Extreme™
Customer-Driven Networking

Extreme SLX-OS NETCONF Operations Guide, 18r.1.00a

Supporting the Extreme SLX 9850 and 9540 Devices

Legal Notice

Extreme Networks, Inc. reserves the right to make changes in specifications and other information contained in this document and its website without prior notice. The reader should in all cases consult representatives of Extreme Networks to determine whether any such changes have been made.

The hardware, firmware, software or any specifications described or referred to in this document are subject to change without notice.

Trademarks

Extreme Networks and the Extreme Networks logo are trademarks or registered trademarks of Extreme Networks, Inc. in the United States and/or other countries.

All other names (including any product names) mentioned in this document are the property of their respective owners and may be trademarks or registered trademarks of their respective companies/owners.

For additional information on Extreme Networks trademarks, please see: www.extremenetworks.com/company/legal/trademarks

Software Licensing

Some software files have been licensed under certain open source or third-party licenses. End-user license agreements and open source declarations can be found at: www.extremenetworks.com/support/policies/software-licensing

Support

For product support, phone the Global Technical Assistance Center (GTAC) at 1-800-998-2408 (toll-free in U.S. and Canada) or +1-408-579-2826. For the support phone number in other countries, visit: http://www.extremenetworks.com/support/contact/

For product documentation online, visit: https://www.extremenetworks.com/documentation/

Contents

Preface

This section discusses the conventions used in this guide, ways to provide feedback, additional help, and other Extreme Networks® publications.

Conventions

This section discusses the conventions used in this guide.

Notes, cautions, and warnings

Notes, cautions, and warning statements may be used in this document. They are listed in the order of increasing severity of potential hazards.

NOTE
A Note provides a tip, guidance, or advice, emphasizes important information, or provides a reference to related information.

ATTENTION
An Attention statement indicates a stronger note, for example, to alert you when traffic might be interrupted or the device might reboot.

CAUTION
A Caution statement alerts you to situations that can be potentially hazardous to you or cause damage to hardware, firmware, software, or data.

DANGER
A Danger statement indicates conditions or situations that can be potentially lethal or extremely hazardous to you. Safety labels are also attached directly to products to warn of these conditions or situations.

Text formatting conventions

Text formatting conventions such as boldface, italic, or Courier font may be used to highlight specific words or phrases.

Format	Description
bold text	Identifies command names.
	Identifies keywords and operands.
	Identifies the names of GUI elements.
	Identifies text to enter in the GUI.
italic text	Identifies emphasis.
	Identifies variables.
	Identifies document titles.

Format	Description
Courier font	Identifies CLI output.
	Identifies command syntax examples.

Command syntax conventions

Bold and italic text identify command syntax components. Delimiters and operators define groupings of parameters and their logical relationships.

Convention	Description
bold text	Identifies command names, keywords, and command options.
italic text	Identifies a variable.
[ ]	Syntax components displayed within square brackets are optional.
	Default responses to system prompts are enclosed in square brackets.
{ **x** | **y** | **z** }	A choice of required parameters is enclosed in curly brackets separated by vertical bars. You must select one of the options.
x | **y**	A vertical bar separates mutually exclusive elements.
< >	Nonprinting characters, for example, passwords, are enclosed in angle brackets.
…	Repeat the previous element, for example, *member*[*member*…].
\	Indicates a "soft" line break in command examples. If a backslash separates two lines of a command input, enter the entire command at the prompt without the backslash.

Documentation and Training

To find Extreme Networks product guides, visit our documentation pages at:

Current Product Documentation	www.extremenetworks.com/documentation/
Archived Documentation (for earlier versions and legacy products)	www.extremenetworks.com/support/documentation-archives/
Release Notes	www.extremenetworks.com/support/release-notes
Hardware/Software Compatibility Matrices	https://www.extremenetworks.com/support/compatibility-matrices/
White papers, data sheets, case studies, and other product resources	https://www.extremenetworks.com/resources/

Open Source Declarations

Some software files have been licensed under certain open source licenses. More information is available at: www.extremenetworks.com/support/policies/open-source-declaration/.

Training

Extreme Networks offers product training courses, both online and in person, as well as specialized certifications. For more information, visit www.extremenetworks.com/education/.

Getting Help

If you require assistance, contact Extreme Networks using one of the following methods:

- GTAC (Global Technical Assistance Center) for Immediate Support

  – **Phone:** 1-800-998-2408 (toll-free in U.S. and Canada) or +1 408-579-2826. For the support phone number in your country, visit: www.extremenetworks.com/support/contact
  – **Email:** support@extremenetworks.com. To expedite your message, enter the product name or model number in the subject line.

- Extreme Portal — Search the GTAC knowledge base, manage support cases and service contracts, download software, and obtain product licensing, training, and certifications.

- The Hub — A forum for Extreme Networks customers to connect with one another, answer questions, and share ideas and feedback. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.

Before contacting Extreme Networks for technical support, have the following information ready:

- Your Extreme Networks service contract number and/or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any action(s) already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental information)
- Network load at the time of trouble (if known)
- The device history (for example, if you have returned the device before, or if this is a recurring problem)
- Any related RMA (Return Material Authorization) numbers

Subscribing to Service Notifications

You can subscribe to email notifications for product and software release announcements, Vulnerability Notices, and Service Notifications.

1. Go to www.extremenetworks.com/support/service-notification-form.

2. Complete the form with your information (all fields are required).

3. Select the products for which you would like to receive notifications.

   > NOTE
   > You can modify your product selections or unsubscribe at any time.

4. Click **Submit**.

Providing Feedback to Us

Quality is our first concern at Extreme Networks, and we have made every effort to ensure the accuracy and completeness of this document. We are always striving to improve our documentation and help you work better, so we want to hear from you! We welcome all feedback but especially want to know about:

- Content errors or confusing or conflicting information.
- Ideas for improvements to our documentation so you can find the information you need faster.

- Broken links or usability issues.

If you would like to provide feedback to the Extreme Networks Information Development team, you can do so in two ways:

- Use our short online feedback form at https://www.extremenetworks.com/documentation-feedback/.
- Email us at documentation@extremenetworks.com.

Please provide the publication title, part number, and as much detail as possible, including the topic heading and page number if applicable, as well as your suggestions for improvement.

About This Document

This document is released in conjunction with SLX-OS 18r.1.00a.

Interface module capabilities

The following table lists the supported capabilities for the following ExtremeRouting SLX 9850 interface modules:

- BR-SLX9850-10Gx72S-M
- BR-SLX9850-100Gx36CQ-M
- BR-SLX9850-10Gx72S-D
- BR-SLX9850-100Gx36CQ-D

TABLE 1 ExtremeRouting SLX 9850 interface modules capabilities

Capability	Modular interface module
MPLS	Yes
Packet Buffers per interface module	12 GB (72x10G) 36 GB (Flex)

Supported hardware and software

In those instances in which procedures or parts of procedures documented here apply to some devices but not to others, this guide identifies exactly which devices are supported and which are not.

Although many different software and hardware configurations are tested and supported by this release, documenting all possible configurations and scenarios is beyond the scope of this document.

The following hardware platforms are supported by this release:

- ExtremeRouting SLX 9850-4 router
- ExtremeRouting SLX 9850-8 router
- ExtremeSwitching SLX 9540 switch

To obtain information about other releases, refer to the documentation specific to that release.

Interface module capabilities

The following table lists the supported capabilities for the following SLX 9850 interface modules:

- BR-SLX9850-10Gx72S-M
- BR-SLX9850-100Gx36CQ-M
- BR-SLX9850-10Gx72S-D
- BR-SLX9850-100Gx36CQ-D

- BR-SLX9850-100Gx12CQ-M

TABLE 2 SLX 9850 interface modules capabilities

Capability	Modular interface module
MPLS	Yes
Packet buffer memory per interface module	12GB (BR-SLX9850-10Gx72S-M) 36GB (BR-SLX9850-100Gx36CQ-M) 8GB (BR-SLX9850-10Gx72S-D) 24GB (BR-SLX9850-100Gx36CQ-D) 8GB (BR-SLX9850-100Gx12CQ-M)

What's new in this document

On October 30, 2017, Extreme Networks, Inc. acquired the data center networking business from Brocade Communications Systems, Inc. This document has been updated to remove or replace references to Brocade Communications, Inc. with Extreme Networks., Inc., as appropriate .

For the complete list of supported features and the summary of enhancements and configuration notes for this release, refer to the Extreme SLX-OS OS Release Notes.

NETCONF Overview

NETCONF and YANG

Extreme SLX-OS provides support for the Network Configuration Protocol (NETCONF) and the YANG data modeling language. Using Extensible Markup Language (XML) constructs, the NETCONF protocol provides the ability to manipulate configuration data and view state data modeled in YANG. NETCONF uses a client/server architecture in which remote procedure calls (RPCs) manipulate the modeled data across a secure transport, such as Secure Shell version 2 (SSHv2).

NETCONF provides mechanisms through which you can perform the following operations:

- •   Manage network devices
- •   Retrieve configuration data and operational state data
- •   Upload and manipulate configurations

NETCONF is partitioned conceptually into four layers.

NETCONF in client/server architecture

The NETCONF protocol uses RPCs to facilitate communication between the client (NETCONF Manager or application) and the server (NETCONF Agent or managed device).

A client encodes an RPC request in XML and sends it to a server using a secure, connection-oriented session. The server responds with a reply encoded in XML.

The communication between the client and server consists of a series of alternating request and reply messages. The NETCONF peers use <rpc> and <rpc-reply> elements to provide transport protocol-independent framing of NETCONF requests and responses. The NETCONF server processes the RPC requests sequentially in the order in which they are received.

RPC request

The <rpc> element is used for enclosing a NETCONF request sent from the client to the server.

Every <rpc> element contains a mandatory attribute, the message-id. This attribute has a unique value for every RPC request, and is used to associate every RPC request with the corresponding response. The message-id value is a monotonically increasing integer string. The maximum length of the string is 4095 characters. If the message-id is not present in the RPC request, the server rejects the request by returning an <rpc-error> with an <error-tag> element set to "missing-attribute".

If there are any additional attributes present in the RPC request, the NETCONF server returns them unmodified in the corresponding RPC reply.

RPC reply

An <rpc-reply> element is sent in response to every RPC request.

The <rpc-reply> element contains the mandatory attribute message-id copied from the corresponding RPC request, along with any additional attributes that are present in the RPC request.

For successfully processed <get> or <get-config> requests, the response data is encoded as the content of the <rpc-reply> element.

For successfully processed <edit-config> or <close-session> requests, the <ok> element is encoded as the content of the <rpc-reply> element.

For unsuccessful RPC requests, one or more <rpc-error> elements are encoded inside the <rpc-reply> element.

RPC and error handling

If the RPC request fails, an <rpc-error> element is encoded inside the <rpc-reply> element and sent to the client.

The <rpc-error> element indicates the first detected error. The server is not required to detect or report multiple errors. If the server detects multiple errors then the order of the error detection and reporting is at the discretion of the server.

SSH subsystem

The NETCONF client must use Secure Shell Version 2 (SSHv2) as the network transport to connect to the NETCONF server. Only the SSHv2 protocol is supported as the NETCONF transport protocol.

To run NETCONF over SSHv2, the client establishes an SSH transport connection using the SSH transport protocol to the NETCONF port. The default NETCONF port is 830. The underlying SSH client and server exchange keys for message integrity and encryption.

The SSHv2 client invokes the ssh-userauth service to authenticate the user. All currently supported SSH user authentication methods such as the public-key, password, and keyboard-interactive authentications are supported for a NETCONF session also. If the SSH user authentication is disabled, the user is allowed full access.

On successful user authentication, the client invokes the ssh-connection service, also known as the SSH connection protocol. After the SSH session is established, the NETCONF client invokes NETCONF as an SSH subsystem called netconf.

RFC references

For details about NETCONF and YANG as defined by the Internet Engineering Task Force (IETF), refer to the following documents:

- RFC 6241, "NETCONF Configuration Protocol."
- RFC 4742 "Using the NETCONF Configuration Protocol over Secure Shell (SSH)."
- RFC 6020, "YANG - A Data Modeling Language for the Network Configuration Protocol (NETCONF)"
- RFC 6021, "Common YANG Data Types"

Using NETCONF

Establishing a NETCONF session

Up to 16 concurrent sessions can be established with a NETCONF server. A session times out if it is idle for 30 minutes.

Each NETCONF session begins with a handshake in which the NETCONF server and the client specify the NETCONF capabilities they support. The following sections describe the message exchange on starting a NETCONF session.

Hello messages exchange

After establishing a secure transport connection, both the NETCONF server and client send a <hello> element simultaneously to announce their capabilities and session identifier.

The NETCONF server must include the <session-id> element in the <hello> element. The <session-id> element contains the unique session value for the NETCONF session. If the client receives the <hello> element without the <session-id>, the client aborts the NETCONF session by closing the underlying SSH session.

The NETCONF client must not include the <session-id> element in the <hello> element. If the server receives the <hello> element with the <session-id>, the server aborts the NETCONF session by closing the underlying SSH session.

The NETCONF client must include a valid xmlns attribute in the <hello> element. If the server receives the <hello> element without a valid xmlns attribute, the server aborts the NETCONF session by closing the underlying SSH session.

The NETCONF client must include a base capability. The server receiving the <hello> element without a NETCONF base capability aborts the NETCONF session by closing the underlying SSH session.

The server receiving an <rpc> element without first receiving a <hello> element aborts the NETCONF session by closing the underlying SSH session.

The following example shows a <hello> element from the NETCONF server.

```
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <capabilities>
        <capability>urn:ietf:params:netconf:base:1.0</capability>
        <capability>urn:ietf:params:netconf:capability:writable-running:1.0    </capability>
        <capability>urn:ietf:params:netconf:capability:startup:1.0</capability>
        <capability>urn:ietf:params:netconf:capability:xpath:1.0</capability>
        <capability>urn:ietf:params:netconf:capability:validate:1.0</capability>
        <capability>http://tail-f.com/ns/netconf/actions/1.0</capability>
        <capability>http://tail-f.com/ns/aaa/1.1?revision=2010-06-17&module=tailfaaa</capability>
        <capability>urn:brocade.com:mgmt:brocade-aaa?revision=2010-10-21&module=brocade-aaa</capability>
        <capability>urn:brocade.com:mgmt:brocade-aaa-ext?revision=2010-09-21&module=brocade-aaa-ext</capability>
        <capability>urn:brocade.com:mgmt:brocade-cdp?revision=2010-08-17&module=brocade-cdp</capability>
        <capability>urn:brocade.com:mgmt:brocade-cee-map?revision=2011-04-18&module=brocade-cee-map</capability>
        <capability>urn:brocade.com:mgmt:brocade-chassis?revision=2011-04-11&module=brocade-chassis</capability>
```

```
    </capabilities>
    (output truncated)
    <session-id>4</session-id>
</hello>
```

Server capabilities

A NETCONF capability is a set of protocol extensions that supplements the base NETCONF specification.

A NETCONF capability is identified with a Uniform Resource Identifier (URI). Capabilities augment the base operations of the NETCONF server, describing both the additional operations and the contents allowed inside the operations. To support a capability, the NETCONF server must support all the dependent capabilities.

The following capabilities are supported on SLX-OS switches:

- Base capability—The set of operations and contents that any NETCONF implementation must support. The URI for the base capability is urn:ietf:param:xml:ns:netconf:base:1.0. Both the NETCONF client and server must support the base capability.

- Writable-running capability—Indicates that the device supports <edit-config> and <copy-config> operations where the <running> configuration is the target. The URI is urn:ietf:params:netconf:capability:writable-running:1.0.

- Startup capability—Supports separate datastores for the running and startup configuration. Operations performed on the running-config datastore do not affect the startup configuration until a <copy-config> operation is performed to explicitly copy the running configuration to the startup configuration. The URI for the startup capability is urn:ietf:params:netconf:capability:startup:1.0.

- Xpath capability—Supports XPath expressions in <filter> elements. <filter> elements are used in <get> and <get-config> operations to limit the scope of the retrieved data. The URI for the xpath capability is urn:ietf:params:netconf:capability:xpath:1.0.

- Validate capability—Allows validation to be performed on a configuration. The URI for the validate capability is urn:ietf:params:netconf:capability:validate:1.0.

- Actions capability—Allows operations to be performed on the datastore using the custom action mechanism for features that are supported by this mechanism in the YANG code. Refer to "Using the custom action mechanism" on page 17 for details. The URI for the actions capability is http://tail-f.com/ns/netconf/actions/1.0.

- tail-aaa capability—Supports proprietary authentication, authorization, and accounting (AAA). The URI for the tail-aaa capability is http://tail-f.com/ns/aaa/1.1?revision=2010-06-17&module=tailf-aaa.

- Extreme proprietary capabilities—A set of capabilities that support Extreme SLX-OS features. Each capability references a namespace containing instance data. Each namespace corresponds to a file containing the YANG module that models the data. For example, the brocade-cee-map capability at URI urn:extreme.com:mgmt:extreme-cee-map? revision=2018-11-10&module=extreme-cee-map provides support for the features modeled in the brocade-cee-map module.

For an overview of each YANG module and structural details, refer to the Extreme SLX-OS YANG Reference Manual. For element definitions, refer to the specific YANG file .

> NOTE
> The Candidate Configuration capability and Confirmed Commit capability are not
> supported.

Client capabilities

The client must support the base capability.

In addition, Extreme recommends that the client specify the identification capability with URI http://tail-f.com/ns/netconf/identification/1.0 while establishing a session with the server. This capability provides client information to the server, including the vendor, product name, and version of the client application in addition to user information. Server administrators can subsequently gather information about who is accessing the server using the show netconf client-capabilities command or the <get-netconf-client-capabilities>custom RPC. Refer to Appendix A, "Managing NETCONF," for details.

The following example shows a <hello> element from the NETCONF client.

```
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <capabilities>
        <capability>urn:ietf:params:netconf:base:1.0</capability>
        <capability>http://tail-f.com/ns/netconf/identification/1.0?
vendor=extreme&amp;product=bna&amp;version=3.0&amp;client-identity=adminUser</capability>
    </capabilities>
</hello>
```

Retrieving configuration data

You can retrieve configuration data using either the <get-config> or <get> RPC. RFC 4741, NETCONF Configuration Protocol specifies that the <get-config> RPC returns only configuration data while the <get> RPC returns configuration data and operational state data.

In the Extreme implementation, the <get> RPC does not return operational state data; Extreme instead provides a set of Custom RPCs and actions for returning operational state data. In the Extreme implementation, the <get-config> and <get> operations are essentially the same. This document will typically refer to the <get-config> operation, though <get> can be used equally.

The following example shows a client message that issues the <get-config> operation in its most basic form. It retrieves the entire running configuration.

```
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="200" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <get-config>
        <source>
        <running/>
        </source>
    </get-config>
</rpc>
```

Such a request, however, typically results in an unwanted or unmanageable amount of output. To restrict the output to the portion of the configuration you want, Extreme supports two types of filtering: subtree filtering and xpath filtering.

For complete details about subtree filtering and xpath filtering, refer to the RFC 4741, The NETCONF Protocol. The following sections provide some examples.

Subtree filtering

Subtree filtering defines a point in the configuration hierarchy that limits the returned configuration data.

Only data at this point and the subtrees below it are returned. For example, to retrieve the loopback configuration for all loopback interfaces configured on the device, use the following filter. This operation returns all configuration data for all loop ports on the managed device.

```
<?xml version="1.0" ?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <get-config>
        <source>
```

```
            <running/>
        </source>
        <filter type="subtree">
            <routing-system xmlns="urn:brocade.com:mgmt:brocade-common-def">
                <interface xmlns="urn:brocade.com:mgmt:brocade-interface">
                    <loopback xmlns="urn:brocade.com:mgmt:brocade-intf-loopback">
                        <id>1</id>
                    </loopback>
                </interface>
            </routing-system>
        </filter>
    </get-config>
</rpc>
```

The purpose of each filter element is as follows:

- The <filter> element tag contains a type statement that identifies the filter type as a subtree filter.

- The <interface> element constrains the output to the interface configuration in the urn:brocade.com:mgmt:brocade-interface namespace.

- The <loopback> element further constrains the output to the information under the <loopback> node. Used in this way, <loopback> is termed a containment node.

To further restrict the output and retrieve loopback configuration data for only one specific loopback interface, use the following filter. In this example, the <id> element is termed a content match node; the filter returns the values of all loopback attributes for the specified port.

```
<?xml version="1.0" ?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <get-config>
        <source>
            <running/>
        </source>
        <filter type="subtree">
            <routing-system xmlns="urn:brocade.com:mgmt:brocade-common-def">
                <interface xmlns="urn:brocade.com:mgmt:brocade-interface">
                    <loopback xmlns="urn:brocade.com:mgmt:brocade-intf-loopback">
                        <id>1</id>
                        <vrf/>
                    </loopback>
                </interface>
            </routing-system>
        </filter>
    </get-config>
</rpc>
```

If all you want to know is the setting of one specific loopback port attribute, such as the name of VRF, use a filter such as the following. In this case, <vrf> suppresses the inclusion of all its sibling nodes. It is termed a selection node.

```
<?xml version="1.0" ?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <get-config>
        <source>
            <running/>
        </source>
        <filter type="subtree">
            <routing-system xmlns="urn:brocade.com:mgmt:brocade-common-def">
                <interface xmlns="urn:brocade.com:mgmt:brocade-interface">
                    <loopback xmlns="urn:brocade.com:mgmt:brocade-intf-loopback">
                        <id>1</id>
                        <vrf>
                            <forwarding/>
                        </vrf>
                    </loopback>
                </interface>
            </routing-system>
        </filter>
```

```
            </get-config>
        </rpc>
```

The following example retrieves the configuration for the loopback interface.

```
        <?xml version="1.0" ?>
        <rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
            <get-config>
                <source>
                    <running/>
                </source>
                <filter type="subtree">
                    <routing-system xmlns="urn:brocade.com:mgmt:brocade-common-def">
                        <interface xmlns="urn:brocade.com:mgmt:brocade-interface">
                            <loopback xmlns="urn:brocade.com:mgmt:brocade-intf-loopback">
                                <id>1</id>
                                <shutdown/>
                            </loopback>
                        </interface>
                    </routing-system>
                </filter>
            </get-config>
        </rpc>
```

xpath filtering

Sometimes the data element that qualifies the information you want is at a lower level in the data hierarchy than the information you need.

For example, if you want to return a list of interfaces that are bound to a CoS-to-CoS mutation QoS map, the element to be used for the selection criteria (<cos-mutation>name</cos-mutation>) resides at a lower level in the hierarchy than the information to be retrieved (the interface name), as shown in the following representation of the QoS map structure. In such cases, you must use an xpath filter and not a subtree filter.

```
        | +--rw ethernet [name]
        +--rw name                     interface-type
        .
        .
        .
        +--rw qos:qos
        +--rw qos:default-cos?          int32
        +--rw qos:cos-mutation?          map-name-type
        +--rw qos:cos-traffic-class?    map-name-type
        +--rw qos:dscp-mutation?        map-name-type
```

The following example returns the interface names to which the CoS-to-CoS mutation QoS map named "test" is bound. In this case, the map named "test" is bound to interfaces 2/5 and 2/6. The <filter> element tag specifies that the filter type is xpath and also specifies the data path and selection criteria.

```
        <?xml version="1.0" encoding="UTF-8"?>
        <rpc xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="205">
            <get-config>
                <source>
                    <running></running>
                </source>
                    <filter type="xpath" select="/interface/ethernet/qos[cos-mutation='test']"></filter>
            </get-config>
        </rpc>

        <rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
        message-id="205">
            <data>
                <interface xmlns="urn:brocade.com:mgmt:brocade-interface">
                    <ethernet>
                        <name>0/5</name>
                        <qos xmlns="urn:brocade.com:mgmt:brocade-qos">
```

```
                        <default-cos>0</default-cos>
                        <cos-mutation>test</cos-mutation>
                    </qos>
                </ethernet>
                <ethernet>
                    <name>0/6</name>
                    <qos xmlns="urn:brocade.com:mgmt:brocade-qos">
                        <default-cos>0</default-cos>
                        <cos-mutation>test</cos-mutation>
                    </qos>
                </ethernet>
            </interface>
        </data>
    </rpc-reply>
```

Retrieving operational data

In the Extreme SLX-OS implementation of NETCONF, two mechanisms are used for retrieving operational data: Extreme custom RPCs and custom actions.

Custom RPC and action support is added to some of the YANG modules to support the return of specific operational data.

For a complete list of the Extreme Custom RPCs and actions, and their locations, refer to the *Extreme SLX-OS YANG Reference Manual*.

Extreme SLX-OS does not support retrieving operational data using the standard <get> RPC.

Using custom RPCs

If an RPC is defined in a YANG module, you can use that RPC to return the associated namespace information defined in its output elements.

For example, to return information about port-profiles to which interfaces are applied, you can use the <get-port-profile-for-intf> RPC defined in the brocade-port-profile-ext.yang file.

The brocade-port-profile-ext.yang file defines the structure of the <get-port-profile-for-intf> RPC as follows:

```
+---x get-port-profile-for-intf
    +--ro input
        +--ro interface-type? enumeration
        +--ro interface-name? union
    +--ro output
        +--ro interface
        +--ro interface-type? enumeration
        +--ro interface-name? union
        +--ro port-profile
            +--ro name? common-def:name-string64
```

The following example shows the <rpc> message and reply. The <get-port-profile-for-intf> element contains an xmlns attribute that identifies the corresponding namespace.

```
<rpc xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="206">
    <get-port-profile-for-intf xmlns="urn:brocade.com:mgmt:brocade-interface-ext"/>
</rpc>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="206">
    <interface xmlns="urn:brocade.com:mgmt:brocade-port-profile-ext">
        <interface-type>ethernet</interface-type>
        <interface-name>2/5</interface-name>
        <port-profile>
            <name>auto-VM_Network</name>
        </port-profile>
    </interface>
```

```
    <interface xmlns="urn:brocade.com:mgmt:brocade-port-profile-ext">
        <interface-type>ethernet</interface-type>
        <interface-name>2/5</interface-name>
        <port-profile>
            <name>auto-for_iscsi</name>
        </port-profile>
    </interface>
</rpc-reply>
```

Refer to the *Extreme SLX-OS YANG Reference Manual* for a list of Custom RPCs, a brief description of their function, and their location.

Retrieving operational data with pagination

Some RPCs return operational data that consists of lists of entities. For example, an RPC might return detailed information about every interface. For these kinds of applications, to make the output manageable, pagination is supported by providing a <has-more> element in the output of the RPC.

The following example shows how the <has-more> element works to provide pagination for the <get-vlan-brief> RPC. In the input, you can request information about a specific VLAN, or about all VLANs by not providing an input parameter. If you request input about all VLANs, you will first receive information about the VLAN with the lowest VLAN ID. You can then check the <has-more> element in the output to determine whether information is available for additional VLANs. If <has-more> is true, use the value returned in <last-vlan-id> as the <last-rcvd--vlan-id> input parameter to the next call to <get-vlan-brief>. The <get-vlan-brief> RPC then returns the next available VLAN. Continue until <has-more> returns false.

```
+---x get-vlan-brief
    +--ro input
    | +--ro (request-type)?
    | +--:(get-request)
    | | +--ro vlan-id? interface:vlan-type
    | +--:(get-next-request)
    | +--ro last-rcvd-vlan-id? interface:vlan-type
    +--ro output
      +--ro vlan [vlan-id]
    | +--ro vlan-id interface:vlan-type
    | +--ro vlan-type? enumeration
    | +--ro vlan-name? string
    | +--ro vlan-state? enumeration
    | +--ro interface [interface-type interface-name]
    | +--ro interface-type enumeration
    | +--ro interface-name union
    | +--ro tag? enumeration
    +--ro last-vlan-id? interface:vlan-type
    +--ro has-more? boolean
```

The following example uses the <get-interface-brief> RPC to return information about the first VLAN. In this case, the first VLAN is VLAN 20.

```
<rpc message-id="207" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <get-vlan-brief xmlns="urn:brocade.com:mgmt:brocade-interface-ext">
    </get-vlan-brief>
</rpc>

<rpc-reply message-id="207" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <vlan xmlns="urn:brocade.com:mgmt:brocade-interface-ext">
        <vlanid>20</vlanid>
        <vlan-type>static</vlan-type>
        <vlan-name>vlan-20</vlan-name>
        <vlan-state>active</valan-state>
        <interface>
            <interface-type>ethernet</interface-type>
            <interfce-name>2/5</interface-name>
            <tag>tagged</tag>
        </interface>
    </vlan>
    <last-vlan-id>20</last-vlan-id>
```

```
        <has-more>true</has-more>
    </rpc-reply>
```

The <has-more> field is true, so use the value returned in <last-vlan-id> as the <last-rcvd-vlan-id> in the next call to <get-vlan-brief> to return information about the next VLAN.

```
<rpc message-id="208" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <get-vlan-brief xmlns="urn:brocade.com:mgmt:brocade-interface-ext">
        <last-rcvd-vlan-id>20</last-rcvd-vlan-id>
    </get-vlan-brief>
</rpc>

<rpc-reply message-id="208" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <vlan xmlns="urn:brocade.com:mgmt:brocade-interface-ext">
        <vlanid>30</vlanid>
        <vlan-type>static</vlan-type>
        <vlan-name>vlan-30</vlan-name>
        <vlan-state>active</valan-state>
        <interface>
            <interface-type>ethernet</interface-type>
            <interfce-name>2/5</interface-name>
            <tag>tagged</tag>
        </interface>
    </vlan>
    <last-vlan-id>30</last-vlan-id>
    <has-more>false</has-more>
</rpc-reply>
```

If the <has-more> field returns false, no more VLAN data can be retrieved.

Using the custom action mechanism

An action is a proprietary mechanism used for implementing operations that do not affect the configuration datastore. Several implementations of actions exist in the Extreme SLX-OS implementation for retrieving operational information.

The following structure is defined in the extreme-zone.yang module for displaying operational data related to zoning.

```
+--rw common-def:show
    +--rw extreme-zone:zoning
        +--action extreme-zone:operation-info
            +--input
            +--output
                +--ro extreme-zone:db-max
                +--ro extreme-zone:db-avail
                +--ro extreme-zone:db-committed
                +--ro extreme-zone:db-transaction
                +--ro extreme-zone:transaction-token
                +--ro extreme-zone:last-zone-changed-timestamp
                +--ro extreme-zone:last-zone-committed-timestamp
```

The following example shows use of the <zoning>/<operation-info> action.

```
<rpc xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="209">
    <nca:action xmlns:nca="http://tail-f.com/ns/netconf/actions/1.0">
        <nca:data>
            <show xmlns="urn:extreme.com:mgmt:extreme-common-def">
                <zoning xmlns="urn:extreme.com:mgmt:extreme-zone"/>
            </show>
        </nca:data>
    </nca:action>
</rpc>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
message-id="209">
    <zoning xmlns="urn:extreme.com:mgmt:extreme-zone">
        <db-max>1045274</db-max>
        <db-avail>1043895</db-avail>
```

```
        <db-committed>367</db-committed>
        <db-transaction>373</db-transaction>
        <transaction-token>1</transaction-token>
        <last-zone-changed-timestamp>2011-11-16 16:54:31 GMT-7:00</last-zone-changed-timestamp>
        <last-zone-committed-timestamp>2011-11-16 16:23:44 GMT-7:0</last-zone-committed-timestamp>
    </zoning>
</rpc-reply>
```

For a list of available actions and their locations, refer to the *Extreme SLX-OS YANG Reference Manual.*

Editing the configuration

All configuration editing is done using the merge or delete operations of the <edit-config> RPC. The create and replace operations are not supported.

Refer to RFC 4741, The NETCONF Protocol, for details about these operations.

> **NOTE**
> Every NETCONF <edit-config> request should have a one-to-one mapping with a Extreme SLX-OS CLI command. You cannot combine two CLI operations into one NETCONF request.

The following example of the default merge operation adds a static address to the MAC address table. The operation is performed on the running configuration and configures the <mac-address-table> node in the urn:brocade.com:mgmt:brocade-mac-address-table namespace.

```
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="210" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <edit-config>
        <target>
            <running/>
        </target>
        <config>
            <mac-address-table xmlns="urn:brocade.com:mgmt:brocade-mac-address-table">
                <static>
                    <mac-address>0011.2222.3333</mac-address>
                    <forward>forward</forward>
                    <interface-type>ethernet</interface-type>
                    <interface-name>2/5</interface-name>
                    <vlan>vlan</vlan>
                    <vlanid>100</vlanid>
                </static>
            </mac-address-table>
        </config>
    </edit-config>
</rpc>

<rpc-reply message-id="210" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <ok/>
</rpc-reply>
```

The delete operation is used to remove or disable part of the configuration. The following example disables MSTP on the managed device.

```
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="211" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <edit-config>
        <target>
            <running/>
        </target>
        <config>
            <protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
                <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
                    <mstp xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" Operation="delete"/>
                </spanning-tree>
```

```
            </protocol>
        </config>
    </edit-config>
</rpc>

<rpc-reply message-id="211" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <ok/>
</rpc-reply>
```

Managing the configuration

Extreme SLX-OS provides the custom <bna-config-cmd> PRC for performing any of the following operations:

- Copy the *running-config* file to a remote file.
- Copy a remote file to the *running-config* file.

Some simple examples are provided here. Refer to the *Extreme SLX-OS Administrator's Guide* for the following related information:

- General configuration management concepts
- Details and recommendations about how to apply these operations in a modular chassis or a Extreme VCS Fabric or a IP Fabric
- How to perform management configuration using the Extreme SLX-OS command line interface (CLI)

To monitor the progress of the copy operation, issue the <bna-config-cmd-status> custom RPC. Provide the session-ID returned by the corresponding <bna-config-cmd> as the input parameter.

```
<rpc xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="212">
    <bna-config-cmd-status xmlns="urn:brocade.com:mgmt:brocade-ras">
        <session-id>5</session-id>
    </bna-config-cmd-status>
</rpc>

<rpc-reply message-id="212" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <status xmlns="urn:brocade.com:mgmt:brocade-ras">completed</status>
</rpc-reply>
```

To archive or back up the *running-config* file, specify <running/> as the <src> parameter, and the URL of the archive as the <dest> parameter. The following example archives the running-config file.

```
<rpc xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="212">
    <bna-config-cmd xmlns="urn:brocade.com:mgmt:brocade-ras">
        <src>running-config</src>
        <dest>https://user@brocade.com:passphrase/cfg/archiveMay7.txt</dest>
    </bna-config-cmd>
</rpc>

<rpc-reply message-id="212" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <session-id xmlns="urn:brocade.com:mgmt:brocade-ras">6</session-id>
    <status xmlns="urn:brocade.com:mgmt:brocade-ras">in-progress</status>
</rpc-reply>
```

To restore an archived configuration, specify the archive URL as the <source> parameter and <running/> as the <target>.

```
<rpc xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="212">
    <bna-config-cmd xmlns="urn:brocade.com:mgmt:brocade-ras">
        <src>https://user@brocade.com:passphrase/cfg/archiveMay7.txt</src>
        <dest>running-config</dest>
    </bna-config-cmd>
</rpc>

<rpc-reply message-id="212" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <session-id xmlns="urn:brocade.com:mgmt:brocade-ras">6</session-id>
    <status xmlns="urn:brocade.com:mgmt:brocade-ras">in-progress</status>
</rpc-reply>
```

Disconnecting from a NETCONF session

To disconnect from a NETCONF session, issue the standard <close-session> RPC.

This operation causes the server to release any resources associated with the session and gracefully close any associated connections.

```
<rpc message-id="215" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <close-session/>
</rpc>

<rpc-reply message-id="215" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <ok/>
</rpc-reply>
```

The <kill-session> RPC is also supported. Issuing <kill-session> aborts all operations and closes the session.

Basic switch management with NETCONF overview

This chapter provides procedures for performing some basic switch operations using the NETCONF interface.

Refer to the *Extreme SLX-OS Administrator's Guide* for the following related information:

- Conceptual and overview information
- Using DHCP Automatic Deployment (DAD)
- Procedures for configuring the Ethernet management interface
- Basic switch configuration using the Extreme SLX-OS command line interface (CLI)

Using the NETCONF interface, you can perform the following basic switch configuration operations described in this chapter:

- Use the <edit-config> RPC to set host attributes, configure a line card type on a chassis slot, configure a switch banner, enable or disable first failure data capture (FFDC), and configure logging.
- Use custom actions to enable or disable a chassis, reboot a switch, power on/off a line card, obtain slot and module status, and upload supportSave data.
- Use the <show-raslog> custom RPC to return RASlog messages.

Switch management parameters described in this chapter are defined mostly in the brocade-ras, brocade-linecard-management, and brocade-chassis YANG modules. For structural maps of these YANG modules, refer to the *Extreme SLX-OS YANG Reference Manual*. For definitions and explanations of parameters, refer to the corresponding.yang file.

Connecting to the switch through an SSH session

For NETCONF operations, you must connect to the device using SSH.

1. Connect through a serial port to the device
2. Verify that the network interface of the device is configured and that it is connected to the IP network through the RJ-45 Ethernet port.
3. Log off from the serial port of the device.
4. From a management station, open an SSH connection using the management IP address of the device to which you want to connect.
5. Enter the account user name at the login prompt.
6. Enter the password.

   Extreme recommends that you change the default account password when you log in for the first time. For more information on changing the default password, refer to the Extreme SLX Hardware Installation Guide.
7. Verify that the login was successful.

   The prompt displays the host name followed by a pound sign (#).

   ```
   login as: admin
   admin@10.20.49.112's password:******

   Welcome to the Extreme SLX-OS Software
   admin connected from 10.1.1.1 using console on F115
   ```

Sample use cases for SLX-OS NETCONF

This chapter discusses common use cases for the Extreme SLX-OS NETCONF.

> **NOTE**
> The information provided in this chapter may not cover the end-to-end configuration. Refer to the *Extreme SLX-OS User Guide* for the complete set of configuration tasks.

STP overview

A network topology of bridges typically contains redundant connections to provide alternate paths in case of link failures. However, because there is no concept of TTL in Ethernet frames, this could result in the permanent circulation of frames if there are loops in the network. To prevent loops, a spanning tree connecting all the bridges is formed in real time.

The redundant ports are put in a blocking (nonforwarding) state. They are enabled when required. In order to build a spanning tree for the bridge topology, the bridges must exchange control frames (BPDUs - Bridge Protocol Data Units). The protocols define the semantics of the BPDUs and the required state machine. The first Spanning Tree Protocol (STP) became part of the IEEE 802.1d standard.

The STP interface states for every Layer 2 interface running STP are as follows:

- *Blocking* - The interface does not forward frames.
- *Listening* - The interface is identified by the spanning tree as one that should participate in frame forwarding. This is a transitional state after the blocking state.
- *Learning* - The interface prepares to participate in frame forwarding.
- *Forwarding* - The interface forwards frames.
- *Disabled* - The interface is not participating in spanning tree because of a shutdown port, no link on the port, or no spanning tree instance running on the port.

A port participating in spanning tree moves through these states:

- From initialization to blocking
- From blocking to listening or to disabled
- From listening to learning or to disabled
- From learning to forwarding, blocking, or disabled
- From forwarding to disabled

Configuring STP

The process for configuring STP is as follows:

1. Enable STP using the below NETCONF statement.

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <stp></stp>
    </spanning-tree>
</protocol>
```

2. Designate the root switch by using the bridge-priority command. The range is 0 through 61440 and the priority values can be set only in increments of 4096.

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <stp>
            <bridge-priority>32768</bridge-priority>
        </stp>
    </spanningtree>
</protocol>
```

3. Enable port fast on switch ports by using the **spanning-tree portfast** command.

> **NOTE**
> Note the following conditions:

• Port fast only needs to be enabled on ports that connect to workstations or PCs. Repeat these commands for every port connected to workstations or PCs. Do not enable port fast on ports that connect to other switches.

• If BPDUs are received on a port fast enabled interface, the interface loses the edge port status unless it receives a shut/no shut.

• Enabling port fast on ports can cause temporary bridging loops, in both trunking and nontrunking mode.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/5</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <portfast>
                <portfastbasic></portfastbasic>
            </portfast>
        </spanning-tree>
    </ethernet>
</interface>
```

Configuring RSTP

The process for configuring RSTP is as follows.

1. Enable RSTP by using the global **protocol spanning-tree** command.

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp></rstp>
    </spanning-tree>
</protocol>
```

2. Designate the root switch by using the **bridge-priority** command. The range is 0 through 61440 and the priority values can be set only in increments of 4096.

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <bridge-priority>32768</bridge-priority>
        </rstp>
    </spanning-tree>
</protocol>
```

3. Configure the bridge forward delay value to set the time an interface spends in each of the listening and learning states.

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <forward-delay>30</forward-delay>
        </rstp>
    </spanning-tree>
</protocol>
```

4. Configure the bridge maximum aging time value to set the interval time in seconds between messages that the spanning tree receives from the interface.

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <max-age>40</max-age>
        </rstp>
    </spanning-tree>
</protocol>
```

5. Enable the error-disable-timeout timer.

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <error-disable-timeout>
                <enable></enable>
            </error-disable-timeout>
        </rstp>
    </spanning-tree>
</protocol>
```

6. Configure the error-disable-timeout interval value to set the timeout for errors on an interface.

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <error-disable-timeout>
                <interval>500</interval>
            </error-disable-timeout>
        </rstp>
    </spanning-tree>
</protocol>
```

VRF configuration

VRF (Virtual Routing and Forwarding) is a technology that controls information flow within a network by isolating the traffic by partitioning the network into different logical VRF domains.

Every VRF-capable router supports one routing table for each VRF instance. Each VRF-capable router can function as a group of multiple virtual routers on the same physical router. VRF, in conjunction with virtual private network (VPN) solutions, guarantees privacy of information and isolation of traffic within its logical VRF domain.

This chapter provides procedures and examples for configuring VRF using the NETCONF interface.

Using the NETCONF interface, you can perform the following VRF configuration operations:

- Use the *<edit-config>* remote procedure call (RPC) to activate and deactivate VRF globally, set global VRF parameters, activate and deactivate VRF on a port, and to set interface parameters on a specific port.
- Use the <get-config> RPC to verify all or part of the VRF configuration.

VRF parameters are defined in the *brocade-vrf* YANG module. For a structural map of the YANG module, refer to the *Extreme SLX-OS YANG Reference Manual*. For definitions and explanations of all VRF parameters, refer to the *brocade-vrf.yang file*.

Configuring VRF

This chapter provides procedures and examples for configuring VRF using the NETCONF interface.

1. Configure VRF "red".

   ```
   <vrf xmlns="urn:brocade.com:mgmt:brocade-vrf">
           <vrf-name>red</vrf-name>
       </vrf>
   ```

2. Enable the IPv4 or IPv6 address-family support to configure a variety of VRF unicast routing options.

   The below example shows how to enable IPv4 address-family support

   ```
   <vrf xmlns="urn:brocade.com:mgmt:brocade-vrf">
           <vrf-name>Red</vrf-name>
           <address-family>
               <ip>
                   <unicast></unicast>
               </ip>
           </address-family>
       </vrf>
   ```

3. Configure the maximum number of routes to be used for the VRF

   ```
   <vrf xmlns="urn:brocade.com:mgmt:brocade-vrf">
           <vrf-name>red</vrf-name>
           <address-family>
               <ip>
                   <unicast>
                       <max-route>200</max-route>
                   </unicast>
               </ip>
           </address-family>
       </vrf>
   ```

4. Enable the Open Shortest Path First (OSPF) routing protocol over virtual forward and routing (VRF).

   ```
   <router>
           <ospf xmlns="urn:brocade.com:mgmt:brocade-ospf">
               <vrf>red</vrf>
           </ospf>
       </router>
   ```

5. Assign it to an area

   ```
   <router>
           <ospf xmlns="urn:brocade.com:mgmt:brocade-ospfv3">
               <vrf>red</vrf>
               <area>
                   <area-id>0</area-id>
               </area>
           </ospf>
       </router>
   ```

6. Bind the interface to the VRF instance

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ve>
        <name>1</name>
        <vrf xmlns="urn:brocade.com:mgmt:brocade-ip-config">
            <forwarding>red</forwarding>
        </vrf>
    </ve>
</interface>
```

NETCONF Statements

aaa

Configures AAA authentication.

Usage

```
<aaa-config xmlns="urn:brocade.com:mgmt:brocade-aaa">
    <aaa/>
</aaa-config>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

aaa/accounting

Configures login or command accounting; either commands or login information are forwarded to accounting servers.

Usage

```
<aaa-config xmlns="urn:brocade.com:mgmt:brocade-aaa">
    <aaa>
        <accounting/>
    </aaa>
</aaa-config>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

aaa/authentication

Configures the AAA login sequence.

Usage

```
<aaa-config xmlns="urn:brocade.com:mgmt:brocade-aaa">
    <aaa>
        <authentication>
            <login>
                <first>local</first>
            </login>
        </authentication>
    </aaa>
</aaa-config>
```

Parameters

first

Specifies the type of server that will be used for authentication, authorization, and accounting (AAA) on the switch. The local server is the default. Specify one of the following options:

default

Specifies the default mode (local server). Authenticates the user against the local database only. If the password does not match or the user is not defined, the login fails

ldap

Specifies the Lightweight Directory Access Protocol (LDAP) servers

local

Specifies to use the local switch database if prior authentication methods are inactive

local-auth-failback

Specifies to use the local switch database if prior authentication methods are not active or if authentication fails

local

Specifies the local switch database

radius

Specifies the RADIUS servers

local

Specifies to use the local switch database if prior authentication methods are inactive

local-auth-failback

Specifies to use the local switch database if prior authentication methods are not active or if authentication fails.

tacacs+

Specifies the TACACS+ servers

local

Specifies to use the local switch database if prior authentication methods are inactive

local-auth-failback

Specifies to use the local switch database if prior authentication methods are not active or if authentication fails

aaa/authentication/login

Configures the AAA login sequence.

Usage

```
<aaa-config xmlns="urn:brocade.com:mgmt:brocade-aaa">
    <aaa>
        <authentication>
            <login/>
        </authentication>
    </aaa>
</aaa-config>
```

Parameters

authentication
    Specifies the authentication, authorization, and accounting (AAA) on the switch.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

aaa/authentication/login/first

Configures the primary source of authentication.

Usage

```
<aaa-config xmlns="urn:brocade.com:mgmt:brocade-aaa">
    <aaa>
        <authentication>
            <login>
                <first/>
            </login>
        </authentication>
    </aaa>
</aaa-config>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

aaa/authentication/login/second

Configures the secondary source of authentication.

Usage

```
<aaa-config xmlns="urn:brocade.com:mgmt:brocade-aaa">
    <aaa>
        <authentication>
            <login>
                <second/>
            </login>
        </authentication>
    </aaa>
</aaa-config>
```

Parameters

authentication

>   Specifies authentication.

login

>   Specifies login.

second

>   Specifies second.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

aaa/username

Configures a username for AAA login.

Usage

```
<username xmlns="urn:brocade.com:mgmt:brocade-aaa">
    <name>{req_val}</name>
</username>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

aaa/username/desc

Adds describes for the username.

Usage

```
<username xmlns="urn:brocade.com:mgmt:brocade-aaa">
    <name>{req_val}</name>
    <desc/>
</username>
```

Parameters

name

Specifies the username.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

aaa/username/encryption-level

Configures the encryption level for a username.

Usage

```
<username xmlns="urn:brocade.com:mgmt:brocade-aaa">
    <name>{req_val}</name>
    <encryption-level/>
</username>
```

Parameters

name

  Specifies the username.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

aaa/username/role

Configures the role of the user.

Usage

```
<username xmlns="urn:brocade.com:mgmt:brocade-aaa">
    <name>{req_val}</name>
    <role/>
</username>
```

Parameters

name

      Specifies the username.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

acl-policy

Configures, modifies, or retrieves the ACL configuration.

Usage

```
<acl-policy xmlns="urn:brocade.com:mgmt:brocade-acl-policy">
    <global-acl-policy-conf-cmds/>
</acl-policy>
```

Parameters

global-acl-policy-conf-cmds
> Enters the global ACL policy commands mode.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

acl-policy/allow-conflicting-rules

Allows conflicting rules in an ACL table.

Usage

```
<acl-policy xmlns="urn:brocade.com:mgmt:brocade-acl-policy">
    <global-acl-policy-conf-cmds>
        <allow-conflicting-rules/>
    </global-acl-policy-conf-cmds>
</acl-policy>
```

Parameters

global-acl-policy-conf-cmds
> Enters the global ACL policy commands mode.

allow-conflicting-rules
> Allows conflicting rules in an ACL table.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

acl-policy/allow-duplicate-rules

Allows duplicate rules in an ACL table..

Usage

```
<acl-policy xmlns="urn:brocade.com:mgmt:brocade-acl-policy">
    <global-acl-policy-conf-cmds>
        <allow-duplicate-rules/>
    </global-acl-policy-conf-cmds>
</acl-policy>
```

Parameters

global-acl-policy-conf-cmds
> Enters the global ACL policy commands mode.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

arp

Configures, modifies, or retrieves Address Resolution Protocol (ARP).

Usage

```
<arp-entry xmlns="urn:brocade.com:mgmt:brocade-arp">
    <arp-ip-address>{req_val}</arp-ip-address>
</arp-entry>
```

Parameters

arp-ip-address
> The IP adress of the ARP entry.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

bridge-domain

Configures a bridge domain.

Usage

```
<bridge-domain xmlns="urn:brocade.com:mgmt:brocade-bridge-domain">
    <bridge-domain-id>{req_val}</bridge-domain-id>
    <bridge-domain-type>{req_val}</bridge-domain-type>
</bridge-domain>
```

Parameters

bridge-domain-id

Specifies the bridge domian ID.

bridge-domain-type

Specifies the bridge domain type..

peer

Specifies the peer.

Specifies the peer IP address.

load-balance

Specifies load-balance.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

bridge-domain/(bridge-domain-id)/(bridge-domain-type)/bpdu-drop-enable

Enables the Bridge Protocol Data Units (BPDU)-drop feature.

Usage

```
<bridge-domain xmlns="urn:brocade.com:mgmt:brocade-bridge-domain">
    <bridge-domain-id>{req_val}</bridge-domain-id>
    <bridge-domain-type>{req_val}</bridge-domain-type>
    <bpdu-drop-enable/>
</bridge-domain>
```

Parameters

bridge-domain-id
> Specifies the bridge-domain ID.

bridge-domain-type
> Specifies the bridge domain type.

bpdu-drop-enable
> Enables the BPDU drop.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

bridge-domain/(bridge-domain-id)/(bridge-domain-type)/logical-interface

Configures the logical interface.

Usage

```
<bridge-domain xmlns="urn:brocade.com:mgmt:brocade-bridge-domain">
    <bridge-domain-id>{req_val}</bridge-domain-id>
    <bridge-domain-type>{req_val}</bridge-domain-type>
    <logical-interface>
        <port-channel>
            <pc-lif-bind-id>{req_val}</pc-lif-bind-id>
        </port-channel>
    </logical-interface>
</bridge-domain>
```

Parameters

port-channel

Specifies Port Channel as the logical interface.

pc-lif-bind-id

Specifies the Port Channel LIF bind ID.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

bridge-domain/(bridge-domain-id)/(bridge-domain-type)/local-switching

Configures local switching.

Usage

```
<bridge-domain xmlns="urn:brocade.com:mgmt:brocade-bridge-domain">
    <bridge-domain-id>{req_val}</bridge-domain-id>
    <bridge-domain-type>{req_val}</bridge-domain-type>
    <local-switching/>
</bridge-domain>
```

Parameters

bridge-domain-id
> Specifies the bridge-domain ID.

bridge-domain-type
> Specifies the bridge domain type.

local-switching
> Configures local switching.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

bridge-domain/(bridge-domain-id)/(bridge-domain-type)/peer/(peer-ip)/cos

Sets the cos value in the range 0 to 7.

Usage

```
<bridge-domain xmlns="urn:brocade.com:mgmt:brocade-bridge-domain">
    <bridge-domain-id>{req_val}</bridge-domain-id>
    <bridge-domain-type>{req_val}</bridge-domain-type>
    <peer>
        <peer-ip>{req_val}</peer-ip>
        <cos/>
    </peer>
</bridge-domain>
```

Parameters

cos

Specifies the CoS. The range is from 0 through 7.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

bridge-domain-id/(bridge-domain-type)/peer/(peer-ip)/load-balance

Retrieves load-balancing details.

Usage

```
<bridge-domain xmlns="urn:brocade.com:mgmt:brocade-bridge-domain">
    <bridge-domain-id>{req_val}</bridge-domain-id>
    <bridge-domain-type>{req_val}</bridge-domain-type>
    <peer>
        <peer-ip>{req_val}</peer-ip>
        <load-balance/>
    </peer>
</bridge-domain>
```

Parameters

peer

Specifies the peer.

peer-ip

Specifies the peer IP address.

load-balance

Specifies load balance.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

bridge-domain/(bridge-domain-id)/(bridge-domain-type)/peer/(peer-ip)/lsp

Configures label-switched paths (LSPs).

Usage

```
<bridge-domain xmlns="urn:brocade.com:mgmt:brocade-bridge-domain">
    <bridge-domain-id>{req_val}</bridge-domain-id>
    <bridge-domain-type>{req_val}</bridge-domain-type>
    <peer>
        <peer-ip>{req_val}</peer-ip>
        <lsp/>
    </peer>
</bridge-domain>
```

Parameters

bridge-domain-id
> Specifies the bridge domain ID.

bridge-domain-id
> Specifies the bridge domain type.

peer
> Specifies the peer.

peer-ip
> Specifies the peer IP address.

lsp
> Specifies the LSP.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

bridge-domain/(bridge-domain-id)/(bridge-domain-type)/pw-profile

Sets the Pw-profile name.

Usage

```
<bridge-domain xmlns="urn:brocade.com:mgmt:brocade-bridge-domain">
    <bridge-domain-id>{req_val}</bridge-domain-id>
    <bridge-domain-type>{req_val}</bridge-domain-type>
    <pw-profile-name/>
</bridge-domain>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

bridge-domain/(bridge-domain-id)/(bridge-domain-type)/statistics

Configures statistics for a bridge domain?

Usage

```
<bridge-domain xmlns="urn:brocade.com:mgmt:brocade-bridge-domain">
    <bridge-domain-id>{req_val}</bridge-domain-id>
    <bridge-domain-type>{req_val}</bridge-domain-type>
    <statistics/>
</bridge-domain>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

bridge-domain/(bridge-domain-id)/(bridge-domain-type)/vc-id

Configures the VC ID for the bridge domain.

Usage

```
<bridge-domain xmlns="urn:brocade.com:mgmt:brocade-bridge-domain">
    <bridge-domain-id>{req_val}</bridge-domain-id>
    <bridge-domain-type>{req_val}</bridge-domain-type>
    <vc-id-num/>
</bridge-domain>
```

Parameters

vc-id-num

      Specifies the VC ID.

bridge-domain-type

      Specifies the bridge domain type.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

chassis

Configures, modifies, or retrieves the IP address of the virtual chassis.

Usage

```
<hide-virtual-ip-holder xmlns="urn:brocade.com:mgmt:brocade-chassis">
    <chassis>
    <virtual-ip>    10.1.1.1<virtual-ip/>
    </chassis>
</hide-virtual-ip-holder>
```

Parameters

virtual-ip
> The IP address of the virtual chassis.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

chassis/virtual-ip

Configures the chassis the virtual IPv4 address.

Usage

```
<hide-virtual-ip-holder xmlns="urn:brocade.com:mgmt:brocade-chassis">
    <chassis>
        <virtual-ip/>
    </chassis>
</hide-virtual-ip-holder>
```

Parameters

virtual-ip

> Specifies the IP address of the virtual chassis.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

chassis/virtual-ipv6

Configures the chassis the virtual IPv4 address.

Usage

```
<hide-virtual-ip-holder xmlns="urn:brocade.com:mgmt:brocade-chassis">
    <chassis>
        <virtual-ipv6/>
    </chassis>
</hide-virtual-ip-holder>
```

Parameters

virtual-ipv6

Specifies the IPv6 address of the virtual chassis.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

clock

Configures, modifies, or retrieves the system time zone.

Usage

```
<clock-sa xmlns="urn:brocade.com:mgmt:brocade-clock">
    <clock/>
</clock-sa>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

clock/time-zone

Configures, modifies, or retrieves the system time zone.

Usage

```
<clock-sa xmlns="urn:brocade.com:mgmt:brocade-clock">
    <clock>
        <timezone/>
    </clock>
</clock-sa>
```

Parameters

timezone

      Specifies the time zone.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

cluster/{cluster-name}/{cluster-id}

Configures, retrieves, and modifies Multi-Chassis Trunking (MCT) cluster.

Usage

```
<cluster xmlns="urn:brocade.com:mgmt:brocade-mct">
    <cluster-name>{req_val}</cluster-name>
    <cluster-id>{req_val}</cluster-id>
</cluster>
```

Parameters

cluster-name

Specifies the MCT cluster name .

cluster-id

Specifies the MCT cluster ID.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

dai

Manages the IP access list.

Usage

```
<dai-config xmlns="urn:brocade.com:mgmt:brocade-dai">
    <arp/>
</dai-config>
```

Parameters

arp

Specifies the ARP.

History

Release version	History
17r.1.00	This NETCONF call was introduced.

dai/arp/access-list

Manages the IP access list.

Usage

```
<dai-config xmlns="urn:brocade.com:mgmt:brocade-dai">
    <arp>
        <access-list>
            <acl-name>{req_val}</acl-name>
        </access-list>
    </arp>
</dai-config>
```

Parameters

acl-name

Specifies the access control list (ACL) name.

History

Release version	History
17r.1.00	This NETCONF call was introduced.

delay-link-event

Manages the delay link event (DLE).

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <delay-link-event xmlns="urn:brocade.com:mgmt:brocade-dle">
            <delay-link operation="delete"/>
        </delay-link-event>
    </ethernet>
</interface>
```

Parameters

ethernet

Specifies the Physical ethernet interface.

name

Specifies the inetafce name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

dot1x

Configures, retrieves, and modifies 802.1X authentication.

Usage

```
<dot1x xmlns="urn:brocade.com:mgmt:brocade-dot1x">
    <test>
        <timeout/>
    </test>
</dot1x>
```

Parameters

test timeout

The readiness test interval value in seconds. Valid values range from 1 through 65535. The default readiness test interval is 10 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

dot1x/test

Configures the 802.1X readiness test timeout.

Usage

```
<dot1x xmlns="urn:brocade.com:mgmt:brocade-dot1x">
    <test>
        <timeout>20</timeout>
    </test>
</dot1x>
```

Parameters

timeout

> Specifies the interval value in seconds. The value can range from 1 through 65535

dot3ah

Manages the Link OAM Protocol.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
            <link-oam xmlns="urn:brocade.com:mgmt:brocade-dot3ah"/>
        </protocol>
```

Parameters

protocol
> Specifies the protocol.

History

Release version	History
17r.1.01	This NETCONF call was introduced.

event-handler

Creates an event-handler profile.

Usage

```
<event-handler xmlns="urn:brocade.com:mgmt:brocade-event-handler">
    <event-handler-list>
        <name>{req_val}</name>
    </event-handler-list>
</event-handler>
```

Parameters

name

Specifies the name of the event-handler profile. The value can range from 1 through 32 characters. The first character must be alphabetic.

History

Release version	History
17r.1.00	This NETCONF call was introduced.

event-handler/{event-handler-name}/action

Creates or accesses an event-handler profile, which can execute a Python script when a specified trigger occurs.

Usage

```
<event-handler xmlns="urn:brocade.com:mgmt:brocade-event-handler">
    <activate>
        <name>
            <name>{req_val}</name>
            <action-timeout/>
        </name>
    </activate>
</event-handler>
```

Parameters

name

Specifies the name of the event-handler profile.

History

Release version	History
17r.1.00	This NETCONF call was introduced.

hardware

Configures, modifies, or retrieves the hardware management configuration.

Usage

```
<hardware xmlns="urn:brocade.com:mgmt:brocade-hardware">
    <connector>
        <name>{req_val}</name>
        <breakout>
            <cage-mode/>
        </breakout>
    </connector>
</hardware>
```

Parameters

connector *name*

> Specifies the hadrware connnector name.

breakout *name*

> Specifies breakout and enters cage-mode.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ip/access-group

Applies rules specified in an access control list (ACL) to traffic entering or exiting an interface.

Usage

Supported interface types are: FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <fortygigabitethernet>
        <name>1/0/50</name>
        <ip-acl-interface xmlns="urn:brocade.com:mgmt:brocade-ip-access-list">
            <ip>
                <access-group>
                    <ip-access-list>acl11</ip-access-list>
                    <ip-direction>out</ip-direction>
                </access-group>
            </ip>
        </ip-acl-interface>
    </fortygigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name.

ip-access-list

Specifies the ACL name

ip-direction

Specifies the IP direction.

in

Specifies the ACL binding direction as ingress.

out

Specifies the ACL binding direction as egress.

interface/{interface-type}/{interface-name}/ip/arp-aging-timeout

Configures how long an ARP entry stays in cache before the cache refreshes.

Usage

Supported interface types are: FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <ip>
            <ip-config xmlns="urn:brocade.com:mgmt:brocade-ip-config">
                <arp-aging-timeout>220</arp-aging-timeout>
            </ip-config>
        </ip>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name.

arp-aging-timeout

Determines how long an ARP entry stays in cache. The timeout value can range from 0 through 240 minutes.

interface/{interface-type}/{interface-name}/ip/dhcp/relay/gateway

Configures the IP DHCP Relay on a Layer 3 gateway interface.

Usage

Supported interface types are: FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <ip>
            <interface-te-dhcp-conf xmlns="urn:brocade.com:mgmt:brocade-dhcp">
                <dhcp>
                    <relay>
                        <gateway>1.1.1.1</gateway>
                    </relay>
                </dhcp>
            </interface-te-dhcp-conf>
        </ip>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

gateway

Specifies the IPv4 gateway address of the DHCP server where the DHCP client requests are to be forwarded

interface/{interface-type}/{interface-name}/ip/igmp/immediate-leave

Removes a group from the IGMP table immediately following receipt of a Leave Group request.

Usage

Supported interface types are: Port-Channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <ip>
            <igmp-phy-intf-cfg xmlns="urn:brocade.com:mgmt:brocade-igmp">
                <igmp>
                    <immediate-leave></immediate-leave>
                </igmp>
            </igmp-phy-intf-cfg>
        </ip>
    </tengigabitethernet>
</interface>
```

Parameters

name
> Specifies the interface name

immediate-leave
> Enables immediate leave processing

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/igmp/ last-member-query-count

Sets the last-member query count.

Usage

Supported interface types are: Port-Channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface-vlan xmlns="urn:brocade.com:mgmt:brocade-interface">
    <interface>
        <vlan>
            <name>1</name>
            <ip>
                <igmp xmlns="urn:brocade.com:mgmt:brocade-igmp-snooping">
                    <last-member-query-count>3</last-member-query-count>
                </igmp>
            </ip>
        </vlan>
    </interface>
</interface-vlan>
```

Parameters

name
>   Specifies the interface name

last-member-query-count
>   Specifies the last member query count value. The value can range from 2 through 10. The default value is 2

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/igmp/last-member-query-interval

Configures last member query interval.

Usage

Supported interface types are: Port-Channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <ip>
            <igmp-phy-intf-cfg xmlns="urn:brocade.com:mgmt:brocade-igmp">
                <igmp>
                    <last-member-query-interval>1500</last-member-query-interval>
                </igmp>
            </igmp-phy-intf-cfg>
        </ip>
    </tengigabitethernet>
</interface>
```

Parameters

name
> Specifies the interface name

last-member-query-interval
> Specifies last member query interval in milliseconds. The interval can range from 100 through 25500. The default value is 1000 milliseconds

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/igmp/query-interval

Configures the query interval for a VLAN. The query interval is the amount of time between IGMP query messages sent by the switch.

Usage

Supported interface types are: Port-Channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <ip>
            <igmp-phy-intf-cfg xmlns="urn:brocade.com:mgmt:brocade-igmp">
                <igmp>
                    <query-interval>150</query-interval>
                </igmp>
            </igmp-phy-intf-cfg>
        </ip>
    </tengigabitethernet>
</interface>
```

Parameters

name

> Specifies the interface name.

query-interval

> Specifies the response time in seconds. The interval can range from 1 through 18000 seconds. The default value is 125 seconds.

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/igmp/query-max-response-time

Configures the maximum response time for IGMP queries

Usage

Supported interface types are: Port-Channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <ip>
            <igmp-phy-intf-cfg xmlns="urn:brocade.com:mgmt:brocade-igmp">
                <igmp>
                    <query-max-response-time>15</query-max-response-time>
                </igmp>
            </igmp-phy-intf-cfg>
        </ip>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name.

query-max-response-time

Specifies IGMP query max response time in seconds. The response time can range from 1 through 25 seconds. By default, the response time is set to 10 seconds.

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/igmp/robustness-variable

Configures the robustness variable.

Usage

Supported interface types are: Port-Channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface-vlan xmlns="urn:brocade.com:mgmt:brocade-interface">
    <interface>
        <vlan>
            <name>1</name>
            <ip>
                <igmp xmlns="urn:brocade.com:mgmt:brocade-igmp-snooping">
                    <robustness-variable>3</robustness-variable>
                </igmp>
            </ip>
        </vlan>
    </interface>
</interface-vlan>
```

Parameters

name

Specifies the interface name.

robustness-variable

Specifies the robustness value. The value can range from 2 through 10. The default value is 2.

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/igmp/startup-query-count

Configures the start up query count.

Usage

Supported interface types are: Port-Channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface-vlan xmlns="urn:brocade.com:mgmt:brocade-interface">
    <interface>
        <vlan>
            <name>1</name>
            <ip>
                <igmp>
                    <startup-query-count>3</startup-query-count>
                </igmp>
            </ip>
        </vlan>
    </interface>
</interface-vlan>
```

Parameters

name
> Specifies the interface name.

startup-query-count
> Specifies the startup query count value. The value can range from 1 through 10. The default value is 2.

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/igmp/startup-query-interval

Configures the start up query interval.

Usage

Supported interface types are: Port-Channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface-vlan xmlns="urn:brocade.com:mgmt:brocade-interface">
    <interface>
        <vlan>
            <name>1</name>
            <ip>
                <igmp xmlns="urn:brocade.com:mgmt:brocade-igmp-snooping">
                    <startup-query-interval>10</startup-query-interval>
                </igmp>
            </ip>
        </vlan>
    </interface>
</interface-vlan>
```

Parameters

name
> Specifies the interface name.

startup-query-interval
> Specifies the start up query interval value. The value can range from 1 through 450. The default value is 1.

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/pim/dr-priority

Configures the designated router (DR) priority of a protocol Independent Multicast (PIM) enabled interface.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <fortygigabitethernet>
        <name>1/0/50</name>
        <ip>
            <pim-intf-phy-cont xmlns="urn:brocade.com:mgmt:brocade-pim">
                <pim-int-cmd>
                    <pim>
                        <dr-priority>1</dr-priority>
                    </pim>
                </pim-int-cmd>
            </pim-intf-phy-cont>
        </ip>
    </fortygigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

dr-priority

Specifies the DR priority value. The value can range from 0 through 65535. The default value is 1

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/pim/neighbor-filter

By default, directly connected routers under protocol-independent multicast (PIM) form neighborship with one another. Using this command, you can block specified routers from neighborship.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <fortygigabitethernet>
        <name>1/0/50</name>
        <ip>
            <pim-intf-phy-cont xmlns="urn:brocade.com:mgmt:brocade-pim">
                <pim-int-cmd>
                    <pim>
                        <neighbor-filter>prefix1</neighbor-filter>
                    </pim>
                </pim-int-cmd>
            </pim-intf-phy-cont>
        </ip>
    </fortygigabitethernet>
</interface>
```

Parameters

name

> Specifies the interface name.

neighbor-filter

> Specifies the name of a prefix list defined by the ip prefix-list command. Permitted values are between 1 and 63 characters. Although the first character must be alphabetic, the others can be alphanumeric, underscores (_), or minus signs (-).

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/pim-sparse

Enables Protocol Independent Multicast Sparse Mode.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <fortygigabitethernet>
        <name>1/0/50</name>
        <ip>
            <pim-intf-phy-cont xmlns="urn:brocade.com:mgmt:brocade-pim">
                <pim-int-cmd>
                    <pim-sparse></pim-sparse>
                </pim-int-cmd>
            </pim-intf-phy-cont>
        </ip>
    </fortygigabitethernet>
</interface>
```

Parameters

name
Specifies the interface name.

pim-sparse
Enables PIM sparse mode.

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/policy

Enables policy-based routing (PBR) on any Layer 3 interface after ACLs and route map entries are configured.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <fortygigabitethernet>
        <name>1/0/50</name>
        <ip-pbr-interface xmlns="urn:brocade.com:mgmt:brocade-ip-policy">
            <ip>
                <policy>
                    <route-map>
                        <route-map-name>map1</route-map-name>
                    </route-map>
                </policy>
            </ip>
        </ip-pbr-interface>
    </fortygigabitethernet>
</interface>
```

Parameters

name
> Specifies the interface name

route-map-name
> Specifies the name of the route-map

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/proxy-arp

Enables proxy ARP on an interface.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <ip>
            <ip-config xmlns="urn:brocade.com:mgmt:brocade-ip-config">
                <proxy-arp></proxy-arp>
            </ip-config>
        </ip>
    </tengigabitethernet>
</interface>
```

Parameters

name
> Specifies the interface name.

proxy-arp
> Enables proxy ARP.

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ip/router/isis

Configures the Intermediate System-to-Intermediate System (IS-IS) routing at the interface level.

Usage

```
<router xmlns="urn:brocade.com:mgmt:brocade-isis" xmlns:y="http://brocade.com/ns/rest" y:self="/rest/
config/running/interface/Ve/101/ip/router">
<isis>true</isis>
</router>
</interface>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interfacename}/ipv6/router/isis

Configures the IS-IS routing protocol.

Usage

```
<router xmlns="urn:brocade.com:mgmt:brocade-isis" xmlns:y="http://brocade.com/ns/rest" y:self="/rest/
config/running/interface/Ve/101/ipv6/router">
<isis>true</isis>
</router>
</interface>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis

Configures the Intermediate System-to-Intermediate System (IS-IS) routing at the interface level.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">l
    <ethernet>
        <name>{req_val}</name>
        <ip>
            <intf-router-isis xmlns="urn:brocade.com:mgmt:brocade-isis"/>
        </ip>
    </ethernet>
</interface>
```

Parameters

name

      Specifies the interface name.

ip

      Specifies the IP address.

ethernet

      Specifies the physical Ethernet interface.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/link-error-disable

Configures port link dampening (PLD).

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
            <ethernet>
                <name>{req_val}</name>
                <link-error-disable xmlns="urn:brocade.com:mgmt:brocade-pld">
                    <wait-time-in-sec/>
                </link-error-disable>
            </ethernet>
        </interface>
```

Parameters

ethernet
>   Specifies Ethernet interface.

name
>   Specifies the interface name.

link-error-disable-entry
>   Specifies the link error disable entry.

wait-time-in-sec
>   Specifies the wait time.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/link-fault-signaling

Configures, retrieves, and modifies Link Fault Signaling (LFS).

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
        <ethernet>
            <name>{req_val}</name>
            <link-fault-signaling xmlns="urn:brocade.com:mgmt:brocade-lfs">
                <tx/>
            </link-fault-signaling>
        </ethernet>
    </interface>
```

Parameters

ethernet

    Specifies Ethernet interface.

name

    Specifies the interface name.

tx

    Specifies the tx direction.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ipv6/access-group

Applies rules specified in an IPv6 access control list (ACL) to traffic entering or exiting an interface.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <access-group xmlns="urn:brocade.com:mgmt:brocade-ipv6-access-list">
                <ipv6-access-list>acl12</ipv6-access-list>
                <ip-direction>in</ip-direction>
                <traffic-type>routed</traffic-type>
            </access-group>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

ipv6-access-list

Specifies the name of the standard or extended IP access list

ip-direction

Specifies the binding direction

ingress

Ingress direction

egress

Egress direction

traffic-type

Specifies the traffic type

routed

Filter only routed traffic. This parameter is not valid for management or overlaygateway interfaces

switched

Filter only switched traffic. This parameter is not valid for management or overlay-gateway interfaces.

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ipv6/dhcp/relay/address

Configures the IPv6 DHCP Relay on a Layer 3 interface.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <interface-phy-dhcp-conf xmlns="urn:brocade.com:mgmt:brocade-dhcpv6">
                <dhcp>
                    <relay>
                        <servers>
                            <relay-ip-addr>2001:db8::12d:1300</relay-ip-addr>
                            <use-vrf>mgmt-vrf</use-vrf>
                            <interface>
                                <interface-type>tengigabitethernet</interface-type>
                                <interface-name>1/0/2</interface-name>
                            </interface>
                        </servers>
                    </relay>
                </dhcp>
            </interface-phy-dhcp-conf>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

relay-ip-addr

Specifies the IPv6 address of the DHCP server where the DHCP client requests are to be forwarded

use-vrf

Use this option if the VRF where the DHCP server is located is different from the VRF of the interface where the client is connected. Specifies the VRF name

interface-type

The type of interface, such as gigabitEthernet, TengigabitEthernet, FortygigabitEthernet, HundredgigabitEthernet, or Ve interface.

interface-type

The type of interface, such as Ethernet or Ve interface.

interface-name

The interface number

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ipv6/nd/broadcast-mac-trap

Enables the trap for all the IPv6 packets with broadcast mac.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <broadcast-mac-trap></broadcast-mac-trap>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

> Specifies the interface name

broadcast-mac-trap

> Enables the trap for all the IPv6 packets with broadcast mac

interface/{interface-type}/{interface-name}/ipv6/nd/cache

Configures the time interval after which the IPv6 Neighbor Discovery cache is deleted or refreshed.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <cache>
                            <expire>14000</expire>
                        </cache>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

expire

Specifies the time interval in minutes. The interval can range from 1 through 240 minutes. The default value is 240 minutes

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ipv6/nd/dad

Configures the number of IPv6 Neighbor Discovery Neighbor Solicitation (NS) messages to be sent as part of duplicate address detection (DAD).

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <dad>
                            <attempts>3</attempts>
                            <time>2</time>
                        </dad>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

attempts

Specifies the number of solicitations. The value can range from 0 through 10. By default, the value is set to 2.

time

Specifies the time in seconds. The value can range from 1 through 5. The default value is 1

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ipv6/nd/hoplimit

Configures the number of hops to be advertised in IPv6 Neighbor Discovery Router Advertisement (RA) messages.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <hoplimit>65</hoplimit>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

hoplimit

Specifies the number of hops to be advertised. The number can range from 0 through 255. The default value is 64

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ipv6/nd/managed-config-flag

In IPv6 Neighbor Discovery, indicates to hosts on a local link that they must use the stateful autoconfiguration feature to obtain IPv6 addresses for their interfaces.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <managed-config-flag></managed-config-flag>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name
> Specifies the interface name

managed-config-flag
> Indicates to hosts on a local link that they must use the stateful autoconfiguration feature to obtain IPv6 addresses for their interfaces

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ipv6/nd/mtu

Sets the size of the maximum transmission unit (MTU) that is advertised in Neighhbor Discovery Router Advertisement (RA) messages.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <mtu>1550</mtu>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the name of the interface

mtu

Specifies the size, in bytes, of the MTU that is advertised. The value can range from 1280 through 65535. The default value is 1500

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ipv6/nd/ns-interval

Configures the interval for address resolution between IPv6 Neighbor Discovery Neighbor Solicitation (NS) messages.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <ns-interval>2</ns-interval>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

ns-interval

Specifies the number of seconds between neighbor solicitation messages. The value can range from 1 through 5 seconds. The default value is 1 second

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ipv6/nd/other-config-flag

In IPv6 Neighbor Discovery, indicates to hosts on a local link that they can use the stateful autoconfiguration feature to obtain configuration settings other than IPv6 address information for their interfaces.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <other-config-flag></other-config-flag>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

other-config-flag

indicates to hosts on a local link that they can use the stateful autoconfiguration feature to obtain configuration settings other than IPv6 address information for their interfaces

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ipv6/nd/prefix

Configures which IPv6 prefixes are included in IPv6 Neighbor Discovery Router Advertisement (RA) messages.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <prefix>
                            <prefix-ipv6-address>2001:db8:12d:1300::/64</prefix-ipv6-address>
                            <lifetime>
                                <no-advertise></no-advertise>
                            </lifetime>
                        </prefix>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name
> Specifies the interface name

prefix-ipv6-address
> Specifies the IPv6 prefix in hexadecimal with 16-bit values between colons

no-advertise
> Specifies no advertisement.

History

Release version	History
7.0.0	This Netconf call was introduced.

interface/{interface-type}/{interface-name}/ ipv6/nd/ra-interval

Configures the maximum interval range and minimum interval at which IPv6 Neighbor Discovery Router Advertisement (RA) messages are sent.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <ra-interval>
                            <max-interval>650</max-interval>
                            <min>250</min>
                        </ra-interval>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

max-interval

Specifies the maximum interval range in seconds. The interval can range from 4 through 1800 seconds. The default interval is set from 200 through 600, with messages sent randomly within that interval

min

Specifies the minimum interval in seconds. The interval can range from 0 through 1800. The default interval is set to 200 seconds

interface/{interface-type}/{interface-name}/ipv6/nd/ra-lifetime

Configures the amount of time in IPv6 Neighbor Discovery that a router is considered a valid default router.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <ra-lifetime>2000</ra-lifetime>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

ra-lifetime

Specifies the time in seconds. The time can range from 0 through 9000. The defaut value is 1800

interface/{interface-type}/{interface-name}/ipv6/nd/reachable-time

Configures the amount of time in IPv6 Neighbor Discovery that a device considers a remove IPv6 node reachable.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <reachable-time>1</reachable-time>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

    Specifies the interface name

reachable-time

    Specifies the time in milliseconds. The value can range from 0 through 3600000 milliseconds. The defaut time is set to 0

interface/{interface-type}/{interface-name}/ipv6/nd/retrans-timer

Configures the time advertised between IPv6 Neighbor Discovery Neighbor Solicitation (NS) messages.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <retrans-timer>1</retrans-timer>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

retrans-timer

Specifies the interval in milliseconds, at which NS messages are sent. The interval can range from 0 through 4294967295. The default interval is set to 0

interface/{interface-type}/{interface-name}/ipv6/nd/suppress-ra

Disables the sending of ICMPv6 Router Advertisement (RA) messages, including those sent in response to a solicitation as well as MTUs.

Usage

Supported interface types are: Port-channel, Management, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/1</name>
        <ipv6>
            <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                <ipv6-intf-cmds>
                    <nd>
                        <suppress-ra>
                            <suppress-ra-all></suppress-ra-all>
                        </suppress-ra>
                    </nd>
                </ipv6-intf-cmds>
            </ipv6-nd-ra>
        </ipv6>
    </tengigabitethernet>
</interface>
```

Parameters

name

 Specifies the interface name

suppress-ra

 Disables the sending of ICMPv6 Router Advertisement (RA) messages

 all

  Disables the sending of all RA messages, including those sent in response to a solicitation

 mtu

  Disables the sending of MTUs in RA messages

interface/{interface-type}/{interface-name}/ipv6/ra-dns-server

Configures, modifies, or retrieves the Domain Name System (DNS) server address and the lifetime multiplier information to IPv6 hosts in the Router Advertisement (RA) message.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
            <ethernet>
                <name>{req_val}</name>
                <ipv6>
                    <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                        <ipv6-intf-cmds>
                            <nd>
                                <ra-dns-server>
                                    <dns-server-prefix>{req_val}</dns-server-prefix>
                                </ra-dns-server>
                            </nd>
                        </ipv6-intf-cmds>
                    </ipv6-nd-ra>
                </ipv6>
            </ethernet>
        </interface>
```

Parameters

ethernet
> Specifies Ethernet interface.

name
> Specifies the interface name.

ipv6
> Specifies IPv6 address.

nd
> Specifies the neighbor discovery protocol.

dns-server-prefix
> Specifies the prefix of the DNS server.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ra-dns-server/hoplimit

Configures the number of hops to be advertised in IPv6 neighbor discovery router advertisement (RA) messages.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
            <ethernet>
                <name>{req_val}</name>
                <ipv6>
                    <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                        <ipv6-intf-cmds>
                            <nd>
                                    <hoplimit/>
                            </nd>
                        </ipv6-intf-cmds>
                    </ipv6-nd-ra>
                </ipv6>
            </ethernet>
        </interface>
```

Parameters

ethernet

Specifies Ethernet interface.

name

Specifies the interface name.

ipv6

Specifies IPv6 address.

number

Specifies the number of hops to be advertised.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ra-dns-server/mtu

Sets the size of the maximum transmission unit (MTU) that is advertised in Neighbor Discovery Router Advertisement (RA) messages.

Usage

```
<routing-system xmlns="urn:brocade.com:mgmt:brocade-common-def">
             <interface xmlns="urn:brocade.com:mgmt:brocade-interface">
                 <ve>
                     <name>{req_val}</name>
                     <ipv6 xmlns="urn:brocade.com:mgmt:brocade-ipv6-config">
                         <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                             <ipv6-intf-cmds>
                                 <nd>
                                         <mtu/>
                                 </nd>
                             </ipv6-intf-cmds>
                         </ipv6-nd-ra>
                     </ipv6>
                 </ve>
             </interface>
         </routing-system>
```

Parameters

ve

Specifies virtual Ethernet interface.

name

Specifies the interface name.

ipv6

Specifies IPv6 address.

mtu *number*

Specifies the size, in bytes, of the MTU that is advertised.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ra-dns-server/other-config-flag

In IPv6 Neighbor Discovery, indicates to hosts on a local link that they can use the stateful autoconfiguration feature to obtain configuration settings other than IPv6 address information for their interfaces.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
            <ve>
                <name>{req_val}</name>
                <ipv6 xmlns="urn:brocade.com:mgmt:brocade-ipv6-config">
                    <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                        <ipv6-intf-cmds>
                            <nd>
                                <other-config-flag/>
                            </nd>
                        </ipv6-intf-cmds>
                    </ipv6-nd-ra>
                </ipv6>
            </ve>
        </interface>
```

Parameters

ve

Specifies virtual Ethernet interface.

name

Specifies the interface name.

ipv6

Specifies IPv6 address.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ipv6/ra-domain-name

Configures the domain name of the Domain Name System (DNS) suffix and the lifetime multiplier information to IPv6 hosts in the Router Advertisement (RA) message.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
            <ethernet>
                <name>{req_val}</name>
                <ipv6>
                    <ipv6-nd-ra xmlns="urn:brocade.com:mgmt:brocade-ipv6-nd-ra">
                        <ipv6-intf-cmds>
                            <nd>
                                <ra-domain-name>
                                    <domain-name-string>{req_val}</domain-name-string>
                                    <domain-name-lifetime-multiplier/>
                                </ra-domain-name>
                            </nd>
                        </ipv6-intf-cmds>
                    </ipv6-nd-ra>
                </ipv6>
            </ethernet>
        </interface>
```

Parameters

ethernet
> Specifies Ethernet interface.

name
> Specifies the interface name.

ipv6
> Specifies IPv6.

ra-domain-name
> Specifies the RA domain name.

domain-name-string
> Specifies the domain name.

domain-name-lifetime-multiplier
> Specifies domain name option and lifetime multiplier for DNS search list option.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/lldp/dcbx-version

Specifies which version of the Data Center Bridging Exchange (DCBX) protocol to use.

Usage

Supported interface types are: FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
            <dcbx-version>cee</dcbx-version>
        </lldp>
    </tengigabitethernet>
</interface>
```

Parameters

name

      Specifies the interface name

dcbx-version

      Specifies the version

      auto

            Auto-adjusts the DCBX protocol version. This is the default setting

      cee

            Uses the Converged Enhanced Ethernet (CEE) DCBX version.

interface/{interface-type}/{interface-name}/lldp/disable

Disables the Link Layer Discovery Protocol (LLDP) on the interface.

Usage

Supported interface types are: FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
            <disable></disable>
        </lldp>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/5</name>
        <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
            <disable></disable>
        </lldp>
    </ethernet>
</interface>
```

Parameters

name

    Specifies the interface name

disable

    Disables the Link Layer Discovery Protocol (LLDP) on the interface

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/lldp/iscsi-priority

Configures the priority that will be advertised in the DCBX iSCSI TLV for a specified interface.

Usage

Supported interface types are: FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
            <iscsi-priority>3</iscsi-priority>
        </lldp>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

iscsi-priority

Specifies the priority value. The value can range from 0 through 7

interface/{interface-type}/{interface-name}/lldp/profile

Applies a Link Layer Discovery Protocol (LLDP) profile to an interface

Usage

Supported interface types are: FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
            <profile>profile1</profile>
        </lldp>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name

profile

Specifies the profile name

interface/{interface-type}/{interface-name}/isis/reverse-metric

Configures the reverse metric value on a single IS-IS interface.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
            <ethernet>
                <name>{req_val}</name>
                <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
                    <intf-isis>
                        <interface-isis>
                            <interface-reverse-metric/>
                        </interface-isis>
                    </intf-isis>
                </interface-eth-isis-conf>
            </ethernet>
        </interface>
```

Parameters

ethernet

Specifies the physical Ethernet interface.

name

Specifies the interafce name.

intf-isis

Specifies the ISIS interface.

interface-reverse-metric

Specifies interface reverse metric.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/priority

Determines the priority of the interface for being elected as a designated IS.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
            <ethernet>
                <name>{req_val}</name>
                <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
                    <intf-isis>
                        <interface-isis>
                            <interface-priority/>
                        </interface-isis>
                    </intf-isis>
                </interface-eth-isis-conf>
            </ethernet>
        </interface>
```

Parameters

ethernet

Specifies the physical Ethernet interface.

name

Specifies the name of Ethernet interface.

intf-isis

Specifies the ISIS inteface.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/point-to-point

Configures the network type for the IS-IS interface as point-to-point.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
            <intf-isis>
                <interface-isis>
                    <interface-point-to-point/>
                </interface-isis>
            </intf-isis>
        </interface-eth-isis-conf>
    </ethernet>
</interface>
```

Parameters

ethernet

Specifies the physical Ethernet interface.

name

Specifies the ISIS interface name.

intf-isis

Configures the ISIS interface.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/passive

Disables adjacency formation and advertisements on an IS-IS interface.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
            <intf-isis>
                <interface-isis>
                    <interface-passive/>
                </interface-isis>
            </intf-isis>
        </interface-eth-isis-conf>
    </ethernet>
</interface>
```

Parameters

ethernet

Specifies the physical Ethernet interface.

name

Specifies the ISIS interface name.

intf-isis

Configures the ISIS interface.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/ metric

Configures the value of an IS-IS metric.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
            <ethernet>
                <name>{req_val}</name>
                <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
                    <intf-isis>
                        <interface-isis>
                            <interface-metric>
                                <interface-metric-level>{req_val}</interface-metric-level>
                            </interface-metric>
                        </interface-isis>
                    </intf-isis>
                </interface-eth-isis-conf>
            </ethernet>
        </interface>
```

Parameters

ethernet

  Specifies the physical Ethernet interface.

name

  Specifies the ISIS interface name.

intf-isis

  Configures the ISIS interface.

interface-metric>

  Specifies the ISIS interface.

interface-metric-level

  Specifies the metic level for the ISIS interafce.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/ldp-sync

Enables synchronization with IS-IS for an interface.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
            <intf-isis>
                <interface-isis>
                    <interface-ldp-sync/>
                </interface-isis>
            </intf-isis>
        </interface-eth-isis-conf>
    </ethernet>
</interface>
```

Parameters

ethernet

Specifies the physical Ethernet interface.

name

Specifies the ISIS interface name.

intf-isis

Configures the ISIS interface.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/ipv6-metric

Configures the metric value for an interface under IPv6 IS-IS MT.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
            <intf-isis>
                <interface-isis>
                    <interface-ipv6>
                        <interface-ipv6-metric>
                            <interface-ipv6-metric-level>{req_val}</interface-ipv6-metric-level>
                        </interface-ipv6-metric>
                    </interface-ipv6>
                </interface-isis>
            </intf-isis>
        </interface-eth-isis-conf>
    </ethernet>
```

Parameters

ethernet

Specifies the physical Ethernet interface.

name

Specifies the ISIS interface name.

intf-isis

Configures the ISIS interface.

interface-ipv6

Specifeis the IPv6 ISIS interface.

interface-ipv6-metric

Specifeis the IPv6 ISIS interface metric.

interface-ipv6-metric-level

Specifeis the metric level for the ISIS IPv6 interface .

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/ hello-multiplier

Specifies the number of IS-IS hello packets a neighbor must miss before a device declares adjacency as down.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
            <intf-isis>
                <interface-isis>
                    <interface-hello-multiplier>
                        <interface-hello-multiplier-level>{req_val}</interface-hello-multiplier-level>
                    </interface-hello-multiplier>
                </interface-isis>
            </intf-isis>
        </interface-eth-isis-conf>
    </ethernet>
</interface>
```

Parameters

ethernet

> Specifies the physical Ethernet interface.

name

> Specifies the interafce name.

intf-isis

> Specifies the ISIS interface.

interface-hello-multiplier

> Specifies interface hello multiplier.

interface-hello-multiplier-level

> Specifies the hello interval multipler level .

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/hello-interval

Specifies how often an IS-IS interface sends hello messages to its IS-IS neighbors.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
            <intf-isis>
                <interface-isis>
                    <interface-hello-interval>
                        <interface-hello-interval-level>{req_val}</interface-hello-interval-level>
                    </interface-hello-interval>
                </interface-isis>
            </intf-isis>
        </interface-eth-isis-conf>
    </ethernet>
</interface>
```

Parameters

ethernet

Specifies the physical Ethernet interface.

name

Specifies the interafce name.

intf-isis

Specifies the ISIS interface.

interface-hello-interval

Specifies interface hello interval.

interface-hello-interval-level

Specifies the hello interva hello interval level.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/hello-padding

Re-enables IS-IS hello padding at the interface level.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
            <intf-isis>
                <interface-isis>
                    <interface-hello>
                        <interface-hello-padding/>
                    </interface-hello>
                </interface-isis>
            </intf-isis>
        </interface-eth-isis-conf>
    </ethernet>
</interface>
```

Parameters

ethernet
> Specifies the physical Ethernet interface.

name
> Specifies the interafce name.

intf-isis
> Specifies the ISIS interface.

interface-hello
> Specifies inteface hello.

History

Release version	History
16r.1.01	This NETCONF call was introduced.
Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/ circuit-type

Configures the type of adjacency used for an IS-IS interface.

Usage

```
<routing-system xmlns="urn:brocade.com:mgmt:brocade-common-def">
    <interface xmlns="urn:brocade.com:mgmt:brocade-interface">
        <loopback xmlns="urn:brocade.com:mgmt:brocade-intf-loopback">
            <id>{req_val}</id>
            <intf-isis xmlns="urn:brocade.com:mgmt:brocade-isis">
                <interface-isis>
                    <circuit-type/>
                </interface-isis>
            </intf-isis>
        </loopback>
    </interface>
```

Parameters

id

Spcufiers the ID.

interface-isis

Configures the ISIS interface.

circuit-type

Specifies the circuit type.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/auth-mode

Specifies the type of authentication used for an IS-IS interface.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
            <ethernet>
                <name>{req_val}</name>
                <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
                    <intf-isis>
                        <interface-isis>
                            <interface-auth-mode/>
                        </interface-isis>
                    </intf-isis>
                </interface-eth-isis-conf>
            </ethernet>
        </interface>
```

Parameters

ethernet

   Specifies the physical Ethernet interface.

name

   Specifies the interface name.

ainterface-auth-mode

   Specifies the authorization mode.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/auth-key

Configures an authentication key for a specified IS-IS interface.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
            <intf-isis>
                <interface-isis>
                    <interface-auth-key>
                        <interface-auth-key-level>{req_val}</interface-auth-key-level>
                    </interface-auth-key>
                </interface-isis>
            </intf-isis>
        </interface-eth-isis-conf>
    </ethernet>
</interface>
```

Parameters

ethernet

> Specifies the physical Ethernet interface.

name

> Specifies the interface name.

interface-isis

> Specfies the ISIS interafce.

interface-auth-key

> Configures the ISIS interface authorization key.

interface-auth-key-level

> Specfies the authorization key level for the ISIS interface.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis/auth-check

Enables authentication checking for an IS-IS interface.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <interface-eth-isis-conf xmlns="urn:brocade.com:mgmt:brocade-isis">
            <intf-isis>
                <interface-isis>
                    <auth-check/>
                </interface-isis>
            </intf-isis>
        </interface-eth-isis-conf>
    </ethernet>
</interface>
```

Parameters

ethernet

> Specifies the physical Ethernet interface.

name

> Specifies the interface name.

interface-isis

> Specfies the ISIS interafce.

auth-check-level1

> Specfies the authorization check level 1.

interface-auth-check-level1-disable

> Disables the interface authorization check level 1.

auth-check-level2

> Specfies the authorization check level 2.

interface-auth-check-level2-disable

> Disables the interface authorization check level 2.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/link-oam-interface

Configures the Link OAM protocol on an Ethernet interface.

Usage

```
interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <link-oam-interface xmlns="urn:brocade.com:mgmt:brocade-dot3ah">
            <enable/>
        </link-oam-interface>
    </ethernet>
</interface>
```

History

Release version	History
17r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/link-oam/link-fault/action

Sets action for a Link Fault event .

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <link-oam-interface xmlns="urn:brocade.com:mgmt:brocade-dot3ah">
            <remote-failure>
                <link-fault>
                    <link-fault-action/>
                </link-fault>
            </remote-failure>
        </link-oam-interface>
    </ethernet>
</interface>
```

History

Release version	History
17r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/link-oam-interface/allow-loopback

Enables or disables loopback.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>{req_val}</name>
        <link-oam-interface xmlns="urn:brocade.com:mgmt:brocade-dot3ah">
            <allow-loopback/>
        </link-oam-interface>
    </ethernet>
 </interface>
```

History

Release version	History
17r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/rmon/collection/history

Collects Ethernet group statistics for later retrieval

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <rmon xmlns="urn:brocade.com:mgmt:brocade-rmon">
            <collection>
                <history-control-entry>
                    <history-control-index>25</history-control-index>
                    <history-control-buckets-requested>10</history-control-buckets-requested>
                    <history-control-interval>2000</history-control-interval>
                    <history-control-owner>admin</history-control-owner>
                </history-control-entry>
            </collection>
        </rmon>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name.

history-control-index

Specifies the RMON collection control index value. The value can range from 1 through 65535.

history-control-buckets-requested

Specifies the maximum number of buckets for the RMON collection history. The value can range from 1 through 65535.

history-control-interval

Specifies the alarm sample interval in seconds. The value can range from 1 through 3600. The default value is 1800.

history-control-owner

Specifies the identity of the owner. The maximum number of characters is 15.

interface/{interface-type}/{interface-name}/rmon/collection/stats

Collects Ethernet group statistics n a specific interface.

Usage

Supported interface types are: FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <rmon xmlns="urn:brocade.com:mgmt:brocade-rmon">
            <collection>
                <ether-stats-entry>
                    <ether-stats-index>3</ether-stats-index>
                    <ether-stats-owner>owner1</ether-stats-owner>
                </ether-stats-entry>
            </collection>
        </rmon>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/5</name>
        <rmon xmlns="urn:brocade.com:mgmt:brocade-rmon">
            <collection>
                <history-control-entry>
                    <history-control-index>25</history-control-index>
                    <history-control-buckets-requested>10</history-control-buckets-requested>
                    <history-control-interval>2000</history-control-interval>
                    <history-control-owner>admin</history-control-owner>
                </history-control-entry>
            </collection>
        </rmon>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

ether-stats-index

Specifies the RMON collection control index value. The value can range from 1 through 65535

ether-stats-owner

Specifies the identity of the owner

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/sflow/ enable

Enables sFlow on an interface.

Usage

Supported interface types are: FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <sflow xmlns="urn:brocade.com:mgmt:brocade-sflow">
            <enable></enable>
        </sflow>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name.

enable

Enables sFlow on the interface.

interface/{interface-type}/{interface-name}/sflow/ polling-interval

Configures the polling interval globally.

Usage

Supported interface types are: FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <sflow xmlns="urn:brocade.com:mgmt:brocade-sflow">
            <polling-interval>25</polling-interval>
        </sflow>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name.

polling-interval

Specifies the polling interval in seconds. The value can range from 1 through 65535 seconds.

interface/{interface-type}/{interface-name}/sflow/sample-rate

Sets the default sampling rate for an interface.

Usage

Supported interface types are: FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <sflow xmlns="urn:brocade.com:mgmt:brocade-sflow">
            <sample-rate>33300</sample-rate>
        </sflow>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/5</name>
        <sflow xmlns="urn:brocade.com:mgmt:brocade-sflow">
            <sample-rate>33300</sample-rate>
        </sflow>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

sample-rate

Specifies the sampling rate. The value can range from 2 through 16777215 packets

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/spanning-tree/autoedge

Enables automatic edge detection.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <autoedge></autoedge>
        </spanning-tree>
    </tengigabitethernet>
</interface>
```

Parameters

name
> Specifies the interface name.

autoedge
> Enables automatic edge detection.

interface/{interface-type}/{interface-name}/spanning-tree/bpdu-mac

Sets the MAC address of the Bridge Protocol Data Unit (BPDU).

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <bpdu-mac>0304.0800.0700</bpdu-mac>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <bpdu-mac>0304.0800.0700</bpdu-mac>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

bpdu-mac

Specifies the MAC address of the Bridge Protocol Data Unit

0100.0ccc.cccd

Cisco Control Mac

0304.0800.0700

Brocade Control Mac

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/spanning-tree/cost

Changes an interface's spanning-tree port path cost.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <cost>10000</cost>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <cost>10000</cost>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name.

cost

Specifies the path cost for the Spanning Tree Protocol (STP) calculations. The value can range from 1 through 200000000.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

History

Release version	History
17s.1.00	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/spanning-tree/edgeport

Enables the edge port on an interface to allow the interface to quickly transition to the forwarding state.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <edgeport>
                <edgeportbasic></edgeportbasic>
            </edgeport>
        </spanning-tree>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name.

edgeportbasic

Enables the edge port on an interface.

interface/{interface-type}/{interface-name}/ spanning-tree/edgeport/bpdu-filter

Sets the edge port Bridge Protocol Data Unit (BPDU) filter for the port.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <edgeport>
                <bpdu-filter></bpdu-filter>
            </edgeport>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <edgeport>
                <bpdu-filter></bpdu-filter>
            </edgeport>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

bpdu-filter

Sets the edge port Bridge Protocol Data Unit (BPDU) filter for the port

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ spanning-tree/edgeport/bpdu-guard

Guards the port against the reception of BPDUs.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <edgeport>
                <bpdu-guard></bpdu-guard>
            </edgeport>
        </spanning-tree>
    </tengigabitethernet>
</interface>
```

Parameters

name

Specifies the interface name.

bpdu-guard

Guards the port against the reception of BPDUs.

interface/{interface-type}/{interface-name}/spanning-tree/guard/root

Enables the guard root to restrict which interface is allowed to be the spanning-tree root port or the path-to-the-root for the switch.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <guard>
                <root></root>
            </guard>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <guard>
                <root></root>
            </guard>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

　　　Specifies the interface name

root

　　　Enables the guard root

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/spanning-tree/hello-time

Configures the hello-time in seconds on the interface.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <hello-time>5</hello-time>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <hello-time>5</hello-time>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

    Specifies the interface name

hello-time

    Sets the interval between the hello Bridge Protocol Data Units (BPDUs) sent by the root switch configuration messages. The value can range from 1 through 10.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ spanning-tree/instance/priority

Sets restrictions for the port of particular MSTP instances.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <instance>
                <id>5</id>
                <priority>240</priority>
            </instance>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <instance>
                <id>5</id>
                <priority>240</priority>
            </instance>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

id

Specifies the MSTP instance. The value can range from 1 through 32

priority

Specifies the port priority for a bridge in increments of 16. The value can range from 0 through 240

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ spanning-tree/instance/cost

Configures the path-cost for a port.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <instance>
                <id>5</id>
                <cost>60</cost>
            </instance>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <instance>
                <id>5</id>
                <cost>60</cost>
            </instance>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

id

Specifies the MSTP instance. The value can range from 1 through 32

cost

Specifies the path-cost for a port. The value can range from 1 through 20000000

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ spanning-tree/instance/restricted-role

Specifies to restrict the role of a port.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <instance>
                <id>5</id>
                <restricted-role></restricted-role>
            </instance>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <instance>
                <id>5</id>
                <restricted-role></restricted-role>
            </instance>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

id

Specifies the MSTP instance. The value can range from 1 through 32

restricted-role

Specifies to restrict the role of a port

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ spanning-tree/instance/restricted-tcn

Specifies to restrict the propagation of the topology change notifications from a port.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <instance>
                <id>5</id>
                <restricted-tcn></restricted-tcn>
            </instance>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <instance>
                <id>5</id>
                <restricted-tcn></restricted-tcn>
            </instance>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

id

Specifies the MSTP instance. The value can range from 1 through 32

restricted-tcn

Specifies to restrict the propagation of the topology change notifications from a port

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ spanning-tree/link-type

Enables and disables the rapid transition for the Spanning Tree Protocol (STP).

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <link-type>shared</link-type>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <link-type>shared</link-type>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

link-type

Enables and disables the rapid transition

point-to-point

Enables rapid transition

shared

Disables rapid transition

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ spanning-tree/peer-switch

When the Peer-Switch feature is enabled on a Cisco vPC domain, it broadcasts the same BPDUs from both vPC primary and secondary nodes to peer devices. But a VCS on a VLAG assumes that any logical interface receives only one BPDU from any of its member ports, so when it receives the two BPDUs from a Cisco vPC domain it creates a churn of VLAG mastership, and this increases the CPU load on a Brocade VDX. To avoid these problem, BDPUs received on the VLAG non-master are dropped. When the Peer-Switch functionality is enabled and the the VLAG Master is selected, BPDUs received on VLAG Non-Master are dropped unless there is a change in the status of the VLAG Master.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <peer-switch></peer-switch>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <peer-switch></peer-switch>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name
>   Specifies the interface name

peer-switch
>   Enables the Peer-Switch functionality on a portchannel

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/spanning-tree/portfast

Enables the Port Fast feature on an interface to allow the interface to quickly transition to forwarding state.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <portfast>
                <portfastbasic></portfastbasic>
            </portfast>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <portfast>
                <portfastbasic></portfastbasic>
            </portfast>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ spanning-tree/portfast/bpdu-filter

Sets the Port Fast BPDU filter for the port.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <portfast>
                <bpdu-filter></bpdu-filter>
            </portfast>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <portfast>
                <bpdu-filter></bpdu-filter>
            </portfast>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name
> Specifies the interface name

bpdu-filter
> Sets the Port Fast BPDU filter for the port

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/spanning-tree/portfast/bpdu-guard

Guards the port against the reception of BPDUs.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <portfast>
                <bpdu-guard></bpdu-guard>
            </portfast>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>22/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <portfast>
                <bpdu-guard></bpdu-guard>
            </portfast>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

bpdu-guard

Guards the port against the reception of BPDUs

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/spanning-tree/priority

Changes an interface's spanning-tree port priority.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <priority>32</priority>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <priority>32</priority>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

priority

Specifies the interface priority for the spanning tree. The value can range from 0 through 240. Port priority is in increments of 16

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ spanning-tree/restricted-role

Restricts the role of the port from becoming a root port.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <restricted-role></restricted-role>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <restricted-role></restricted-role>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

restricted-role

Restricts the role of the port from becoming a root port

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/spanning-tree/restricted-tcn

Restricts the Topology Change Notification (TCN) Bridge Protocol Data Units (BPDUs) sent on the port.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <restricted-tcn></restricted-tcn>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <restricted-tcn></restricted-tcn>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

restricted-tcn

Restricts the Topology Change Notification

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/spanning-tree/shutdown

Disables spanning tree on the interface.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <shutdown></shutdown>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <shutdown></shutdown>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

shutdown

Disables spanning tree on the interface

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/spanning-tree/vlan

Configures the VLAN identifier for the spanning tree interface.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <vlan>
                <id>200</id>
                <cost>10000</cost>
            </vlan>
        </spanning-tree>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
            <vlan>
                <id>200</id>
                <cost>10000</cost>
            </vlan>
        </spanning-tree>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

id

Specifies the VLAN identifier for the spanning tree interface

cost

Specifies cost.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/storm-control/ingress

Limits ingress traffic on a specified interface.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet, TenGigabitEthernet and VLAN.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/5</name>
        <storm-control xmlns="urn:brocade.com:mgmt:brocade-bum-storm-control">
            <ingress>
                <protocol-type>broadcast</protocol-type>
                <rate-format>limit-bps</rate-format>
                <rate-bps>100</rate-bps>
                <rate-percent>458632240</rate-percent>
                <bum-action>monitor</bum-action>
            </ingress>
        </storm-control>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/5</name>
        <storm-control xmlns="urn:brocade.com:mgmt:brocade-bum-storm-control">
            <ingress>
                <protocol-type>broadcast</protocol-type>
                <rate-format>limit-bps</rate-format>
                <rate-bps>100</rate-bps>
                <rate-percent>458632240</rate-percent>
                <bum-action>monitor</bum-action>
            </ingress>
        </storm-control>
    </ethernet>
</interface>
```

Parameters

name

    Specifies the interface name

protocol-type

    Specifies the protocol type

    broadcast

        Specifies that the command will operate on broadcast traffic only

    unknown-unicast

        Specifies that the command will operate on unknown-unicast traffic only

    multicast

        Specifies that the command will operate on multicast traffic only

rate-format

    Specfies the rate format

limit-bps

    Specifies that the value given to the rate parameter is in bits per second

limit-percent

    Specifies that the value given to the rate parameter is in percentage of capacity of the interface

rate-bps

Specifies the amount of traffic allowed, either in bits per second or a percentage of the capacity of the interface, depending on which parameter was chosen with the rate

monitor

Specifies that, if a rate limit is reached within a five-second sampling period, a log message gets sent

shutdown

Specifies that, if a rate limit is exceeded within a five-second sampling period, the interface will be shut down

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/switchport

Puts the interface in Layer 2 mode and sets the switching characteristics of the Layer 2 interface.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <switchport></switchport>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2//1</name>
        <switchport></switchport>
    </ethernet>
</interface>
```

Parameters

name
> Specifies the interface name

switchport
> Enables switching characteristics of the Layer 2 interface

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/switchport/access

Sets the Layer 2 interface as access.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>22/0/1</name>
        <switchport>
            <access>
                <accessvlan>20</accessvlan>
            </access>
        </switchport>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>2/1</name>
        <switchport>
            <access>
                <accessvlan>20</accessvlan>
            </access>
        </switchport>
    </ethernet>
</interface>
```

Parameters

name
> Specifies the interface name

accessvlan
> Specifies the VLAN ID

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/switchport/mode

Sets the mode of the Layer 2 interface.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/2</name>
        <switchport>
            <mode>
                <vlan-mode>trunk-no-default-native</vlan-mode>
            </mode>
        </switchport>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/0/2</name>
        <switchport>
            <port-security>
                <oui>1122.2233.3322</oui>
            </port-security>
        </switchport>
    </ethernet>
</interface>
```

Parameters

name

 Specifies the interface name

vlan-mode

 Sets the mode

 access

  Sets the Layer 2 interface as access. Access mode assigns the port to a VLAN

 trunk

  Sets the Layer 2 interface as trunk. Trunk mode makes the port linkable to other switches and routers

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/switchport/mode/private-vlan

Sets the private VLAN (PVLAN) mode of the Layer 2 interface.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/2</name>
        <switchport>
            <mode>
                <pvlan>trunk</pvlan>
            </mode>
        </switchport>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/2</name>
        <switchport>
            <mode>
                <pvlan>trunk</pvlan>
            </mode>
        </switchport>
    </ethernet>
</interface>
```

Parameters

name

> Specifies the interface name

pvlan

> Sets the private VLAN mode

> **host**
>
> > Sets the port mode to host (community or isolated) mode. It accepts the untagged or priority tagged packet, and the outgoing packet is untagged

> **promiscuous**
>
> > Sets the port mode to promiscuous mode

> **trunk**
>
> > Sets the port mode to PVLAN trunk port. This port can carry multiple VLANs. The outgoing packets carry all VLANs, except for native VLANs

> **trunk host**
>
> > Sets the port mode to host (community or isolated) mode. The trunk operand means the outgoing packet will be tagged "accept"

> **trunk promiscuous**
>
> > Sets the trunk to promiscuous mode

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ switchport/mode/trunk-no-default-native

Configures a port to trunk mode without the implicit creation of default native VLAN 1 in a Virtual Fabrics context.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/2</name>
        <switchport>
            <mode>
                <trunk-no-default-native></trunk-no-default-native>
            </mode>
        </switchport>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/2</name>
        <switchport>
            <mode>
                <trunk-no-default-native></trunk-no-default-native>
            </mode>
        </switchport>
    </ethernet>
</interface>
```

Parameters

name
> Specifies the interface name

trunk-no-default-native
> Enables a port to trunk mode

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ switchport/port-security

Enables port security on an interface port.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/2</name>
        <switchport>
            <port-security></port-security>
        </switchport>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/2</name>
        <switchport>
            <port-security></port-security>
        </switchport>
    </ethernet>
</interface>
```

Parameters

name
> Specifies the interface name

port-security
> Enables port security

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ switchport/port-security/mac-address

Configures the MAC address option for port security on an interface port.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/2</name>
        <switchport>
            <port-security>
                <port-secutiry-mac-address>
                    <mac-address>1122.2233.3322</mac-address>
                    <port-sec-vlan>1</port-sec-vlan>
                </port-secutiry-mac-address>
            </port-security>
        </switchport>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/2</name>
        <switchport>
            <port-security>
                <port-secutiry-mac-address>
                    <mac-address>1122.2233.3322</mac-address>
                    <port-sec-vlan>1</port-sec-vlan>
                </port-secutiry-mac-address>
            </port-security>
        </switchport>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

mac-address

Specifies the MAC address-based VLAN classifier rule used to map to a specific VLAN

port-sec-vlan

Specifies a VLAN

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/switchport/port-security/max

Configures the maximum number of MAC addresses used for port security on an interface port.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/2</name>
        <switchport>
            <port-security>
                <port-sec-max>12</port-sec-max>
            </port-security>
        </switchport>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/2</name>
        <switchport>
            <port-security>
                <port-sec-max>12</port-sec-max>
            </port-security>
        </switchport>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

port-sec-max

Specifies the maximum number of secure MAC addresses. The value can range is from 1 through 8192

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/switchport/port-security/oui

Configures an Organizationally Unique Identifier (OUI) MAC address for port security on an interface port. All other addresses are ignored.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/2</name>
        <switchport>
            <port-security>
                <oui>1122.2233.3322</oui>
            </port-security>
        </switchport>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/2</name>
        <switchport>
            <port-security>
                <oui>1122.2233.3322</oui>
            </port-security>
        </switchport>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

oui

Specifies the OUI MAC address from which to accept vendor traffic, in the format xxxx.xxxx.xxxx

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/ switchport/port-security/shutdown-time

Configures the shutdown-time option for port security on an interface port.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/2</name>
        <switchport>
            <port-security>
                <shutdown-time>15</shutdown-time>
            </port-security>
        </switchport>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/2</name>
        <switchport>
            <port-security>
                <shutdown-time>15</shutdown-time>
            </port-security>
        </switchport>
    </ethernet>
</interface>
```

Parameters

name
> Specifies the interface name

shutdown-time
> Specifies the amount of time to shut down the interface port, in minutes. The value can range from 1 through 15

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/switchport/port-security/sticky

Converts dynamic MAC addresses to sticky secure MAC addresses.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/2</name>
        <switchport>
            <port-security>
                <sticky>
                    <sticky-flag></sticky-flag>
                    <port-secutiry-mac-address>
                        <mac-address>1122.2255.5544</mac-address>
                        <port-sec-vlan>100</port-sec-vlan>
                    </port-secutiry-mac-address>
                </sticky>
            </port-security>
        </switchport>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/0/2</name>
        <switchport>
            <port-security>
                <sticky>
                    <sticky-flag></sticky-flag>
                    <port-secutiry-mac-address>
                        <mac-address>1122.2255.5544</mac-address>
                        <port-sec-vlan>100</port-sec-vlan>
                    </port-secutiry-mac-address>
                </sticky>
            </port-security>
        </switchport>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

mac-address

Specifies the MAC address-based VLAN classifier rule used to map to a specific VLAN

port-sec-vlan

Specifies a VLAN ID

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/switchport/port-security/violation

Configures the violation response options for port security on an interface.

Usage

Supported interface types are: Port-channel, FortyGigabitEthernet, GigabitEthernet, HundredGigabitEthernet and TenGigabitEthernet.

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <tengigabitethernet>
        <name>1/0/2</name>
        <switchport>
            <port-security>
                <port-sec-violation>restrict</port-sec-violation>
            </port-security>
        </switchport>
    </tengigabitethernet>
</interface>

<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
    <ethernet>
        <name>1/2</name>
        <switchport>
            <port-security>
                <port-sec-violation>restrict</port-sec-violation>
            </port-security>
        </switchport>
    </ethernet>
</interface>
```

Parameters

name

Specifies the interface name

port-sec-violation

Specifies the violation response

restrict

Drops packets with unknown source addresses until you remove a sufficient number of secure MAC addresses to drop below the maximum value

shutdown

Puts the interface into the error-disabled state for a predetermined amount of time

History

Release version	History
16r.1.01	This NETCONF call was introduced.

ip/access-list/extended

Configures extended IP access list.

Usage

```
<ip-acl xmlns="urn:brocade.com:mgmt:brocade-ip-access-list">
    <ip>
        <access-list>
            <extended>
                <name>acl5</name>
            </extended>
        </access-list>
    </ip>
</ip-acl>
```

Parameters

name

Specifies the access list name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

ip/access-list/extended/{acl-name}/seq

Configures the sequence number.

Usage

```
<ip-acl xmlns="urn:brocade.com:mgmt:brocade-ip-access-list">
    <ip>
        <access-list>
            <extended>
                <name>acl5</name>
                <hide-ip-acl-ext>
                    <seq>
                        <seq-id>14</seq-id>
                        <action>deny</action>
                        <protocol-type>ip</protocol-type>
                        <src-host-any-sip>any</src-host-any-sip>
                        <dst-host-any-dip>host</dst-host-any-dip>
                        <dst-host-ip>1.1.1.1</dst-host-ip>
                        <vlan>1</vlan>
                        <count></count>
                        <log></log>
                    </seq>
                </hide-ip-acl-ext>
            </extended>
        </access-list>
    </ip>
</ip-acl>
```

Parameters

name

    Access list name

seq-id

    Specifies the sequence number for the rule

action

    Specifies the action to be performed. The following actions can be performed.

    deny

        Drops traffic.

    hard-drop

        Forces to drop traffic.

    permit

        Allows traffic.

protocol-type

    The type of protocol used.

src-host-any-sip

    Specifies any source host IP address.

dst-host-any-dip

    Specifies any destination host IP address.

dst-host-ip

    Specifies the destination host IP address.

vlan

> VLAN interface numbe.

count

> Enables the counting of the packets matching the rule.

log

> Packets matching the filter are sent to the CPU and a corresponding log entry is generated by enabling the logging mechanism. This parameter is only available with permit and deny.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

ip/access-list/standard

Configures a standard IP access list.

Usage

```
<ip-acl xmlns="urn:brocade.com:mgmt:brocade-ip-access-list">
    <ip>
        <access-list>
            <standard>
                <name>acl20</name>
            </standard>
        </access-list>
    </ip>
</ip-acl>
```

Parameters

name

    Specifies the access list name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

ip/access-list/standard

Configures IPv6 standard access list.

Usage

```
<ipv6-acl xmlns="urn:brocade.com:mgmt:brocade-ipv6-access-list">
    <ipv6>
        <access-list>
            <standard>
                <name>acl24</name>
            </standard>
        </access-list>
    </ipv6>
</ipv6-acl>
```

Parameters

name
>	Specifies the access list name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

ip/access-list/standard/{acl-name}/seq

Configures sequence number.

Usage

```
<ip-acl xmlns="urn:brocade.com:mgmt:brocade-ip-access-list">
    <ip>
        <access-list>
            <standard>
                <name>acl20</name>
                <hide-ip-acl-std>
                    <seq>
                        <seq-id>20</seq-id>
                        <action>permit</action>
                        <src-host-any-sip>host</src-host-any-sip>
                        <src-host-ip>1.1.1.1</src-host-ip>
                        <count></count>
                        <log></log>
                    </seq>
                </hide-ip-acl-std>
            </standard>
        </access-list>
    </ip>
</ip-acl>
```

Parameters

name

Accesses the list name.

seq-id

Specifies the sequence number for the rule.

action

Specifies the action to be performed. The following actions can be performed.

deny

Drops traffic.

hard-drop

Forces to drop traffic.

permit

Allows traffic.

src-host-any-sip

Specifies any source host IP address.

src-host-ip

Specifies the source host IP address.

count

Enables the counting of the packets matching the rule.

log

Packets matching the filter are sent to the CPU and a corresponding log entry is generated by enabling the logging mechanism. This parameter is only available with permit and deny.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

ip/dhcp/relay/servers

Configures DHCP relay servers.

Usage

```
<ip xmlns="urn:brocade.com:mgmt:brocade-ip-config">
    <interface-ve-dhcp-conf xmlns="urn:brocade.com:mgmt:brocade-dhcp">
        <dhcp>
            <relay>
                <servers>
                    <relay-ip-addr>{req_val}</relay-ip-addr>
                    <server-vrf-name>{req_val}</server-vrf-name>
                </servers>
            </relay>
        </dhcp>
    </interface-ve-dhcp-conf>
</ip>
```

Parameters

relay-ip-addr

    Specifies the IP address of the relay server.

server-vrf-name

    Specifies the VRF name of the server.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

ipv6/access-list/extended

Configure IPv6 extended access list.

Usage

```
<ipv6-acl xmlns="urn:brocade.com:mgmt:brocade-ipv6-access-list">
    <ipv6>
        <access-list>
            <extended>
                <name>acl14</name>
            </extended>
        </access-list>
    </ipv6>
</ipv6-acl>
```

Parameters

name

Specifies the list name.

ipv6/access-list/extended/{acl-name}/seq

Configures the sequence number.

Usage

```
<ipv6-acl xmlns="urn:brocade.com:mgmt:brocade-ipv6-access-list">
    <ipv6>
        <access-list>
            <extended>
                <name>acl14</name>
                <seq>
                    <seq-id>14</seq-id>
                    <action>deny</action>
                    <protocol-type>ipv6</protocol-type>
                    <src-host-any-sip>any</src-host-any-sip>
                    <dst-host-any-dip>host</dst-host-any-dip>
                    <dst-host-ip>2004:384d::24:23</dst-host-ip>
                    <vlan>1</vlan>
                    <count></count>
                    <log></log>
                </seq>
            </extended>
        </access-list>
    </ipv6>
</ipv6-acl>
```

Parameters

name

> Specifies the access list name.

seq-id

> Specifies the sequence number for the rule.

action

> Specifies the action to be performed. The following actions can be performed.

> **deny**
>> Drops traffic.

> **hard-drop**
>> Forces to drop traffic.

> **permit**
>> Allows traffic.

protocol-type

> Specifies the type of protocol used.

src-host-any-sip

> Specifies any source host IP address.

dst-host-any-dip

> Specifies any destination host IP address.

dst-host-ip

> Specifies the destination host IP address.

vlan
> VLAN interface number

count
> Enables the counting of the packets matching the rule.

log
> Packets matching the filter are sent to the CPU and a corresponding log entry is generated by enabling the logging mechanism. This parameter is only available with permit and deny.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

ipv6/access-list/standard/{acl-name}/seq

Configures the sequence number.

Usage

```
<ipv6-acl xmlns="urn:brocade.com:mgmt:brocade-ipv6-access-list">
    <ipv6>
        <access-list>
            <standard>
                <name>acl24</name>
                <seq>
                    <seq-id>24</seq-id>
                    <action>permit</action>
                    <src-host-any-sip>any</src-host-any-sip>
                    <count></count>
                    <log></log>
                </seq>
            </standard>
        </access-list>
    </ipv6>
</ipv6-acl>
```

Parameters

name

Specifies the access list name.

seq-id

Specifies the sequence number for the rule.

action

Specifies the action to be performed. The following actions can be performed.

deny

Drops traffic.

hard-drop

Forces to drop traffic.

permit

Allows traffic.

src-host-any-sip

Specifies any source host IP address.

count

Enables the counting of the packets matching the rule.

log

Packets matching the filter are sent to the CPU and a corresponding log entry is generated by enabling the logging mechanism. This parameter is only available with permit and deny.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

mac/access-list/extended/{acl-name}/seq

Configures the sequence number

Usage

```
<mac xmlns="urn:brocade.com:mgmt:brocade-mac-access-list">
    <access-list>
        <extended>
            <name>acl21</name>
            <hide-mac-acl-ext>
                <seq>
                    <seq-id>25</seq-id>
                    <action>hard-drop</action>
                    <source>0011.1122.2233</source>
                    <src-mac-addr-mask>1212.2323.3131</src-mac-addr-mask>
                    <dst>any</dst>
                    <ethertype>arp</ethertype>
                    <vlan>1</vlan>
                    <count></count>
                    <log></log>
                </seq>
            </hide-mac-acl-ext>
        </extended>
    </access-list>
</mac>
```

Parameters

name

Specifies the access list name.

seq-id

Specifies the sequence ID.

action

Displays all rules with the specified action. The following actions are allowed.

deny

Drops traffic.

hard-drop

Forces to drop traffic.

permit

Allows traffic.

source

Specifies the source details.

src-mac-addr-mask

Specifies the source MAC address mask.

dst

Specifies details on the destination

ethertype

Filters extended ACLs traffic based on ethertype.

vlan

        Specifies the VLAN number.

count

        Displays the count of forwarding entries.

log

        Specifies log.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

mac/access-list/standard

Configures standard MAC access-list.

Usage

```
<mac xmlns="urn:brocade.com:mgmt:brocade-mac-access-list">
    <access-list>
        <standard>
            <name>acl25</name>
        </standard>
    </access-list>
</mac>
```

Parameters

name
> Specifies the access list name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

mac/access-list/standard/{acl-name}/seq

Configures the sequence number.

Usage

```
<mac xmlns="urn:brocade.com:mgmt:brocade-mac-access-list">
    <access-list>
        <standard>
            <name>acl25</name>
            <hide-mac-acl-std>
                <seq>
                    <seq-id>21</seq-id>
                    <action>permit</action>
                    <source>0011.1122.2233</source>
                    <src-mac-addr-mask>0101.0202.0303</src-mac-addr-mask>
                    <count></count>
                    <log></log>
                </seq>
            </hide-mac-acl-std>
        </standard>
    </access-list>
</mac>
```

Parameters

name

Specifies the access list name.

seq-id

Specifies the sequence ID.

action

Displays all rules with the specified action. The following actions are allowed.

deny

Drops traffic.

hard-drop

Forces to drop traffic.

permit

Allows traffic.

source

Specifies the source details.

src-mac-addr-mask

Specifies the source MAC address mask.

count

Displays the count of forwarding entries.

log

Spcies log.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

mac-address-table/aging-time

Configures mac-address-table aging time.

Usage

```
<mac-address-table xmlns="urn:brocade.com:mgmt:brocade-mac-address-table">
    <aging-time>
        <legacy-time-out>350</legacy-time-out>
    </aging-time>
</mac-address-table>
```

Parameters

legacy-time-out
>   Specifies the aging time in seconds. The value can range from 60 through 100000 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

ntp/authentication-key

Configures NTP authentication key parameters.

Usage

```
<ntp xmlns="urn:brocade.com:mgmt:brocade-ntp">
    <authentication-key>
        <keyid>650</keyid>
        <sha1>sha1</sha1>
        <encryption-level>0</encryption-level>
    </authentication-key>
</ntp>
```

Parameters

keyid

> Specifies authentication key ID. The value can range from 65535

encryption-type

> Specifies the encryption type. Two types of encryption are allowed:

> **sha1**
>
> > SHA1 encryption

> **md5**
>
> > MD5 encrytion

encryption-level

> Specifies the encrytion level. There are two encryption levels

> **0**
>
> > Stores the key in clear-text format

History

Release version	History
16r.1.01	This NETCONF call was introduced.

ntp/disable

Disables the NTP server/client mode.

Usage

```
<ntp xmlns="urn:brocade.com:mgmt:brocade-ntp">
            <disable/>
        </ntp>>
```

Parameters

serve

If this keyword is specified, then NTP will not serve the time to downstream devices. This keyword disables the NTP server mode functionalities.If this keyword is not specified, then both NTP client mode and NTP server mode functionalities will be disabled.

History

Release version	History
17r.2.00	This NETCONF call was introduced.

ntp/master

Configures the device as an authoritative NTP Server.

Usage

```
<ntp xmlns="urn:brocade.com:mgmt:brocade-ntp">
            <master/>
        </ntp>
```

Parameters

startum*number*
> The NTP stratum number.

History

Release version	History
17r.2.00	This NETCONF call was introduced.

ntp/peer

Configures the NTP peers and specify the peers to synchronize the system clock.

Usage

```
<ntp xmlns="urn:brocade.com:mgmt:brocade-ntp">
            <peer>
                <peer-ip>%req_val%</peer-ip>
                <peer-maxpoll/>
            </peer>
```

Parameters

ipv4 address | ipv6 address
> IPv4 or IPv6 address of the NTP peer.

use-vrf name
> Use VRF name to synchronize the time with server. If this option is not specified, it defaults to **mgmt-vrf**.

key
> The symmetric key ID. By default, no symmetric key is configured. The range is 1 to 65,534.

version*3 | 4*
> The NTP version supported by peer. If this option is not specified, then defaults to 4.

minpoll*interval*
> The shortest polling interval. The range is 4 to 17. Default is 6. The interval argument is power of 2: 3=8s, 4=16s, 5=32s, 6=64s, 7=128s, 8=256s, 9=512s etc.

maxpoll*interval*
> The longest polling interval. The range is 4 to 17. Default is 10. The interval argument is power of 2: 3=8s, 4=16s, 5=32s, 6=64s, 7=128s, 8=256s, 9=512s etc.

History

Release version	History
17r.2.00	This NETCONF call was introduced.

ntp/server

Configures Network Time Protocol (NTP) server IP address.

Usage

```
<ntp xmlns="urn:brocade.com:mgmt:brocade-ntp">
    <server>
        <ip>1.1.1.1</ip>
        <key>1</key>
    </server>
</ntp>
```

Parameters

ip

NTP server IPv4 or IPv6 IP address.

key

Key from the key list to be associated with the specified server. The value can range from 1 through 65535.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

ntp/source-ip

Configures the source IP to be used for Network Time Protocol (NTP).

Usage

```
<ntp xmlns="urn:brocade.com:mgmt:brocade-ntp">
    <source-ip>chassis-ip</source-ip>
</ntp>
```

Parameters

source-ip

Specifies the source IP to be used for NTP. The following source IP can be configured.

chassis-ip

Uses chassis IP as source address.

mm-ip

Uses local MM IP as source address.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

ntp/trusted-key

configures additional subset of trusted key-IDs which can be used for NTP and client authentication.

Usage

```
<ntp xmlns="urn:brocade.com:mgmt:brocade-ntp">
            <trusted-key/>
        </ntp>
```

Parameters

key-id-1key-id-2key-id-n

        List of authentication keys.

History

Release version	History
17r.2.00	This NETCONF call was introduced.

overlay-gateway

Configures overlay gateway instances.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
</overlay-gateway>
```

Parameters

name

> Overlay Gateway name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/activate

Activates the Overlay Gateway instance.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
    <activate></activate>
</overlay-gateway>
```

Parameters

name

> Specifies the Overlay Gateway name.

activate

> Activates the overlay gateway instance.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/attach/vlan

Configures VLAN attachment for this gateway.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
    <attach>
        <vlan>
            <vid>1</vid>
            <mac>0011.1122.2233</mac>
        </vlan>
    </attach>
</overlay-gateway>
```

Parameters

vid

  Specifies the range of VLAN ids to add.

mac

  Specifies MAC address in HHHH.HHHH.HHHH format.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/enable

Enables per VLAN statistics.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
    <enable>
        <statistics>
            <stats-direction>both</stats-direction>
            <vlan-action>add</vlan-action>
            <vlan-list>1</vlan-list>
        </statistics>
    </enable>
</overlay-gateway>
```

Parameters

stats-direction

Specifies the flow direction. The flow direction can be set to any one of the following.

both

Both transmitted and received packets.

rx

Received pacvkets.

tx

Transmitted packets.

vlan-action

Specifies the actrion. Two actions are allowed.

add

Specifes the VLANs to add.

remove

Specifies the VLANs to remove.

vlan-list

Specifies the range of VLAN IDs.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/ip/access-group

Configures IPv4 access-group for the Overlay Gateway.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
    <access-lists>
        <ipv4>
            <in>
                <ipv4-acl-in-name>acl4</ipv4-acl-in-name>
                <ipv4-acl-in-dir></ipv4-acl-in-dir>
            </in>
        </ipv4>
    </access-lists>
</overlay-gateway>
```

Parameters

ipv4-acl-in-name

>Specifies the access list name.

ipv4-acl-in-dir

>Configures IPv4 access group in ingress direction.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/ip/interface/loopback

Configures Loopback interface for the Overlay Gateway

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
    <ip>
        <interface>
            <loopback>
                <loopback-id>1</loopback-id>
            </loopback>
        </interface>
    </ip>
</overlay-gateway>
```

Parameters

loopback-id
> Specifies loopback port number.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay–gateway/{gateway-name}/ip/interface/ve/{ve-id}/fabric-virtual-gateway

Uses Fabric-Virtual-Gateway IP address.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
    <ip>
        <interface>
            <ve>
                <ve-id>1</ve-id>
                <fabric-virtual-gateway></fabric-virtual-gateway>
            </ve>
        </interface>
    </ip>
</overlay-gateway>
```

Parameters

ve-id

  Specifies VE interface number.

fabric-virtual-gateway

  Enables use of Fabric-Virtual-Gateway IP address.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/ip/interface/ve/{ve-id}/vrrp-extended-group

Configures virtual router

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
    <ip>
        <interface>
            <ve>
                <ve-id>1</ve-id>
                <vrrp-extended-group>1</vrrp-extended-group>
            </ve>
        </interface>
    </ip>
</overlay-gateway>
```

Parameters

ve-id

        Specifies VE interface number.

vrrp-extended-group

        Specifies Virtual Router Indentifier. The value can range from 1 through 255.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/ipv6/access-group

Configures IPv6 access-group for the Overlay Gateway.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
    <access-lists>
        <ipv6>
            <in>
                <ipv6-acl-in-name>acl12</ipv6-acl-in-name>
                <ipv6-acl-in-dir></ipv6-acl-in-dir>
            </in>
        </ipv6>
    </access-lists>
</overlay-gateway>
```

Parameters

ipv6-acl-in-name
> Specifies IPv6 access group name.

ipv6-acl-in-dir
> Configures IPv6 access group in ingress direction.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/mac

Configures MAC access-group for the Overlay Gateway.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
    <access-lists>
        <mac>
            <in>
                <mac-acl-in-name>acl10</mac-acl-in-name>
                <mac-acl-in-dir></mac-acl-in-dir>
            </in>
        </mac>
    </access-lists>
</overlay-gateway>
```

Parameters

mac-acl-in-name
> Specifies the name of the MAC access list.

mac-acl-in-dir
> Configures MAC access-group in ingress direction.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/map

Configures the VLAN to VNI mappings for the Overlay Gateway.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>gateway2</name>
    <map>
        <vlan>
            <vni>
                <auto/>
            </vni>
        </vlan>
    </map>
</overlay-gateway>
```

Parameters

vlan

> Specifies the VLAN.

vni

> Specifies the VNI.

auto

> Specifies automatic mapping.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/monitor

Configures SPAN for the tunnels of this gateway.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>name1</name>
    <monitor>
        <session>1</session>
        <direction>both</direction>
        <remote-endpoint>any</remote-endpoint>
        <vlan-add-remove>add</vlan-add-remove>
        <vlan-range>5,14-17</vlan-range>
    </monitor>
</overlay-gateway>
```

Parameters

session

> Specifies session number.

direction

> Specifies flow direction. Flow direction can be set to the followin.g

> **both**
>
> > Both transmitted and received packets.

> **rx**
>
> > Received packets.

> **tx**
>
> > Transmitted packets.

remote-endpoint

> Specifies tunnel destination end point address. The destination end point address can be set to.

> *<A.B.C.D>*
>
> > Specifies IP address of specific tunnel end point.

> **any**
>
> > Specifies all tunnel end points.

vlan-add-remove

> Adds or removes target VLAN IDs.

vlan-range

> Specifies range of VLAN IDs to add or remove.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/sflow

Configures SFLOW for the tunnels of this gateway.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
    <sflow>
        <sflow-profile-name>sflow1</sflow-profile-name>
        <sflow-remote-endpoint>any</sflow-remote-endpoint>
        <sflow-vlan-action>add</sflow-vlan-action>
        <sflow-vlan-range>100</sflow-vlan-range>
    </sflow>
</overlay-gateway>
```

Parameters

sflow-profile-name

> Specifies Sflow profile name.

sflow-remote-endpoint

> Specifies tunnel destination end point address. The destination end point address can be set to.

> *<A.B.C.D>*

> > Specifies IP address of specific tunnel end point.

> **any**

> > Specifies all tunnel end points.

sflow-vlan-action

> Specifies the action on target VLAN IDs. There are two action.

> **add**

> > Specifies target VLAN IDs to add.

> **remove**

> > Specifies taarget VLAN IDs to remove.

sflow-vlan-range

> Specified the range of VLAN IDs to add or remove.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/site

Configures remote extension site.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
    <site>
        <name>site1</name>
    </site>
</overlay-gateway>
```

Parameters

name

Specifies the site name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/site/{site-name}/bfd

Creates BFD session for the tunnels to the remote site.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>og1</name>
    <site>
        <name>site1</name>
        <bfd>
            <params>
                <interval>
                    <min-tx>110</min-tx>
                    <min-rx>330</min-rx>
                    <multiplier>3</multiplier>
                </interval>
            </params>
        </bfd>
    </site>
</overlay-gateway>
```

Parameters

name

> Specifies the site name

min-tx

> Specifies BFD desired minimum transmit interval in milliseconds. The value can range from 100 through 30000. The default value is 100.

min-rx

> Specifies BFD desired minimum receive interval in milliseconds. The value can range from 300 through 30000. The default value is 300.

multiplier

> Specifies BFD detection time multiplier. The value can range from 3 through 50. The default value is 3.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/site/{site-name}/ extend

Configures Layer2 domains to be extended towards this site.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>gateway2</name>
    <site>
        <name>sanjose</name>
        <extend>
            <vlan>
                <add>1-10</add>
            </vlan>
        </extend>
    </site>
</overlay-gateway>
```

Parameters

name

> Specifies site name.

add

> Specifies VLAN IDs to add.

remove

> Specifies VLAN IDs to remove.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/site/{site-name}/ip

Configures tunnel destination IP address.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>gateway2</name>
    <site>
        <name>sanjose</name>
        <tunnel-dst>
            <address>10.10.10.1</address>
        </tunnel-dst>
    </site>
</overlay-gateway>
```

Parameters

name

> Specifies site name.

address

> Specifies tunnel destination IP address.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/site/{site-name}/ mac-learning/protocol/bgp

By default, MAC address learning is enabled on VXLAN Layer 2 extension tunnels. Use this command to delegate the responsibility for MAC learning on a tunnel to the Layer 3 control-plane protocol, such as BGP EVPN.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>overlaygateway1</name>
    <site>
        <name>site1</name>
        <mac-learning>
            <protocol>bgp</protocol>
        </mac-learning>
    </site>
</overlay-gateway>
```

Parameters

name
> Specifies the site name.

protocol
> Specifies control plane MAC learning protocol.

bgp
> Sets BGP-EVPN based MAC learning

History

Release version	History
7.0.0	This Netconf call was introduced.

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/site/{site-name}/ shutdown

Disables tunnel to the remote site.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>gateway2</name>
    <site>
        <name>sanjose</name>
        <shutdown></shutdown>
    </site>
</overlay-gateway>
```

Parameters

name
>   Specifies the name of the site.

shutdown
>   Disables tunnels to the remote site.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

overlay-gateway/{gateway-name}/type

pecifies whether a VXLAN overlay gateway uses NSX Controller or OpenStack integration, or Layer 2 extension.

Usage

```
<overlay-gateway xmlns="urn:brocade.com:mgmt:brocade-tunnels">
    <name>overlaygateway1</name>
    <gw-type>hardware-vtep</gw-type>
</overlay-gateway>
```

Parameters

name

> Specifies the overlay gateway name

gw-type

> Specifies the type of Overlay Gateway. There are two types of Overlay Gateway

> **hardware-vtep**
>> Specifies NSX Controller/OpenStack integration

> **layer2-extension**
>> Specifies Layer 2 extension

History

Release version	History
7.0.0	This Netconf call was modified to deprecate the **nsx** keyword and replace it with the **hardware-vtep** keyword, supporting both NSX Controller and OpenStack deployments.

protocol/cfm

Configures the CFM protocol.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
            <cfm xmlns="urn:brocade.com:mgmt:brocade-dot1ag">
                <domain-name>
                    <domain-name>{req_val}</domain-name>
                    <ma-name>
                        <ma-name>{req_val}</ma-name>
                        <cfm-ma-sub-commands>
                            <mep>
                                <mep-id>{req_val}</mep-id>
                            </mep>
                        </cfm-ma-sub-commands>
                    </ma-name>
                </domain-name>
            </cfm>
        </protocol>
```

Parameters

domain-name

> Specifies the maintenance domain name.

ma-name

> Specifies the maintenance association name.

mep-id

> Specifies maintenance endpoint ID.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/link–oam

Configures the Link OAM protocol.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
            <link-oam xmlns="urn:brocade.com:mgmt:brocade-dot3ah">
                <shutdown/>
            </link-oam>
        </protocol>
```

History

Release version	History
17r.1.01	This NETCONF call was introduced.

protocol/lldp/advertise/dcbx-fcoe-app-tlv

Enables IEEE data centre bridging exchange FCoE Application TLV.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <advertise>
            <dcbx-fcoe-app-tlv></dcbx-fcoe-app-tlv>
        </advertise>
    </lldp>
</protocol>
```

Parameters

dcbx-fcoe-app-tlv

Enables IEEE data centre bridging exchange FCoE Application TLV.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/advertise/dcbx-fcoe-logical-link-tlv

Enables IEEE data centre bridging exchange FCoE logical link TLV.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <advertise>
            <dcbx-fcoe-logical-link-tlv></dcbx-fcoe-logical-link-tlv>
        </advertise>
    </lldp>
</protocol>
```

Parameters

dcbx-fcoe-logical-link-tlv

Enables IEEE data centre bridging exchange FCoE logical link TLV.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/advertise/dcbx-iscsi-app-tlv

Enables IEEE data centre bridging exchange iSCSI application TLV.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <advertise>
            <dcbx-iscsi-app-tlv></dcbx-iscsi-app-tlv>
        </advertise>
    </lldp>
</protocol>
```

Parameters

dcbx-iscsi-app-tlv

Enables IEEE data centre bridging exchange iSCSI application TLV.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/advertise/dcbx-tlv

Enables IEEE data centre bridging exchange TLV.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <advertise>
            <dcbx-tlv></dcbx-tlv>
        </advertise>
    </lldp>
</protocol>
```

Parameters

dcbx-tlv

Enables IEEE data centre bridging exchange TLV.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/advertise/dot1-tlv

Enables IEEE 802.1 organizationally specific TLV.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <advertise>
            <dot1-tlv></dot1-tlv>
        </advertise>
    </lldp>
</protocol>
```

Parameters

dot1-tlv

Enables IEEE 802.1 organizationally specific TLV.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/advertise/dot3-tlv

Enables IEEE 802.3 organizationally specific TLV.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <advertise>
            <dot3-tlv></dot3-tlv>
        </advertise>
    </lldp>
</protocol>
```

Parameters

dot3-tlv

Enables IEEE 802.3 organizationally specific TLV.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/advertise/optional-tlv

Enables the optional TLVs.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <advertise>
            <optional-tlv>
                <management-address></management-address>
                <port-description></port-description>
                <system-capabilities></system-capabilities>
                <adv-tlv-system-description></adv-tlv-system-description>
                <adv-tlv-system-name></adv-tlv-system-name>
            </optional-tlv>
        </advertise>
    </lldp>
</protocol>
```

Parameters

management-address

> Enables management address TLV.

port-description

> Enables port description TLV.

system-capabilities

> Enables system capabilities TLV.

adv-tlv-system-description

> Specifies the system description .

adv-tlv-system-name

> Specifies the system name .

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/description

Configures user description for LLDP.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <description>lldpconfig</description>
    </lldp>
</protocol>
```

Parameters

description

> Specifies user description for LLDP.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/disable

Disable LLDP configuration.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <disable></disable>
    </lldp>
</protocol>
```

Parameters

disable

Disables LLDP configuration.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/hello

Configures the hello transmit interval.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <hello>35</hello>
    </lldp>
</protocol>
```

Parameters

hello

Specifies the hello transmit interval. The value can range from 4 through 180 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/iscsi-priority

Configures the Ethernet priority to advertise for iSCSI.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <iscsi-priority>3</iscsi-priority>
    </lldp>
</protocol>
```

Parameters

iscsi-priority

> Specifies the iSCSI Ethernet priority value. The value can range from 0 through 7.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/mode

Configures the LLDP mode.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <mode>rx</mode>
    </lldp>
</protocol>
```

Parameters

mode

> Specifies the LLDP mode.

> **rx**

>> LLDP receive only mode.

> **tx**

>> LLDP transmit only mode.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/multiplier

Configures the timeout multiplier.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <multiplier>3</multiplier>
    </lldp>
</protocol>
```

Parameters

multiplier

Specifies the timeout multiplier value. The value can range from 2 through 10.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/profile/{profile-name}/advertise

Applies a Link Layer Discovery Protocol (LLDP) profile to an interface.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <profile>
            <profile-name>profile1</profile-name>
            <advertise>
                <dcbx-tlv></dcbx-tlv>
            </advertise>
        </profile>
    </lldp>
</protocol>
```

Parameters

profile-name

> Specifies the profile name.

advertise

> Specifies the advertise TLV configuration.

> **dcbx-fcoe-app-tlv**
>
> > Advertises application Type, Length, Values (TLVs) to ensure interoperability of traffic over the Data Center Bridging eXchange protocol (DCBX), which runs over LLDP to negotiate an FCoE application TLV.

> **dcbx-fcoe-logical-link-tlv**
>
> > Advertises to any attached device the FCoE status of the logical link.

> **dcbx-iscsi-app-tlv**
>
> > Advertises the iSCSI traffic configuration parameters for Type, Length, Values (TLV) values.

> **dcbx-tlv**
>
> > Advertises to any attached device mandatory Data Center Bridging eXchange protocol (DCBX) Type, Length, Values (TLV) values.

> **dot1-tlv**
>
> > Advertises to any attached device IEEE 802.1 organizationally specific Type, Length, Values (TLV) values.

dot3-tlv

> Advertises to any attached device IEEE 802.3 organizationally specific Type, Length, Values (TLV) values.

optional-tlv

> Advertises the optional Type, Length, and Values (TLV) values.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/profile/{profile-name}/hello

Sets the interval between LLDP hello messages.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <profile>
            <profile-name>profile1</profile-name>
            <hello>100</hello>
        </profile>
    </lldp>
</protocol>
```

Parameters

profile-name

  Specifies the profile naem.

hello

  Specifies the interval between hello messages. The value can range from 4 through 180 seconds. The default interval is 30 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/profile/{profile-name}/mode

Sets the LLDP mode on the switch.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <profile>
            <profile-name>profile1</profile-name>
            <mode>rx</mode>
        </profile>
    </lldp>
</protocol>
```

Parameters

profile-name

> Specifies the profile name.

mode

> Specifies the LLDP mode on the switch.

> **tx**
>
> > Specifies to enable only the transmit mode.

> **rx**
>
> > Specifies to enable only the receive mode.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/profile/{profile-name}/multiplier

Sets the number of consecutive misses of hello messages before LLDP declares the neighbor as dead.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <profile>
            <profile-name>profile1</profile-name>
            <multiplier>2</multiplier>
        </profile>
    </lldp>
</protocol>
```

Parameters

profile-name

> Specifies the profile name

multiplier

> Specifies a multiplier value to use. The values can range from 2 through 10. The default value is 4.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/system-description

Configures the system description.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <system-description>Brocade-VDX-VCS 1</system-description>
    </lldp>
</protocol>
```

Parameters

system-description
> Specifies the system description.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/lldp/system-name

Configures the system name.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <lldp xmlns="urn:brocade.com:mgmt:brocade-lldp">
        <system-name>client</system-name>
    </lldp>
</protocol>
```

Parameters

system-name
> Specifies the system-name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/bridge-priority

Configures bridge priority commands for multiple spanning tree protocol.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <bridge-priority>32768</bridge-priority>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

bridge-priority

Specifies the bridge priority. The value can range from 0 through 61440 and bridge priority must be set in increments of 4096.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/cisco-interoperability

Configures Cisco interoperability.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <cisco-interoperability>disable</cisco-interoperability>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

cisco-interoperability

Enables or disables cisco interoperability.

disable

Disables cisco interoperability.

enable

Enables cisco interoperability.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/description

Configures spanning tree description.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <description>mstpsan</description>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

description

Specifies spanning tree description.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/error-disable-timeout/enable

Enables timeout for the port to be enabled back.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <error-disable-timeout>
                <enable></enable>
            </error-disable-timeout>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

enable

Enables timeout for the port to be enabled back.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/error-disable-timeout/interval

Configures time interval after which port will be enabled.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <error-disable-timeout>
                <interval>350</interval>
            </error-disable-timeout>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

interval

Specifies time interval after which port will be enabled. The value can range from 10 through 1000000 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/forward-delay

Configures the forward delay time for the spanning tree.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <forward-delay>20</forward-delay>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

forward-delay

Specifies forward delay time. The delay tiem can range from 4 through 30 seconds. The default delay time is set to 15 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/hello-time

Configures the hello time interval for the spanning tree.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <hello-time>3</hello-time>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

hello-time

> Sopecifies the hello time. The hello time can range from 1 through 20 seconds. The default hello time is set to 2 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/instance/priority

Configures bridge priority for the common instance.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <instance>
                <id>1</id>
                <priority>4096</priority>
            </instance>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

id

Specifies MSTP instance Id. The value can range from 1 through 31.

priority

Specifies the bridge priority. The value can range from 0 through 61440.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/instance/vlan

Configures VLAN for MSTP.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <instance>
                <id>1</id>
                <vlan>1</vlan>
            </instance>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

id

Specifies MSTP instance ID.

vlan

Specifies VLAN.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/max-age

Configures the max age for the spanning tree.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <max-age>25</max-age>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

max-age

> Specifies the maximum time to listen for root bridge in seconds. The value can range from 6 through 40 seconds. The default time is set to 20. seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/max-hops

Configures the maximum hops the BPDU will be valid for.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <max-hops>25</max-hops>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

max-hops

Specifies the maximum hops the BPDU will be valid for. The value can range from 1 through 40.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/port-channel

Controls port channel behavior for spanning tree

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <port-channel>
                <path-cost>standard</path-cost>
            </port-channel>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

path-cost

> Sets the path cost behavior.

> **custom**

>> Custom behavior - pathcost will change according to bandwidth.

> **standard**

>> Standard behavior - pathcost will not change according to bandwidth.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/region

Sets the MST region.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <region>region1</region>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

region
> Specifies the name of the region.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/revision

Sets the revision number.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <revision>1</revision>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

revision

Specifies the revision number. The value can range from 0 through 255.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/shutdown

Disables the Multiple Spanning Tree Protocol (MSTP) globally.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <shutdown></shutdown>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

shutdown

Shuts down the spanning tree protocol.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/mstp/transmit-holdcount

Configures transmit hold count of the bridge.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <mstp>
            <transmit-holdcount>7</transmit-holdcount>
        </mstp>
    </spanning-tree>
</protocol>
```

Parameters

transmit-holdcount
> Specifies the transmit hold count. The value can range from 1 through 10.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/pvst/bridge-priority

Configures bridge priority for PVST Spanning-tree.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <bridge-priority>32768</bridge-priority>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

bridge-priority
> Specifies the bridge priority. Valid values range from 0 through 61440 in increments of 4096.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning–tree/pvst/description

Configures the PVST spanning-tree description.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <description>pvstspan</description>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

decsription

Specifies the PVST spanning-tree description.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/pvst/error-disable-timeout/enable

Enables the timeout mechanism for the port to be enabled back.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <error-disable-timeout>
                <enable></enable>
            </error-disable-timeout>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

enable

Enables timeout for PVST spanning tree.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/pvst/error-disable-timeout/interval

Configures interval after which port shall be enabled.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <error-disable-timeout>
                <interval>350</interval>
            </error-disable-timeout>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

interval

Specifies the time for the interface to time out. The interval can range from 10 through 1000000 seconds. Ther default interval is 300 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/pvst/forward-delay

Specifies the time an interface spends in each of the listening and learning states.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <forward-delay>20</forward-delay>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

forward-delay

> Specifies the time that an interface spends in the Spanning Tree Protocol (STP) learning and listening states. Valid values range from 4 through 30 seconds. The default value is 15 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/pvst/hello-time

Sets the interval between the hello Bridge Protocol Data Units (BPDUs) sent on an interface.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <hello-time>3</hello-time>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

hello-time

Specifies the time interval between the hello BPDUs sent on an interface. The value can range from 1through 10 seconds. The default value is 2 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/pvst/max-age

Sets the interval time in seconds between messages that the PVST spanning tree receives from the interface.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <max-age>25</max-age>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

max-age

> Specifies the PVST Spanning Tree Protocol interface maximum age. The value can range from 6 through 40. The default value is 20 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/pvst/port-channel

Sets the path-cost behavior.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <port-channel>
                <path-cost>standard</path-cost>
            </port-channel>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

path-cost

Sets the path cost behaviour

custom

Specifies to use the custom behavior, which sets the path-cost changes according to the port-channel's bandwidth.

standard

Specifies to use the standard behavior, which sets that the path-cost does not change according to port-channel's bandwidth.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/pvst/shutdown

Disables the Rapid Spanning Tree Protocol (RSTP) globally.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <shutdown></shutdown>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

shutdown

Disables the Rapid Spanning Tree Protocol (RSTP) globally.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/pvst/vlan/forward-delay

Configures the forward-delay for PVST spanning tree

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <vlan>
                <id>1</id>
                <forward-delay>20</forward-delay>
            </vlan>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

forward-delay

Specifies the forward delay time in seconds. The value can range from 4 to 30 seconds. The default value is 15 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/pvst/vlan/hello-time

Configures the hello interval for the PVST spanning tree.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <vlan>
                <id>1</id>
                <hello-time>3</hello-time>
            </vlan>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

id

> Specifies the VLAN ID.

hello-time

> Specifies the hello interval. The interval can range from 4 to 30 seconds. The default value is 2 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/pvst/vlan/max-age

Configures the max-age for the PVST spanning tree.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <vlan>
                <id>1</id>
                <max-age>25</max-age>
            </vlan>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

id

      Specifies the VLAN ID.

max-age

      Specifies the max-age for the PVST spanning tree.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/pvst/vlan/priority

Configures the bridge priority.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <pvst>
            <vlan>
                <id>1</id>
                <priority>4096</priority>
            </vlan>
        </pvst>
    </spanning-tree>
</protocol>
```

Parameters

id

Specifies the VLAN ID.

priority

Specifies the bridge priortity in increments of 4096.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/bridge-priority

Specifies the bridge priority for the common instance.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <bridge-priority>32768</bridge-priority>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

bridge-priority

Specifies the bridge priority. The values can range from 0 through 61440 in increments of 4096. The default value is 32768.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/description

Configures the RPVST Spanning tree description.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <description>rpvstspan</description>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

decription

    Specifies the RPVST Spanning tree description.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/error-disable-timeout/enable

Enables the timer to bring the interface out of the error-disabled state.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <error-disable-timeout>
                <enable></enable>
            </error-disable-timeout>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

enable

Enables the timer to bring the interface out of the error-disabled state.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/error-disable-timeout/interval

Configures the timeout for errors on an interface.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <error-disable-timeout>
                <interval>400</interval>
            </error-disable-timeout>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

interval

> Specifies the time for the interface to time out. The value can range from 10 through 1000000 seconds. The default value is 300 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/forward-delay

Specifies the time an interface spends in each of the listening and learning states.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <forward-delay>20</forward-delay>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

forward-delay

> Specifies the time that an interface spends in the RPVST Spanning Tree Protocol (STP) learning and listening states. Valid values range from 4 through 30 seconds. The default value is 15 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/hello-time

Sets the interval between the hello Bridge Protocol Data Units (BPDUs) sent on an interface.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <hello-time>3</hello-time>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

hello-time

Specifies the time interval between the hello BPDUs sent on an interface. The value can range from 1 through 10 seconds. The default value is 2 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/max-age

Sets the interval time in seconds between messages that the spanning tree receives from the interface.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <max-age>35</max-age>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

max-age

Configures the Spanning Tree Protocol interface maximum age. The valid value can range from 6 through 40. The default value is 20 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/port-channel

Sets the path-cost behavior.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <port-channel>
                <path-cost>standard</path-cost>
            </port-channel>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

path-cost

> Sets the path cost priority.

> **custom**
>
> > Specifies to use the custom behavior, which sets the path-cost changes according to the port-channel's bandwidth.

> **standard**
>
> > Specifies to use the standard behavior, which sets that the path-cost does not change according to port-channel's bandwidth.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/shutdown

Disables the Rapid PVST(RPVST) globally.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <shutdown></shutdown>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

shutdown

Disables the Rapid PVST(RPVST) globally.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/transmit-holdcount

Configures the maximum number of Bridge Protocol Data Units (BPDUs) transmitted per second for the R-PVST+.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <transmit-holdcount>5</transmit-holdcount>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

transmit-holdcount

Specifies the number of BPDUs than can be sent before pausing for 1 second. The value can range from 1 through 10. The default value is 6 units.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/vlan/forward-delay

Configures the forward-delay for RPVST spanning tree.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <vlan>
                <id>1</id>
                <forward-delay>20</forward-delay>
            </vlan>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

id

Specifies the VLAN ID.

forward-delay

Specifies the forward delay time in seconds. The value can range from 4 to 30 seconds. The default value is 15 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/vlan/hello-time

Configures the hello interval for the RPVST spanning tree.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <vlan>
                <id>1</id>
                <hello-time>3</hello-time>
            </vlan>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

id
> Specifies the VLAN ID.

hello-time
> Specifies the hello interval. The interval can range from 4 to 30 seconds. The default value is 2 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/vlan/max-age

Configures the max-age for the RPVST spanning tree.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <vlan>
                <id>1</id>
                <max-age>25</max-age>
            </vlan>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

id

      Specifies the VLAN ID.

max-age

      Specifies the max-age for the RPVST spanning tree.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rpvst/vlan/priority

Configures the bridge priority.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <vlan>
                <id>1</id>
                <priority>4096</priority>
            </vlan>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

id

Specifies the VLAN ID

priority

Specifies the bridge priortity in increments of 4096. The value can range from.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rstp/bridge-priority

Specifies the bridge priority for the common instance.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <bridge-priority>32768</bridge-priority>
        </rstp>
    </spanning-tree>
</protocol>
```

Parameters

bridge-priority

Specifies the bridge priority. The values can range from 0 through 61440 in increments of 4096. The default value is 32768.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rstp/description

Configures the Rapid Spanning tree (RSTP) description.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <description>rstpspan</description>
        </rstp>
    </spanning-tree>
</protocol>
```

Parameters

description

Specifies the RPVST Spanning tree description.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rstp/error-disable-timeout/ enable

Enables the timer to bring the interface out of the error-disabled state.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <error-disable-timeout>
                <enable></enable>
            </error-disable-timeout>
        </rstp>
    </spanning-tree>
</protocol>
```

Parameters

enable

Enables the timer to bring the interface out of the error-disabled state.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rstp/error-disable-timeout/interval

Configures the timeout for errors on an interface.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <error-disable-timeout>
                <interval>500</interval>
            </error-disable-timeout>
        </rstp>
    </spanning-tree>
</protocol>
```

Parameters

interval

Specifies the time for the interface to time out. The value can range from 10 through 1000000 seconds. The default value is 300 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rstp/forward-delay

Specifies the time an interface spends in each of the listening and learning states.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <forward-delay>30</forward-delay>
        </rstp>
    </spanning-tree>
</protocol>
```

Parameters

forward-delay

> Specifies the time that an interface spends in the RPVST Spanning Tree Protocol (STP) learning and listening states. Valid values range from 4 through 30 seconds. The default value is 15 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rstp/hello-time

Sets the interval between the hello Bridge Protocol Data Units (BPDUs) sent on an interface.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <hello-time>4</hello-time>
        </rstp>
    </spanning-tree>
</protocol>
```

Parameters

hello-time

Specifies the time interval between the hello BPDUs sent on an interface. The value can range from 1 through 10 seconds. The default value is 2 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rstp/max-age

Sets the interval time in seconds between messages that the spanning tree receives from the interface.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <max-age>40</max-age>
        </rstp>
    </spanning-tree>
</protocol>
```

Parameters

max-age

> Specifies the Rapid Spanning Tree Protocol interface maximum age. The valid value can range from 6 through 40. The default value is 20 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rstp/port-channel

Sets the path-cost behavior.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <port-channel>
                <path-cost>standard</path-cost>
            </port-channel>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

path-cost

Sets the path cost priority

custom

Specifies to use the custom behavior, which sets the path-cost changes according to the port-channel's bandwidth .

standard

Specifies to use the standard behavior, which sets that the path-cost does not change according to port-channel's bandwidth.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rstp/shutdown

Disables the Rapid Spanning Tree Protocol (RSTP) globally.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <shutdown></shutdown>
        </rstp>
    </spanning-tree>
</protocol>
```

Parameters

shutdown

Disables the Rapid Spanning Tree Protocol (RSTP) globally.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/rstp/transmit-holdcount

Configures the maximum number of Bridge Protocol Data Units (BPDUs) transmitted per second for the RSTP.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rpvst>
            <transmit-holdcount>5</transmit-holdcount>
        </rpvst>
    </spanning-tree>
</protocol>
```

Parameters

transmit-holdcount

Specifies the number of BPDUs than can be sent before pausing for 1 second. The value can range from 1 through 10. The default value is 6 units.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/stp/bridge-priority

Specifies the bridge priority for the common instance.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <stp>
            <bridge-priority>32768</bridge-priority>
        </stp>
    </spanning-tree>
</protocol>
```

Parameters

bridge-priority

Specifies the bridge priority. The values can range from 0 through 61440 in increments of 4096. The default value is 32768.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/stp/description

Configures the STP Spanning tree description.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <stp>
            <description>stpspan</description>
        </stp>
    </spanning-tree>
</protocol>
```

Parameters

description

Specifies the STP Spanning tree description.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/stp/error-disable-timeout/enable

Enables the timer to bring the interface out of the error-disabled state.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <stp>
            <error-disable-timeout>
                <enable></enable>
            </error-disable-timeout>
        </stp>
    </spanning-tree>
</protocol>
```

Parameters

enable

Enables the timer to bring the interface out of the error-disabled state.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/stp/error-disable-timeout/interval

Configures the timeout for errors on an interface.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <rstp>
            <error-disable-timeout>
                <interval>550</interval>
            </error-disable-timeout>
        </rstp>
    </spanning-tree>
</protocol>
```

Parameters

interval

> Specifies the time for the interface to time out. The value can range from 10 through 1000000 seconds. The default value is 300 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/stp/forward-delay

Specifies the time an interface spends in each of the listening and learning states.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <stp>
            <forward-delay>30</forward-delay>
        </stp>
    </spanning-tree>
</protocol>
```

Parameters

forward-delay

Specifies the time that an interface spends in the RPVST Spanning Tree Protocol (STP) learning and listening states. Valid values range from 4 through 30 seconds. The default value is 15 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/stp/hello-time

Sets the interval between the hello Bridge Protocol Data Units (BPDUs) sent on an interface.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <stp>
            <hello-time>5</hello-time>
        </stp>
    </spanning-tree>
</protocol>
```

Parameters

hello-time
>   Specifies the time interval between the hello BPDUs sent on an interface. The value can range from 1 through 10 seconds. The default value is 2 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/stp/max-age

Sets the interval time in seconds between messages that the spanning tree receives from the interface.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <stp>
            <max-age>40</max-age>
        </stp>
    </spanning-tree>
</protocol>
```

Parameters

max-age

> Specifies the Rapid Spanning Tree Protocol interface maximum age. The valid value can range from 6 through 40. The default value is 20 seconds.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/stp/port-channel

Sets the path-cost behavior.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <stp>
            <port-channel>
                <path-cost>standard</path-cost>
            </port-channel>
        </stp>
    </spanning-tree>
</protocol>
```

Parameters

path-cost

> Sets the path cost priority

> **custom**
>
> > Specifies to use the custom behavior, which sets the path-cost changes according to the port-channel's bandwidth.

> **standard**
>
> > Specifies to use the standard behavior, which sets that the path-cost does not change according to port-channel's bandwidth.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

protocol/spanning-tree/stp/shutdown

Disables the STP Spanning Tree Protocol globally.

Usage

```
<protocol xmlns="urn:brocade.com:mgmt:brocade-interface">
    <spanning-tree xmlns="urn:brocade.com:mgmt:brocade-xstp">
        <stp>
            <shutdown></shutdown>
        </stp>
    </spanning-tree>
</protocol>
```

Parameters

shutdown

Disables the STP Spanning Tree Protocol globally.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

radius-server

Configures a RADIUS server for AAA.

Usage

```
<radius-server xmlns="urn:brocade.com:mgmt:brocade-aaa">
    <host>
        <hostname>1.1.1.1</hostname>
        <auth-port>1812</auth-port>
        <protocol>chap</protocol>
        <key>Yf0BKEhsc83gp+kIoGMQ/g==</key>
        <encryption-level>7</encryption-level>
        <retries>6</retries>
        <timeout>10</timeout>
    </host>
</radius-server>
```

Parameters

hostname
> Specifies the domain name or the IP address of this radius server

auth-port
> Specifies UDP authentication port. The value can range from 1 through 65535. The default value is 1812

protocol
> Specifies the authentication protocol to be used. Three protocol options are available

key
> Specifies the secret shared with this server. The secret entered overrides the default secret

encryption-level
> Specifies the encryption level. Encrytion level can be set to

> 0
>> Stores the key in clear text format

> 7
>> Stores the key in encrypted format

retries
> Specifies number of retries for this server connection. The value can range from 0 through 100. The default number of retries is set to 5

timeout
> Specifies the wait time for this server to respond. The value can range from 1 through 60 seconds. The default value is 5 seconds

History

Release version	History
7.0.0	This Netconf call was introduced.

Release version	History
16r.1.01	This NETCONF call was introduced.

ras

Collects data for SupportSave.

Usage

```
<copy xmlns="urn:brocade.com:mgmt:brocade-ras">
  <support>
   <scp>
     <user>{req_val}</user>
      <host>{req_val}</host>
      <directory>{req_val}</directory>
      <password>{req_val}</password>
      <timeout>{req_val}</timeout>
     </scp>
  </support>
```

Parameters

support

Specifies support.

scp

Specifies secure copy (SCP).

user

Specifies the username.

host

Specifies the IP address of the host.

directory

Specifies the directory.

password

Specifies the password.

timeout

Specifies the value for timeout.

History

Release version	History
17r.1.00	This NETCONF call was introduced.

rmon/alarm

Configures Remote Monitoring Protocol (RMON) alarm.

Usage

```
<rmon xmlns="urn:brocade.com:mgmt:brocade-rmon">
    <alarm-entry>
        <alarm-index>5</alarm-index>
        <snmp-oid>1.3.6.1.2.1.16.1.1.1.5.65535</snmp-oid>
        <alarm-interval>30</alarm-interval>
        <alarm-sample>absolute</alarm-sample>
        <alarm-rising-threshold>195</alarm-rising-threshold>
        <alarm-rising-event-index>25</alarm-rising-event-index>
        <alarm-falling-threshold>95</alarm-falling-threshold>
        <alarm-falling-event-index>27</alarm-falling-event-index>
        <alarm-owner>john_smith</alarm-owner>
    </alarm-entry>
</rmon>
```

Parameters

alarm-index

> Specifies the alarm index. The value can range from 1 through 65535.

snmp-oid

> Specifies sampling object SNMP OID.

alarm-interval

> Specifies alarm interval. The interval can range from 1 through 2147483648 seconds.

alarm-sample

> Specifies alarm sample type.

> **absolute**

> > Sample type absolute.

> **delta**

> > Sample type delta.

alarm-rising-threshold

> Specifies alarm rising threshold value. The value can range from 0 through 4294967295.

alarm-rising-event-index

> Specifies event index for rising threshold. The value can range from 1 through 65535.

alarm-falling-threshold

> Specifies alarm falling threshold value. The value can range from 0 through 4294967295.

alarm-falling-event-index

> Specifies event index for falling threshold. The value can range from 1 through 65535.

alarm-owner

> Specifies the owner identity.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

rmon/event

Configures Remote Monitoring Protocol (RMON) event.

Usage

```
<rmon xmlns="urn:brocade.com:mgmt:brocade-rmon">
    <event-entry>
        <event-index>23</event-index>
        <event-description>event1</event-description>
        <log></log>
        <event-community>default</event-community>
        <event-owner>owner1</event-owner>
    </event-entry>
</rmon>
```

Parameters

event-index

> Specifies event index. The value can range from 1 through 65535.

event-description

> Specifies event description.

log

> Logs the event.

event-community

> Sends traps for the event.

event-owner

> Specifies owner name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

interface/{interface-type}/{interface-name}/isis

Configures the IS-IS protocol.

Usage

```
<interface xmlns="urn:brocade.com:mgmt:brocade-interface">
            <ethernet>
                <name>{req_val}</name>
                <ip>
                    <intf-router-isis xmlns="urn:brocade.com:mgmt:brocade-isis">
                        <int-router-isis>
                            <interface-ip-router-isis/>
                        </int-router-isis>
                    </intf-router-isis>
                </ip>
            </ethernet>
        </interface>
```

Parameters

ethernet

Specifies the Ethernet interface.

name

Specifies the interface name.

int-router-isis

Specifies the ISIS router interface.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/isis/is-type

Changes the IS-IS level globally.

Usage

```
<routing-system xmlns="urn:brocade.com:mgmt:brocade-common-def">
    <router>
        <isis xmlns="urn:brocade.com:mgmt:brocade-isis">
            <router-isis-cmds-holder>
                <router-isis-attributes>
                    <is-type/>
                </router-isis-attributes>
            </router-isis-cmds-holder>
        </isis>
    </router>
</routing-system>
```

Parameters

router-isis-attributes

Configures the ISIS router atrributes.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

route-map

Configures, retrieves, and modifies route-map instance.

Usage

```
<routing-system xmlns="urn:brocade.com:mgmt:brocade-common-def">
            <route-map xmlns="urn:brocade.com:mgmt:brocade-ip-policy">
                <name>{req_val}</name>
                <action-rm>{req_val}</action-rm>
                <instance>{req_val}</instance>
            </route-map>
        </routing-system>
```

Parameters

name

Specifies route-map name.

action-rm

Specifies the action.

instance

Specifies the route-map instance ID.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls

Configures the MPLS protocol.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
    <router>
        <mpls/>
    </router>
</mpls-config>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/ldp

Configures the Label Distribution Protocol (LDP).

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <ldp/>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

ldp-session-ip
> Specifies the LDP peer ip address.

ldp-targeted-peer-ip
> Specifies the peer IP Address.

load-sharing
> Specifies the number of load-sharing paths.

hello-interval-link
> In seconds (1-32767, default 5).

hello-interval-target
> In seconds (1-32767, default 15).

hello-timeout-link
> In seconds (2-65535, default 15).

hello-timeout-target
> In seconds (2-65535, default 45).

ka-interval
> In seconds (1-65535 default 6).

ka-int-count
> In seconds (1-65535 default 6).

ka-timeout
> In seconds (1-65535).

filter-fec-in
> Apply filtering on inbound FECs.

filter-fec-out
> Apply filtering on inbound FECs.

advertise-fec
> In seconds (1-65535).

lsr-id

       IP address to be used as LSR id for LDP.

filter-fec-out

       Apply filtering on outbound FECs.

rx-label-silence-timer

       Specifies the receive label silence time (100-60000 ms). The default is 1000.

key

       Enables TCP-MD5 authentication.

rx-label-silence-timer

       Specifies the receive label silence time (100-60000 ms). The default value is 1000.

max-neighbor-reconnect-time

       Specifies the maximum time to wait for neighbor to reconnect (60-300 sec). The default value is 120.

max-neighbor-recovery-time

       Specifies the maximum time to wait for neighbor to recover (60-3600 sec). The default value is 120.

reconnect-time

       Specifies the session reconnect time (60-300 sec). The default value is 120.

recovery-time

       Recovery time (60-3600 sec). The default value is 120.

tx-label-silence-timer

       Specifies the transmit label silence timer (100-60000 msec).The default value is 1000.

notification-timer

       Specifies the notification timer (100-120000 msec). The default value is 60000.

tunnel-metric

       Specifies the LDP tunnel metric value (1-65535; default 0).

label-withdrawal-delay

       Specifies the label withdrawal delay. The range is from 0 to 300. The default value is 60.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp

Configures the MPLS RSVP.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <rsvp-periodic-flooding-time/>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
```

Parameters

policy

Specifies the MPLS policy.

rsvp-periodic-flooding-tim

Specifies the periodic flooding time.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy

Configures an MPLS policy.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy/>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

policy
> Specifies the MPLS policy.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/transit-session-accounting

Enables traffic statistics for transit sessions.

Usage

```
mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
              <router>
                  <mpls>
                      <mpls-cmds-holder>
                          <policy>
                              <transit-session-accounting/>
                          </policy>
                      </mpls-cmds-holder>
                  </mpls>
              </router>
          </mpls-config>
```

Parameters

policy

> Specifies the MPLS policy.

transit-session-accounting

> Specifies transit session account.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/ingress-tunnel-accounting

Enables traffic statistics for tunnel interfaces.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <ingress-tunnel-accounting/>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>>
```

Parameters

policy
> Specifies the MPLS policy.

ingress-tunnel-accounting
> Enables traffic statistics for tunnel interfaces

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/qos-ttl-mode

Configures the MPLS TTL and QOS propagation model.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <qos-ttl-mode/>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
      </filter>
    </get-config>
</rpc>
```

Parameters

policy

    Specifies the MPLS policy.

qos-ttl-mode

    Configures the MPLS TTL and QOS propagation model.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/traffic-engineering/isis

Defines timer value for soft preemption to happen.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
          <router>
              <mpls>
                  <mpls-cmds-holder>
                      <policy>
                          <traffic-engineering>
                              <isis-set-level/>
                          </traffic-engineering>
                      </policy>
                  </mpls-cmds-holder>
              </mpls>
          </router>
      </mpls-config>
```

Parameters

policy
>   Specifies the MPLS policy.

traffic-engineering
>   Specifies traffic engineering.

isis-set-level
>   Sets level for ISIS.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/soft-preemption/cleanup-timer

Defines timer value for soft preemption to happen.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <soft-preemption>
                                <cleanup-timer/>
                            </soft-preemption>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

policy

> Specifies the MPLS policy.

soft-preemption

> Specifies the soft preemption.

cleanup-timer

> Specifies the cleanup timer.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/cspf-computation-mode/rsvp-periodic-flooding-time

Sets the interval for RSVP TE periodic flooding.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <rsvp-periodic-flooding-time/>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

policy
>   Specifies the MPLS policy.

rsvp-periodic-flooding-time
>   Specifies the RSVP periodic flooding time.

cspf-metric-type
>   Specifies the metric type.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/qos-ttl-mode

Configures the MPLS TTL and QOS propagation model.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <qos-ttl-mode/>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

policy
> Specifies the MPLS policy.

qos-ttl-mode
> Configures the MPLS TTL and QOS propagation model.

History

Release version	History
17r.2.00	This NETCONF call was introduced.

router/mpls/policy/cspf-computation-mode/rapid-retry

Configures the rapid retry option.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <rapid-retry/>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

policy
> Specifies the MPLS policy.

rapid-retry
> Specifies rapid retry.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/cspf-computation-mode/retry-time

Configures LSP retry time.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <retry-time/>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

policy
> Specifies the MPLS policy.

rapid-retry
> Specifies the retry time.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/cspf-computation-mode/handle-ospf-neighbor-down

Configures MPLS to handle OSPF neighbor down event.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <handle-ospf-neighbor-down/>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

policy
> Specifies the MPLS policy.

handle-ospf-neighbor-down
> Handles a down OSPF neighbor.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/cspf-computation-mode/handle-isis-neighbor-down

Configures MPLS to handle ISIS neighbor down event.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <handle-isis-neighbor-down/>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

policy
> Specifies the MPLS policy.

handle-isis-neighbor-down
> Handles a down ISIS neighbor.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/cspf-computation-mode/cspf-interface-constraint

Uses interface IP address for Constrained Shortest Path First (CSPF) computation.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <cspf-interface-constraint/>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

policy
> Specifies the MPLS policy.

cspf-interface-constraint
> Specifies CSPF interface contraint.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/cspf-computation-mode/add-penalty

Adds penalty of all matching Constrained Shortest Path First (CSPF)-groups to TE metric of TE link.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
          <router>
              <mpls>
                  <mpls-cmds-holder>
                      <policy>
                          <cspf-group-computation>
                              <add-penalty/>
                          </cspf-group-computation>
                      </policy>
                  </mpls-cmds-holder>
              </mpls>
          </router>
      </mpls-config>
```

Parameters

policy
> Specifies the MPLS policy.

cspf-group-computation
> Specifies CSPF group computation.

add-penalty
> Adds penalty.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/cspf-computation-mode/metric-type

Selects metric type for CSPF computation..

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <cspf-computation-mode>
                                <cspf-metric-type/>
                            </cspf-computation-mode>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

policy
> Specifies the MPLS policy.

cspf-computation-mode
> Specifies the CSPF computation mode.

cspf-metric-type
> Specifies the metric type.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/cspf-computation-mode/ignore-overload-bit

Ignores overload bit during CSPF computation.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <cspf-computation-mode>
                                <ignore-overload-bit/>
                            </cspf-computation-mode>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

policy
> Specifies the MPLS policy.

cspf-computation-mode
> Specifies the CSPF computation mode.

ignore-overload-bit
> Ignore theoverloa bit.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/policy/backup-retry-time

Configures the backup retry time.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
        <router>
            <mpls>
                <mpls-cmds-holder>
                    <policy>
                        <backup-retry-time/>
                    </policy>
                </mpls-cmds-holder>
            </mpls>
        </router>
</mpls-config>
```

Parameters

policy
> Specifies the MPLS policy.

backup-retry-time
> Specifies the backup retry time.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/cspf-group/(cspf-group-name)/penalty

Configures the Constrained Shortest Path First (CSPF) group penalty value.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <cspf-group>
                            <cspf-group-name>{req_val}</cspf-group-name>
                            <cspf-group-penalty-n>
                                <cspf-group-penalty/>
                            </cspf-group-penalty-n>
                        </cspf-group>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

cspf-group
> Configures a CSPF group.

cspf-group-name
> Specifies the CSPF group name.

cspf-group-penalty-n
> Specifies the CSPF group penalty name.

cspf-group-penalty
> Specifies the CSPF group penalty.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/lsp-xc-traps/enable

Enable the LSP XC up, down logging and traps.

Usage

```
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <get-config>
        <source>
            <running/>
        </source>
        <filter type="subtree">
            <mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
                <router>
                    <mpls>
                        <mpls-cmds-holder>
                            <lsp-xc-traps>
                                <lsp-xc-traps-enable/>
                            </lsp-xc-traps>
                        </mpls-cmds-holder>
                    </mpls>
                </router>
            </mpls-config>
        </filter>
    </get-config>
</rpc>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/cspf-group/(cspf-groupname)/penalty

Configures the CSPF group penalty value.

Usage-DELETE

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
    <router>
        <mpls>
            <mpls-cmds-holder>
                <policy>
                    <cspf-group-computation>
                        <add-penalty/>
                    </cspf-group-computation>
                </policy>
            </mpls-cmds-holder>
        </mpls>
    </router>
</mpls-config>
```

Parameters

policy

Specifies the policy.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/lsp-xc-traps/enable

Enables the LSP cross connect up, down, logging, and traps.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
        <router>
            <mpls>
                <mpls-cmds-holder>
                    <lsp-xc-traps>
                        <lsp-xc-traps-enable/>
                    </lsp-xc-traps>
                </mpls-cmds-holder>
            </mpls>
        </router>
</mpls-config>
```

Parameters

lsp-xc-traps

>   Specifies LSP cross connect traps.

lsp-xc-traps-enable

>   Enables LSP cross conect traps.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp

Configures the MPLS RSVP.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <policy>
                            <rsvp-periodic-flooding-time/>
                        </policy>
                    </mpls-cmds-holder>
                </mpls>
            </router>
```

Parameters

policy
> Specifies the MPLS policy.

rsvp-periodic-flooding-tim
> Specifies the periodic flooding time.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp/reliable-messaging/rapid-retry-limit

Configures the maximum number of retries for an unacknowledged message.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <rsvp>
                            <g-reliable-messaging>
                                <rapid-retry-limit/>
                            </g-reliable-messaging>
                        </rsvp>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

rsvp

> Specifies the MPLS Resource Reservation Protocol (RSVP).

g-reliable-messaging

> Specifies the group reliable messaging.

bundle-message

> Specifies the bundle message.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp/reliable-messaging/rapid-retrans-interval

Configures an interval for an unacknowledged message to be resent.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <rsvp>
                            <g-reliable-messaging>
                                <rapid-retrans-interval/>
                            </g-reliable-messaging>
                        </rsvp>
                    </mpls-cmds-holder>
                </mpls>
            </router>
```

Parameters

rsvp

Specifies the MPLS Resource Reservation Protocol (RSVP).

g-reliable-messaging

Specifies group reliable messaging.

rapid-retrans-interval

Specifies interval for rapid retransmission.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp/reliable-messaging/rapid-retrans-decay

Percentage increase in the rapid retransmission interval for each consecutive unacknowledged RSVP message.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <rsvp>
                            <g-reliable-messaging>
                                <rapid-retrans-decay/>
                            </g-reliable-messaging>
                        </rsvp>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

rsvp

Specifies the MPLS Resource Reservation Protocol (RSVP).

g-reliable-messaging

Specifies group reliable messaging.

rapid-retrans-decay

Specifies rapid retransmission decay.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp/refresh-reduction/bundle-message/bundle-send-delay

Configure the bundle send delay value.

bundle-send-delay

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <rsvp>
                            <g-refresh-reduction>
                                <bundle-message>
                                    <bundle-send-delay/>
                                </bundle-message>
                            </g-refresh-reduction>
                        </rsvp>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

rsvp
> Specifies the MPLS Resource Reservation Protocol (RSVP).

g-refresh-reduction
> Specifies the group refresh reduction value.

bundle-message
> Specifies the bundle message.

bundle-send-delay
> Specifies the bundle send delay.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp/refresh-multiple

Configures the MPLS RSVP refresh multiple.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <rsvp>
                            <refresh-multiple/>
                        </rsvp>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

rsvp

Specifies the MPLS Resource Reservation Protocol (RSVP).

refresh-muliple

Specifies refresh multiple.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp/refresh-interval

Configures the MPLS RSVP refresh interval.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <rsvp>
                            <refresh-interval/>
                        </rsvp>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

rsvp

Specifies the MPLS Resource Reservation Protocol (RSVP).

refresh-interval

Specifies the refresh interval.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp/g-rsvp-backup-bw-guarantee

Sets up a backup path requesting bandwidth.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <rsvp>
                            <g-rsvp-backup-bw-guarantee/>
                        </rsvp>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

rsvp

　　　　Specifies the MPLS Resource Reservation Protocol (RSVP).

g-rsvp-backup-bw-guarantee

　　　　Specifies bandwidth gurantee for the group RSVP backup.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp/global-rsvp-hello-acknowledgements

Acknowledges the RSVP hellos on interfaces supporting RSVP hello and not having RSVP sessions.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <rsvp>
                            <global-rsvp-hello-acknowledgements/>
                        </rsvp>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

rsvp

Specifies the MPLS Resource Reservation Protocol (RSVP).

global-rsvp-hello-acknowledgements

Specifies global RSVP hello acknowledgements.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp/global-rsvp-hello/tolerance

Configures the number of unacknowledged RSVP hello requests before timeout.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <rsvp>
                            <global-rsvp-hello>
                                <global-rsvp-hello-tolerance/>
                            </global-rsvp-hello>
                        </rsvp>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

rsvp

> Specifies the MPLS Resource Reservation Protocol (RSVP).

global-rsvp-hello

> Specifies the global RSVP hello.

global-rsvp-hello-tolerance

> Specifies the tolerance value for global RSVP hello.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp/global-rsvp-hello

Configures the interval between two RSVP hello requests.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <rsvp>
                            <global-rsvp-hello>
                                <global-rsvp-hello-interval/>
                            </global-rsvp-hello>
                        </rsvp>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

rsvp

> Specifies the MPLS Resource Reservation Protocol (RSVP).

global-rsvp-hello

> Specifies global RSVP hello

global-rsvp-hello-interval

> Specifies the interval for global RSVP hello.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

router/mpls/rsvp/refresh-reduction/summary-refresh

Configures the refresh reduction summary refresh feature.

Usage

```
<mpls-config xmlns="urn:brocade.com:mgmt:brocade-mpls">
            <router>
                <mpls>
                    <mpls-cmds-holder>
                        <rsvp>
                            <g-refresh-reduction>
                                <summary-refresh/>
                            </g-refresh-reduction>
                        </rsvp>
                    </mpls-cmds-holder>
                </mpls>
            </router>
        </mpls-config>
```

Parameters

rsvp

    Specifies the MPLS Resource Reservation Protocol (RSVP).

summary-refresh

    Specifies summary refresh.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

qos-mpls

Configures, retrieves, and modifies MPLS Quality of Service (QoS).

Usage

```
<qos-mpls xmlns="urn:brocade.com:mgmt:brocade-qos-mpls">
    <map>
        <exp-traffic-class>
            <exp-traffic-class-map-name>{req_val}</exp-traffic-class-map-name>
        </exp-traffic-class>
    </map>
</qos-mpls>
```

Parameters

map

Specifies the map.

exp-traffic-class

The EXP traffic class value. Valid values range from 0 through 7.

exp-traffic-class-map-name

The EXP traffic class map name.

History

Release version	History
16r.1.01	This call was introduced.

sflow/agent-address

Configures the sFlow agent-ID address..

Usage

```
<sflow xmlns="urn:brocade.com:mgmt:brocade-sflow">
          <agent-address>
               <agent-interface-name/>
          </agent-address>
     </sflow>
```

Parameters

ipv4

Specifies an agent-address configuration for IPv4 collectors.

ipv6

Specifies an agent-address configuration for IPv6 collectors.

ethernet *slot/plot*

Specifies an Ethernet slot and port..

loopback *loopback-number*

Specifies a loopback interface. Valid values range from 1 through 255.

management *slot*

Specifies a management interface.

ve *ve-inteface*

Specifies a virtual Ethernet (VE) interface. Valid values range from 1 through 4096.

History

Release version	History
17r.2.00	This NETCONF call was introduced.

sflow/collector

Configures sFlow collector.

Usage

```
<sflow xmlns="urn:brocade.com:mgmt:brocade-sflow">
    <collector>
        <collector-ip-address>1.1.1.1</collector-ip-address>
        <collector-port-number>50</collector-port-number>
        <use-vrf>mgmt-vrf</use-vrf>
    </collector>
</sflow>
```

Parameters

collector-ip-address
> Specifies the IP address of the sFlow collector

collector-port-number
> Specifies the port number used by the sFlow collector. The value can range from 1 through 65535

use-vrf
> Specifies the VRF to use for sending data to the collector

History

Release version	History
7.0.0	This Netconf call was introduced.

Release version	History
16r.1.01	This NETCONF call was introduced.

sflow/enable

Enables sFlow globally.

Usage

```
<sflow xmlns="urn:brocade.com:mgmt:brocade-sflow">
    <enable></enable>
</sflow>
```

Parameters

enable

Enable sFlow globally

History

Release version	History
16r.1.01	This NETCONF call was introduced.

sflow/polling-interval

Configures interface counter polling interval.

Usage

```
<sflow xmlns="urn:brocade.com:mgmt:brocade-sflow">
    <polling-interval>25</polling-interval>
</sflow>
```

Parameters

polling-interval

Specifies polling interval value. The value can range from 1 through 65535. The default value is 20

History

Release version	History
16r.1.01	This NETCONF call was introduced.

sflow/sample-rate

Configures interface sampling rate.

Usage

```
<sflow xmlns="urn:brocade.com:mgmt:brocade-sflow">
    <sample-rate>32768</sample-rate>
</sflow>
```

Parameters

sample-rate

Specifies sampling rate value. The value can range from 2 through 16777215. The default value is 32768

History

Release version	History
16r.1.01	This NETCONF call was introduced.

sflow/source-ip

Configures source IP address to use.

Usage

```
<sflow xmlns="urn:brocade.com:mgmt:brocade-sflow">
    <source-ip>chassis-ip</source-ip>
</sflow>
```

Parameters

source-ip

Specifies the source IP address to use

chassis-ip

Uses chassis IP as source address

mm-ip

Uses local MM IP as source address

History

Release version	History
16r.1.01	This NETCONF call was introduced.

sflow-profile

Configures sflow profile sampling rate.

Usage

```
<sflow-profile xmlns="urn:brocade.com:mgmt:brocade-sflow">
    <profile-name>sflow1</profile-name>
    <profile-sampling-rate>4</profile-sampling-rate>
</sflow-profile>
```

Parameters

profile-name

> Specifies Sflow profile name

profile-sampling-rate

> Specifies Sflow sampling rate. The value can range from 2 through 8388608

History

Release version	History
16r.1.01	This NETCONF call was introduced.

system-monitor

Configures, modifies, or retrieves FRU threshold and alert setting.

Usage

```
<system-monitor xmlns="urn:brocade.com:mgmt:brocade-system-monitor">
    <fan>
        <alert>
            <action/>
        </alert>
    </fan>
</system-monitor>

<system-monitor xmlns="urn:brocade.com:mgmt:brocade-system-monitor">
    <power>
        <threshold/>
    </power>
</system-monitor>
```

Parameters

fan

Specifies the fan.

alert

The fan alert notification.

action

Specifies the action to be taken.

power

Specifies power supply.

thereshold

The power supoply threshold.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

system-monitor-mail/fru (email)

Configures e-mail address for FRU alerts.

Usage

```
<system-monitor-mail xmlns="urn:brocade.com:mgmt:brocade-system-monitor">
    <fru>
        <email-list>
            <email>abc@brocade.com</email>
        </email-list>
    </fru>
</system-monitor-mail>
```

Parameters

email

Specifies e-mail address for FRU alerts

History

Release version	History
16r.1.01	This NETCONF call was introduced.

system-monitor-mail/fru/enable

Enables FRU e-mail alerts.

Usage

```
<system-monitor-mail xmlns="urn:brocade.com:mgmt:brocade-system-monitor">
    <fru>
        <enable></enable>
    </fru>
</system-monitor-mail>
```

Parameters

enable

Enables FRU e-mail alerts

History

Release version	History
16r.1.01	This NETCONF call was introduced.

system-monitor-mail/interface (email)

Configures e-mail address for interface alerts.

Usage

```
<system-monitor-mail xmlns="urn:brocade.com:mgmt:brocade-system-monitor">
    <interface>
        <email-list>
            <email>abc@brocade.com</email>
        </email-list>
    </interface>
</system-monitor-mail>
```

Parameters

email

> Specifies e-mail address for interface alerts

History

Release version	History
16r.1.01	This NETCONF call was introduced.

system-monitor-mail/interface/enable

Enables interface e-mail alerts.

Usage

```
<system-monitor-mail xmlns="urn:brocade.com:mgmt:brocade-system-monitor">
    <interface>
        <enable></enable>
    </interface>
</system-monitor-mail>
```

Parameters

enable

Enables interface e-mail alerts

History

Release version	History
16r.1.01	This NETCONF call was introduced.

system-monitor-mail/relay

Configures relay IP mail settings.

Usage

```
<system-monitor-mail xmlns="urn:brocade.com:mgmt:brocade-system-monitor">
    <relay>
        <host-ip>1.1.1.1</host-ip>
        <domain-name>domain1</domain-name>
    </relay>
</system-monitor-mail>
```

Parameters

host-ip

        Specifies host IP address

domain-name

        Specifies domain server name

History

Release version	History
16r.1.01	This NETCONF call was introduced.

system-monitor-mail/security (email)

Configures e-mail address for security alerts.

Usage

```
<system-monitor-mail xmlns="urn:brocade.com:mgmt:brocade-system-monitor">
    <security>
        <email-list>
            <email>abc@brocade.com</email>
        </email-list>
    </security>
</system-monitor-mail>
```

Parameters

email

> Specifies e-mail address for security alerts

History

Release version	History
16r.1.01	This NETCONF call was introduced.

system-monitor-mail/security/enable

Enables security e-mail alerts.

Usage

```
<system-monitor-mail xmlns="urn:brocade.com:mgmt:brocade-system-monitor">
    <security>
        <enable></enable>
    </security>
</system-monitor-mail>
```

Parameters

enable

Enables security e-mail alerts

History

Release version	History
16r.1.01	This NETCONF call was introduced.

system-monitor-mail/sfp (email)

Configures e-mail address for SFP alerts.

Usage

```
<system-monitor-mail xmlns="urn:brocade.com:mgmt:brocade-system-monitor">
    <sfp>
        <email-list>
            <email>abc@brocade.com</email>
        </email-list>
    </sfp>
</system-monitor-mail>
```

Parameters

email

  Specifies e-mail address for SFP alerts

History

Release version	History
16r.1.01	This NETCONF call was introduced.

system-monitor-mail/sfp/enable

Enables sfp e-mail alerts.

Usage

```
<system-monitor-mail xmlns="urn:brocade.com:mgmt:brocade-system-monitor">
    <sfp>
        <enable></enable>
    </sfp>
</system-monitor-mail>
```

Parameters

enable

Enables sfp e-mail alerts

History

Release version	History
16r.1.01	This NETCONF call was introduced.

system-watermark

Defines system-related information.

Usage

```
<system-config xmlns="urn:brocade.com:mgmt:brocade-system-watermark">
          <interface>
               <utilization-watermark/>
          </interface>
```

Parameters

interface

       Specifies the protocol.

utilization-watermark

       Specifies the utilization watermark.

History

Release version	History
17r.1.00	This NETCONF call was introduced.

topology-group

Configures topology VLAN group for L2 protocols.

Usage

```
<topology-group xmlns="urn:brocade.com:mgmt:brocade-topology-group">
    <topology-group-id>{req_val}</topology-group-id>
    <member-vlan>
        <member-vlan-add/>
    </member-vlan>
</topology-group>>
```

Parameters

topology-group-id

> Specifies topology group ID.

member-valn

> Configures member VLANs.

master-vlan

> Configures master VLANs.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

uda-access-list

Creates a user-defined ACL (UDA).

Usage

```
<uda xmlns="urn:brocade.com:mgmt:brocade-uda-access-list">
    <access-list>
        <extended>
            <name>%req_val%</name>
            <uda-acl-ext>
                <seq>
                    <seq-id>%req_val%</seq-id>
                    <count/>
                </seq>
            </uda-acl-ext>
        </extended>
    </access-list>
```

Parameters

extended

Specifies an extended ACL. Extended ACLs contain rules that permit or deny traffic according to source and destination addresses, as well as other parameters. UDAs cannot be standard ACLs, which filter by source address only.

name

Specifies an ACL name unique among all ACLs (Layer 2, Layer 3, and UDAs). The name can be up to 63 characters in length, and must begin with an alphanumeric character. No special characters are allowed, except for the underscore and hyphen.

seq *seq-id*

Enables you to assign a sequence number to the rule. If you do not specify seq seq-value, the rule is added at the end of the list. Valid values range from 1 through 65535.

History

Release version	History
17r.2.00	This NETCONF call was introduced.

vlan/{vlan-name}/mac

Configures a MAC access group.

Usage

```
<interface-vlan xmlns="urn:brocade.com:mgmt:brocade-interface">
        <vlan>
            <name>{req_val}</name>
            <mac xmlns="urn:brocade.com:mgmt:brocade-mac-access-list">
                <access-group>
                    <mac-access-list>{req_val}</mac-access-list>
                    <mac-direction>{req_val}</mac-direction>
                    <traffic-type/>
                </access-group>
            </mac>
        </vlan>
    </interface-vlan>
```

Parameters

vlan

> Specifies vlan.

name

> Specifies the VLAN name.

access-group

> Specifies the MAC acess- group.

mac-access-list

> Specifies the mac-access list.

mac-direction

> Specifies the MAC direction.

traffic-type

> Specifies the traffic type.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

vlan/classifier/group

Configures VLAN classification group commands.

Usage

```
<vlan xmlns="urn:brocade.com:mgmt:brocade-vlan">
    <classifier>
        <group>
            <groupid>2</groupid>
            <oper>add</oper>
            <rule-name>rule</rule-name>
            <ruleid>2</ruleid>
        </group>
    </classifier>
</vlan>
```

Parameters

groupid

Specifies VLAN classifier group ID. The value can range from 1 through 16

oper

Specifies the operation

add

Add rule

delete

Delete rule

rule-name

Specifies VLAN classifier rule name

ruleid

Specifies VLAN classifier rule ID

History

Release version	History
7.0.0	This NETCONF call was introduced.

vlan/classifier/rule/mac

Configures VLAN classification rule commands.

Usage

```
<vlan xmlns="urn:brocade.com:mgmt:brocade-vlan">
    <classifier>
        <rule>
            <ruleid>2</ruleid>
            <mac>
                <address>0011.1122.2233</address>
            </mac>
        </rule>
    </classifier>
</vlan>
```

Parameters

ruleid

> Specifies the rule ID. The value can range from 1 through 256

address

> Specifies MAC address in HHHH.HHHH.HHHH format

History

Release version	History
7.0.0	This NETCONF call was introduced.

vlan/classifier/rule/proto

Configures the protocol to use for the VLAN classifier rule.

Usage

```
<vlan xmlns="urn:brocade.com:mgmt:brocade-vlan">
    <classifier>
        <rule>
            <ruleid>2</ruleid>
            <proto>
                <proto-val>arp</proto-val>
                <encap>ethv2</encap>
            </proto>
        </rule>
    </classifier>
</vlan>
```

Parameters

ruleid

> Specifies the VLAN identification rule. The values can range from 1 through 2556

proto-val

> Specifies the protocol to use for the VLAN classifier rule

> *hex_addr*
>
> > Specifies an Ethernet hexadecimal value. The value can range from 0x0000 through 0xffff

> **arp**
>
> > Specifies to use the Address Resolution Protocol

> **ip**
>
> > Specifies to use the Internet Protocol

> **ipv6**
>
> > Specifies to use the Internet Protocol version 6

encap

> Specifies to encapsulate the Ethernet frames sent for the VLAN classifier rule

> **ethv2**
>
> > Specifies to use the Ethernet version 2 encapsulated frames

> **nosnapllc**
>
> > Specifies to use the Ethernet version 2 non-SNA frames

> **snapllc**
>
> > Specifies to use the Ethernet version 2 with SNA frames

History

Release version	History
7.0.0	This NETCONF call was introduced.

vlan/dot1q

Configures dot1q parameters.

Usage

```
<vlan xmlns="urn:brocade.com:mgmt:brocade-vlan">
    <dot1q>
        <tag>
            <native></native>
        </tag>
    </dot1q>
</vlan>
```

Parameters

native

　　　　Enables tagged behavior for native-VLANs

History

Release version	History
16r.1.01	This NETCONF call was introduced.

vrf

Configures the virtual rounding and forwarding (VRF).

Usage

```
<vrf xmlns="urn:brocade.com:mgmt:brocade-vrf">
    <vrf-name>{req_val}</vrf-name>
</vrf>
```

Parameters

vrf-name

Specifies the VRF name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

vrf/{vrf-name}/address-family/ipv4/unicast

Configures the IPv4 address family configurations.

Usage

```
<vrf xmlns="urn:brocade.com:mgmt:brocade-vrf">
    <vrf-name>{req_val}</vrf-name>
    <address-family>
        <ip>
            <unicast/>
        </ip>
    </address-family>
</vrf>
```

Parameters

vrf-name

Specifies the VRF name.

address-family

Specifies address family.

ip

Specifies the IP address.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

vrf/{vrf-name}/address-family/ipv4/unicast/max-route

Configures IPv4 address family maximum route.

Usage

```
<vrf xmlns="urn:brocade.com:mgmt:brocade-vrf">
    <vrf-name>{req_val}</vrf-name>
    <address-family>
        <ip>
            <unicast>
                <max-route/>
            </unicast>
        </ip>
    </address-family>
</vrf>
```

Parameters

vrf-name

      Specifies the VRF name.

address-family

      Specifies address family.

ip

      Specifies the IP address.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

vrf/{vrf-name}/address-family/ipv6/unicast

Configures the IPv6 address family configurations.

Usage

```
<vrf xmlns="urn:brocade.com:mgmt:brocade-vrf">
    <vrf-name>{req_val}</vrf-name>
    <address-family>
        <ipv6>
            <unicast/>
        </ipv6>
    </address-family>
</vrf>
```

Parameters

vrf-name
> Specifies the VRF name.

address-family
> Specifies address family.

ipv6
> Specifies the IP address.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

vrf/{vrf-name}/address-family/ipv6/unicast/max-route

Configures IPv6 address family maximum route.

Usage

```
<vrf xmlns="urn:brocade.com:mgmt:brocade-vrf">
    <vrf-name>{req_val}</vrf-name>
    <address-family>
        <ipv6>
            <unicast>
                <max-route/>
            </unicast>
        </ipv6>
    </address-family>
</vrf>
```

Parameters

vrf-name

>   Specifies the VRF name.

address-family

>   Specifies address family.

ipv6

>   Specifies the IP address.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

vrf/{vrf-name}/ip/router-id

Configures the IP route details..

Usage

```
<vrf xmlns="urn:brocade.com:mgmt:brocade-vrf">
    <vrf-name>{req_val}</vrf-name>
    <ip>
        <vrf-router-id/>
    </ip>
</vrf>
```

Parameters

vrf-name

        Specifies the VRF name.

vrf-router-id

        Specifies the VRF router ID..

History

Release version	History
16r.1.01	This NETCONF call was introduced.

vxlan-visibility

Configures an overlay transit.

Usage

```
<overlay xmlns="urn:brocade.com:mgmt:brocade-vxlan-visibility>
    <access-list>
        <type>
            <vxlan/>
        </type>
    </access-list>
</overlay>
```

Parameters

access-list

Specifies the access list.

type

Specifies the VXLAN type: extended or standard.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

bna-config-cmd

Copies configuration data to and from the system.

Usage

```
<rpc xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="212">
    <bna-config-cmd xmlns="urn:brocade.com:mgmt:brocade-ras">
        <src>default-config</src>
        <dest>startup-config</dest>
    </bna-config-cmd>
</rpc>

<rpc-reply message-id="212" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <session-id xmlns="urn:brocade.com:mgmt:brocade-ras">5</session-id>
    <status xmlns="urn:brocade.com:mgmt:brocade-ras">in-progress</status>
</rpc-reply>
```

Parameters

session-id

> This id is used along with bna-config-cmd-status API to get the status of this operation (inprogress/complete).

status

> Displays the status of this operation (inprogress/complete).

History

Release version	History
16r.1.01	This NETCONF call was introduced.

clear-mpls-ldp-statistics

Clears the MPLS LDP control plane statistics.

Usage

```
<clear-mpls-ldp-statistics xmlns="""urn:brocade.com:mgmt:brocade-mpls"""/>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.

clear-mpls-lsp

Resets a tunnel and enables it back.

Usage

```
<clear-mpls-lsp xmlns=""urn:brocade.com:mgmt:brocade-mpls"">
      <mpls-clear-lsp-name-in>lspto</mpls-clear-lsp-name-in>
</clear-mpls-lsp>
```

Parameters

mpls-clear-lsp-name-in
> Specifies the LSP name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

clear-mpls-rsvp-statistics

Clears the MPLS RSVP control plane statistics.

Usage

```
<clear-mpls-rsvp-statistics xmlns=""urn:brocade.com:mgmt:brocade-mpls""/>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.

clear-mpls-rsvp-statistics-neighbor-address

Clears an RSVP neighbor.

Usage

```
<clear-mpls-rsvp-statistics-neighbor xmlns=""urn:brocade.com:mgmt:brocade-mpls"">
    <clear-mpls-rsvp-statistics-neighbor-address>29.19.1.19</clear-mpls-rsvp-statistics-neighbor-address>
</clear-mpls-rsvp-statistics-neighbor>
```

Parameters

clear-mpls-rsvp-statistics-neighbor-address
> Specifies the RSVP neighbor with the specific IP address.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

clear-mpls-rsvp-statistics-neighbor-all

Clears all RSVP neighbors.

Usage

```
<clear-mpls-rsvp-statistics-neighbor xmlns=""urn:brocade.com:mgmt:brocade-mpls"">
    <clear-mpls-rsvp-statistics-neighbor-all>true</clear-mpls-rsvp-statistics-neighbor-all>
</clear-mpls-rsvp-statistics-neighbor>
```

Parameters

clear-mpls-rsvp-statistics-neighbor-all

> Clears all MPLS RSVP neighbors.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

dad-status

Displays the current status of firmware download.

Usage

```
<dad-status></dad-status>
```

```
<rpc-reply message-id="1" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <dad-status xmlns="urn:brocade.com:mgmt:brocade-firmware">
        <dad-status-entries>
            <index>1</index>
            <date-and-time-info>Fri Nov 25 21:01:12 GMT 2016</date-and-time-info>
            <message>DHCP Auto-deployment enabled.</message>
        </dad-status-entries>
    </dad-status>
</rpc-reply>
```

Parameters

index

Displays the Index number

date-and-time-info

Displays the Date and time information

message

Displays the status message

History

Release version	History
16r.1.01	This NETCONF call was introduced.

fwdl-status

Returns the status of the firmware download operation.

Usage

```
<fwdl-status></fwdl-status>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="71">
    <fwdl-state xmlns="urn:brocade.com:mgmt:brocade-firmware">completed</fwdl-state>
    <number-of-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">24</number-of-entries>
    <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
        <index>1</index>
        <blade-name>SW/0</blade-name>
        <message-id>0</message-id>
        <date-and-time-info>2016-11-29/01:20:20</date-and-time-info>
        <message>Firmware install begins.</message>
    </fwdl-entries>
    <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
        <index>2</index>
        <blade-name>SW/0</blade-name>
        <message-id>0</message-id>
        <date-and-time-info>2016-11-29/01:23:25</date-and-time-info>
        <message>Firmware install ends.</message>
    </fwdl-entries>
    <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
        <index>3</index>
        <blade-name>SW/1</blade-name>
        <message-id>0</message-id>
        <date-and-time-info>2016-11-29/01:23:25</date-and-time-info>
        <message>Firmware install begins.</message>
    </fwdl-entries>
    <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
        <index>4</index>
        <blade-name>SW/1</blade-name>
        <message-id>0</message-id>
        <date-and-time-info>2016-11-29/01:26:27</date-and-time-info>
        <message>Firmware install ends.</message>
    </fwdl-entries>
    <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
        <index>5</index>
        <blade-name>SW/0</blade-name>
        <message-id>0</message-id>
        <date-and-time-info>2016-11-29/01:26:28</date-and-time-info>
        <message>Firmware starts to swap.</message>
    </fwdl-entries>
    <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
        <index>6</index>
        <blade-name>SW/1</blade-name>
        <message-id>0</message-id>
        <date-and-time-info>2016-11-29/01:26:28</date-and-time-info>
        <message>Firmware starts to swap.</message>
    </fwdl-entries>
    <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
        <index>7</index>
        <blade-name>SW/1</blade-name>
        <message-id>0</message-id>
        <date-and-time-info>2016-11-29/01:26:34</date-and-time-info>
        <message>Firmware is swapped.</message>
    </fwdl-entries>
    <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
        <index>8</index>
        <blade-name>SW/0</blade-name>
        <message-id>0</message-id>
        <date-and-time-info>2016-11-29/01:26:36</date-and-time-info>
        <message>Firmware is swapped.</message>
    </fwdl-entries>
```

```
<fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
   <index>9</index>
   <blade-name>SW/0</blade-name>
   <message-id>0</message-id>
   <date-and-time-info>2016-11-29/01:26:36</date-and-time-info>
   <message>Firmware is downloaded successfully.</message>
</fwdl-entries>
<fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
   <index>10</index>
   <blade-name>SW/1</blade-name>
   <message-id>0</message-id>
   <date-and-time-info>2016-11-29/01:26:37</date-and-time-info>
   <message>Firmware is downloaded successfully.</message>
</fwdl-entries>
<fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
   <index>11</index>
   <blade-name>SW/1</blade-name>
   <message-id>0</message-id>
   <date-and-time-info>2016-11-29/01:34:17</date-and-time-info>
   <message>The DB/filesystem starts shutting down.</message>
</fwdl-entries>
<fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
   <index>12</index>
   <blade-name>SW/0</blade-name>
   <message-id>0</message-id>
   <date-and-time-info>2016-11-29/01:34:17</date-and-time-info>
   <message>The DB/filesystem starts shutting down.</message>
</fwdl-entries>
<fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
   <index>13</index>
   <blade-name>SW/1</blade-name>
   <message-id>0</message-id>
   <date-and-time-info>2016-11-29/01:34:35</date-and-time-info>
   <message>The DB/filesystem has been shut down.</message>
</fwdl-entries>
<fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
   <index>14</index>
   <blade-name>SW/0</blade-name>
   <message-id>0</message-id>
   <date-and-time-info>2016-11-29/01:34:37</date-and-time-info>
   <message>The DB/filesystem has been shut down.</message>
</fwdl-entries>
<fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
   <index>15</index>
   <blade-name>SW/1</blade-name>
   <message-id>0</message-id>
   <date-and-time-info>2016-11-29/01:34:38</date-and-time-info>
   <message>The blade begins to reboot.</message>
</fwdl-entries>
<fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
   <index>16</index>
   <blade-name>SW/0</blade-name>
   <message-id>0</message-id>
   <date-and-time-info>2016-11-29/01:34:38</date-and-time-info>
   <message>The blade begins to reboot.</message>
</fwdl-entries>
<fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
   <index>17</index>
   <blade-name>SW/1</blade-name>
   <message-id>0</message-id>
   <date-and-time-info>2016-11-29/01:44:23</date-and-time-info>
   <message>The blade is rebooted.</message>
</fwdl-entries>
<fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
   <index>18</index>
   <blade-name>SW/1</blade-name>
   <message-id>0</message-id>
   <date-and-time-info>2016-11-29/01:44:23</date-and-time-info>
   <message>Firmware commit begins.</message>
</fwdl-entries>
<fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
   <index>19</index>
```

```
            <blade-name>SW/0</blade-name>
            <message-id>0</message-id>
            <date-and-time-info>2016-11-29/01:44:23</date-and-time-info>
            <message>The blade is rebooted.</message>
        </fwdl-entries>
        <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
            <index>20</index>
            <blade-name>SW/0</blade-name>
            <message-id>0</message-id>
            <date-and-time-info>2016-11-29/01:44:23</date-and-time-info>
            <message>Firmware commit begins.</message>
        </fwdl-entries>
        <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
            <index>21</index>
            <blade-name>SW/0</blade-name>
            <message-id>0</message-id>
            <date-and-time-info>2016-11-29/01:48:42</date-and-time-info>
            <message>Firmware commit ends.</message>
        </fwdl-entries>
        <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
            <index>22</index>
            <blade-name>SW/0</blade-name>
            <message-id>0</message-id>
            <date-and-time-info>2016-11-29/01:48:42</date-and-time-info>
            <message>Firmware is downloaded successfully.</message>
        </fwdl-entries>
        <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
            <index>23</index>
            <blade-name>SW/1</blade-name>
            <message-id>0</message-id>
            <date-and-time-info>2016-11-29/01:48:51</date-and-time-info>
            <message>Firmware commit ends.</message>
        </fwdl-entries>
        <fwdl-entries xmlns="urn:brocade.com:mgmt:brocade-firmware">
            <index>24</index>
            <blade-name>SW/1</blade-name>
            <message-id>0</message-id>
            <date-and-time-info>2016-11-29/01:48:51</date-and-time-info>
            <message>Firmware is downloaded successfully.</message>
        </fwdl-entries>
    </rpc-reply>
```

Parameters

fwdl-state

Specifies the firmware download state.

number-of-entries

Specifies the number of status entries.

index

Specifies the sequence number for the message.

blade-name

Specifies the name of the blade.

message-id

Specifies the message indentifier.

date-and-time-info

Specifies the date and time of the message. The format is YYYY-MM-DD/HH:MM:SS.SSSS.

message

Displays the textual description of the status.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-arp

Retrieves the ARP cache information.

Usage

```
<get-arp xmlns="urn:brocade.com:mgmt:brocade-arp"></get-arp>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="1">
    <arp-entry>
        <ip-address>20.0.0.122</ip-address>
        <mac-address>0005.3379.407a</mac-address>
        <interface-type>unknown</interface-type>
        <interface-name></interface-name>
        <is-resolved>true</is-resolved>
        <age>03:16:05</age>
        <entry-type>dynamic</entry-type>
    </arp-entry>
</rpc-reply>
```

Parameters

ip-address

>   Displays the IP address of the ARP entry.

mac-address

>   Displays the MAC address of the ARP entry.

interface-type

>   Displays the interface type.

interface-name

>   Displays the interface name.

is-resolved

>   Indicates whether the ARP entry is resolved or not.

age

>   Displays the age of the ARP entry.

entry-type

>   Displays the type of the ARP entry.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-contained-in-ID

Retrieves enclosure related information on embedded platforms.

Usage

```
<get-contained-in-ID xmlns="urn:brocade.com:mgmt:brocade-entity"></get-contained-in-ID>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="1">
    <contained-in-ID>Bay 7</contained-in-ID>
</rpc-reply>
```

Parameters

contained-in-ID
> Displays present slot ID of switch.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-interface-detail

Returns operational details of all the possible interfaces of the managed entity. Use this RPC to discover basic characteristics of all the interfaces in the system. Each sublayer below the internetwork layer of a network interface is considered to be an interface.

Usage

```
<get-interface-detail></get-interface-detail>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="67">
    <interface xmlns="urn:brocade.com:mgmt:brocade-interface-ext">
        <interface-type>ethernet</interface-type>
        <interface-name>2/4</interface-name>
        <port-role>edge</port-role>
        <port-mode>unknown</port-mode>
        <if-name>ethernet 2/4</if-name>
        <if-state>up</if-state>
        <line-protocol-state>down</line-protocol-state>
        <line-protocol-state-info> (link protocol down)</line-protocol-state-info>
        <hardware-type>ethernet</hardware-type>
        <current-hardware-address>50:eb:1a:17:40:28</current-hardware-address>
        <logical-hardware-address>50:eb:1a:17:40:28</logical-hardware-address>
        <ifindex>8791662784</ifindex>
        <mtu>2500</mtu>
        <actual-line-speed>nil</actual-line-speed>
        <configured-line-speed>auto</configured-line-speed>
        <line-duplex-state>full</line-duplex-state>
        <flow-control></flow-control>
        <queuing-strategy>fifo</queuing-strategy>
        <ifHCInOctets>0</ifHCInOctets>
        <ifHCInUcastPkts>0</ifHCInUcastPkts>
        <ifHCInMulticastPkts>0</ifHCInMulticastPkts>
        <ifHCInBroadcastPkts>0</ifHCInBroadcastPkts>
        <ifHCInErrors>0</ifHCInErrors>
        <ifHCOutOctets>0</ifHCOutOctets>
        <ifHCOutUcastPkts>0</ifHCOutUcastPkts>
        <ifHCOutMulticastPkts>0</ifHCOutMulticastPkts>
        <ifHCOutBroadcastPkts>0</ifHCOutBroadcastPkts>
        <ifHCOutErrors>0</ifHCOutErrors>
    </interface>
    <interface xmlns="urn:brocade.com:mgmt:brocade-interface-ext">
        <interface-type>ethernet</interface-type>
        <interface-name>2/3</interface-name>
        <port-role>isl</port-role>
        <port-mode>unknown</port-mode>
        <if-name>ethernet 2/3</if-name>
        <if-state>up</if-state>
        <line-protocol-state>up</line-protocol-state>
        <line-protocol-state-info> (connected)</line-protocol-state-info>
        <hardware-type>ethernet</hardware-type>
        <current-hardware-address>50:eb:1a:17:3f:f8</current-hardware-address>
        <logical-hardware-address>50:eb:1a:17:3f:f8</logical-hardware-address>
        <media-type>sfp</media-type>
        <wavelength>1310</wavelength>
        <ifindex>8791269376</ifindex>
        <mtu>9216</mtu>
        <actual-line-speed>10Gbps</actual-line-speed>
        <configured-line-speed>auto</configured-line-speed>
        <line-duplex-state>full</line-duplex-state>
        <flow-control></flow-control>
        <queuing-strategy>fifo</queuing-strategy>
        <ifHCInOctets>303455437</ifHCInOctets>
        <ifHCInUcastPkts>301429</ifHCInUcastPkts>
        <ifHCInMulticastPkts>79743</ifHCInMulticastPkts>
        <ifHCInBroadcastPkts>0</ifHCInBroadcastPkts>
```

```
            <ifHCInErrors>0</ifHCInErrors>
            <ifHCOutOctets>300765428</ifHCOutOctets>
            <ifHCOutUcastPkts>301347</ifHCOutUcastPkts>
            <ifHCOutMulticastPkts>56906</ifHCOutMulticastPkts>
            <ifHCOutBroadcastPkts>0</ifHCOutBroadcastPkts>
            <ifHCOutErrors>0</ifHCOutErrors>
        </interface>
        <interface xmlns="urn:brocade.com:mgmt:brocade-interface-ext">
            <interface-type>ethernet</interface-type>
            <interface-name>2/4</interface-name>
            <port-role>edge</port-role>
            <port-mode>unknown</port-mode>
            <if-name>ethernet 2/4</if-name>
            <if-state>up</if-state>
            <line-protocol-state>down</line-protocol-state>
            <line-protocol-state-info> (link protocol down)</line-protocol-state-info>
            <hardware-type>ethernet</hardware-type>
            <current-hardware-address>50:eb:1a:17:40:1d</current-hardware-address>
            <logical-hardware-address>50:eb:1a:17:40:1d</logical-hardware-address>
            <ifindex>8791572480</ifindex>
            <mtu>2500</mtu>
            <actual-line-speed>nil</actual-line-speed>
            <configured-line-speed>auto</configured-line-speed>
            <line-duplex-state>full</line-duplex-state>
            <flow-control></flow-control>
            <queuing-strategy>fifo</queuing-strategy>
            <ifHCInOctets>0</ifHCInOctets>
            <ifHCInUcastPkts>0</ifHCInUcastPkts>
            <ifHCInMulticastPkts>0</ifHCInMulticastPkts>
            <ifHCInBroadcastPkts>0</ifHCInBroadcastPkts>
            <ifHCInErrors>0</ifHCInErrors>
            <ifHCOutOctets>0</ifHCOutOctets>
            <ifHCOutUcastPkts>0</ifHCOutUcastPkts>
            <ifHCOutMulticastPkts>0</ifHCOutMulticastPkts>
            <ifHCOutBroadcastPkts>0</ifHCOutBroadcastPkts>
            <ifHCOutErrors>0</ifHCOutErrors>
        </interface>
        <interface xmlns="urn:brocade.com:mgmt:brocade-interface-ext">
            <interface-type>l2vlan</interface-type>
            <interface-name>1</interface-name>
            <if-name>Vlan 1</if-name>
            <ifindex>1207959553</ifindex>
            <queuing-strategy>fifo</queuing-strategy>
        </interface>
        <interface xmlns="urn:brocade.com:mgmt:brocade-interface-ext">
            <interface-type>l2vlan</interface-type>
            <interface-name>10</interface-name>
            <if-name>Vlan 10</if-name>
            <current-hardware-address>00:27:f8:fd:00:03</current-hardware-address>
            <logical-hardware-address>00:27:f8:fd:00:03</logical-hardware-address>
            <ifindex>1207959562</ifindex>
            <queuing-strategy>fifo</queuing-strategy>
        </interface>
      <has-more xmlns="urn:brocade.com:mgmt:brocade-interface-ext">false</has-more>
  </rpc-reply>
```

Parameters

interface-type

Specifies the interface type.

interface-name

Specifies the nterface name.

port-role

Displays the current role that the particular interface is playing. This is applicable only for physical interfaces.

port-mode

> Displays the operational mode of the particular interface. This is applicable only for physical interfaces or port-channel interfaces.

if-name

> Displays the interface display name as in MIB-II's ifTable. However interface-name and interface-type values of this instance forms fully qualified name for this interface.

if-state

> Displays the current operational state of this interface.

line-protocol-state

> Displays the 'Line protocol' state of the interface.

line-protocol-state-info

> Displays thwe reason for the current line protocol state of the interface.

hardware-type

> Dispalys the hardware type

current-hardware-address

> Displays the address of the interface at its protocol sub-layer.

logical-hardware-address

> Displays the address of the interface at its protocol sub-layer.

ifindex

> Displays a unique value, greater than zero, for each interface.

mtu

> Displays the IP MTU value of the interface.

actual-line-speed

> Displays the actual line speed of this interface.

configured-line-speed

> Displays the administratively configured line speed of the interface.

line-duplex-state

> Displays the 'Line duplex state' of the interface.

flow-control

> Displays the 'Flow control' for the interface.

queuing-strategy

> Displays the 'Queuing strategy' for the interface.

ifHCInOctets

> Displays the total number of octets received on the interface, including framing characters.

ifHCInUcastPkts

> Displays the The number of packets, delivered by this sub-layer to a higher (sub-)layer, which were not addressed to a multicast or broadcast address at this sub-layer.

ifHCInMulticastPkts

> Displays The number of packets, delivered by this sub-layer to a higher (sub-)layer, which were addressed to a multicast address at the sub-layer. For a MAC layer protocol, this includes both Group and Functional addresses.

ifHCInBroadcastPkts

> Displays the The number of packets, delivered by the sub-layer to a higher (sub-)layer, which were addressed to a broadcast address at the sub-layer.

ifHCInErrors

> For packet-oriented interfaces, the number of inbound packets that contained errors preventing them from being deliverable to a higher-layer protocol. For character-oriented or fixed-length interfaces, the number of inbound transmission units that contained errors preventing them from being deliverable to a higher-layer protocol.

ifHCOutOctets

> Displays the total number of octets transmitted out of the interface, including framing characters

ifHCOutUcastPkts

> Displays the total number of packets that higher-level protocols requested be transmitted, and which were not addressed to a multicast or broadcast address at the sub-layer, including those that were discarded or not sent.

ifHCOutMulticastPkts

> Dispalys the total number of packets that higher-level protocols requested be transmitted, and which were addressed to a multicast address at this sub-layer, including those that were discarded or not sent. For a MAC layer protocol, this includes both Group and Functional addresses.

ifHCOutBroadcastPkts

> Displays the total number of packets that higher-level protocols requested be transmitted, and which were addressed to a broadcast address at this sub-layer, including those that were discarded or not sent.

ifHCOutErrors

> For packet-oriented interfaces, the number of outbound packets that could not be transmitted because of errors. For character-oriented or fixed-length interfaces, the number of outbound transmission units that could not be transmitted because of errors.

ip-mtu

> Displays the IP MTU value of this interface.

line-protocol-exception-info

> Displays the 'Exception information' of line protocol.

media-type

> Displays the media type.

wavelength

> Displays the wavelength of pluggable media.

if-description

> Displays the textual string containing information about the interface.

queuing-strategy

> Displays the 'Queuing strategy' for this interface.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-interface-switchport

Returns switch-port or Layer 2 characteristics of all the interfaces in the managed device.

Usage

```
<get-interface-switchport></get-interface-switchport>


<rpc-reply message-id="303" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <switchport xmlns="urn:brocade.com:mgmt:brocade-brocade-interface-ext">
        <interface-name>2/1</interface-name>
        <interface-type>ethernet</interface-type>
        <mode>access</mode>
        <ingress-filter-enabled>true</ingress-filter-enabled>
        <acceptable-frame-type>admit-all</acceptable-frame-type>
        <default-vlan>1</default-vlan>
        <active-vlans>
            <vlanid>1</vlanid>
        </active-vlans>
    </switchport>
</rpc-reply>
```

Parameters

interface-name
> Specifies the interface value.

interface-type
> Displays the type of the interface.

mode
> Displays the mode of the port-channel.

ingress-filter-enabled
> Indicates if the 'Ingress filtering' is enabled for the interface.

acceptable-frame-type
> The switch-port ingress Frame admission policy - whether only tagged Frames are allowed or all.

default-vlan
> Displays 'default vlan' identifier value for this switch-port.

vlanid
> Displays the list of active VLAN identifiers.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-ip-interface

Returns brief details of all interfaces, loopback and VE interface details of particular managed entity.

Usage

```
<get-ip-interface></get-ip-interface>

<rpc-reply message-id="307" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <interface xmlns="urn:brocade.com:mgmt:brocade-interface">
        <interface-type>ethernet</interface-type>
        <interface-name>2/4</interface-name>
        <if-name>ethernet 2/4</if-name>
        <if-state>up</if-state>
        <line-protocol-state>down</line-protocol-state>
        <ip-address>
            <ipv4>unassigned</ipv4>
        </ip-address>
    </interface>
</rpc-reply>
```

Parameters

interface-type

> Displays the network interface name in a VCS environment in the format: slot/port .

interface-name

> Displays the interface value.

if-name

> The interface display name as in MIB-II's ifTable. However interface-name and interface-type values of this instance forms fully qualified name for this interface.

if-state

> Displays the current operational state of the interface.

line-protocol-state

> Displays the 'Line protocol' state of the interface.

ipv4

> Displays the IP address in dotted decimal/Mask (A.B.C.D/M).

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-last-config-update-time

Returns the time stamp of the last configuration change done on the managed device.

Usage

```
<get-last-config-update-time></get-last-config-update-time>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="64">
    <last-config-update-time xmlns="urn:brocade.com:mgmt:brocade-vcs">1401804078</last-config-update-
time>
</rpc-reply>
```

Parameters

last-config-update-time
> Displays the time stamp of the last configuration change.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-lldp-neighbor-detail

Returns the details of all the neighboring interfaces of the managed entity.

Usage

```
<get-lldp-neighbor-detail></get-lldp-neighbor-detail>


<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="4">
    <lldp-neighbor-detail xmlns="urn:brocade.com:mgmt:brocade-lldp-ext">
        <local-interface-name>ethernet 1/3</local-interface-name>
        <local-interface-ifindex>203448320</local-interface-ifindex>
        <local-interface-mac>0005.3379.6de0</local-interface-mac>
        <remote-interface-name>port1</remote-interface-name>
        <remote-interface-mac>0005.3348.3043</remote-interface-mac>
        <dead-interval>120</dead-interval>
        <remaining-life>114</remaining-life>
        <remote-chassis-id>0005.3348.3043</remote-chassis-id>
        <lldp-pdu-transmitted>16159</lldp-pdu-transmitted>
        <lldp-pdu-received>15846</lldp-pdu-received>
    </lldp-neighbor-detail>
    <has-more xmlns="urn:brocade.com:mgmt:brocade-lldp-ext">false</has-more>
</rpc-reply>
```

Parameters

local-interface-name
> Indicates the local interface display name.

local-interface-ifindex
> Indicates the local interface index.

local-interface-mac
> Indicates the local interface MAC address.

remote-interface-name
> Indicates the remote interface display name .

remote-interface-mac
> Indicates the remote interface MAC address.

dead-interval
> Indicates the dead interval.

remaining-life
> Indicates the remaining life period.

remote-chassis-id
> Indicates the remote chassis ID.

lldp-pdu-transmitted
> Number of LLDP PDUs transmitted from the interface.

lldp-pdu-received
> Number of LLDP PDUs received by the interface.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-mac-acl-for-intf

Returns information about the MAC ACL applied on the specified interfaces.

Usage

```
<get-mac-acl-for-intf></get-mac-acl-for-intf>


<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="2407">
    <get-mac-acl-for-intf xmlns="urn:brocade.com:mgmt:brocade-mac-access-list">
        <interface>
            <interface-type>l2vlan</interface-type>
            <interface-name>50</interface-name>
            <ingress-policy>
                <policy-name>test_02</policy-name>
            </ingress-policy>
            <egress-policy>
                <policy-name>test_01</egress-policy>
            </egress-policy>
        </interface>
    </get-mac-acl-for-intf>
</rpc-reply>
```

Parameters

interface-type
> Displays the interface type.

interface-name
> Displays the interface name.

policy-name
> Displays the MAC ACL policy name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-mac-address-table

Returns the MAC address table for a given MAC address.

Usage

```
<get-mac-address-table> <forwarding-interface> <interface-type>ethernet</interface-type>
<interface-name>2/4</interface-name> </forwarding-interface> <mac-type>static</mac-type>
</get-mac-address-table>


<rpc-reply xmlns=""urn:ietf:params:xml:ns:netconf:base:
1.0""xmlns:nc=""urn:ietf:params:xml:ns:netconf:base:1.0"" message-id=""2"">
      <mac-address-table xmlns=""urn:brocade.com:mgmt:brocade-mac-address-table"">
      <vlanid>10</vlanid>
      <mac-address>00:11:11:11:44:44</mac-address>
      <mac-type>static</mac-type>
      <mac-state>active</mac-state>
      <forwarding-interface>
      <interface-type>ethernet</interface-type>
      <interface-name>2/4</interface-name>
      </forwarding-interface>
      </mac-address-table>
      <has-more xmlns=""urn:brocade.com:mgmt:brocade-mac-address-table"">false</has-more>
      </rpc-reply>

<get-mac-address-table>
      <last-mac-address-details>
      <last-mac-address>00:11:11:82:12:92</last-mac-address>
      <last-vlan-id>10</last-vlan-id>
      <last-mac-type>static</last-mac-type>
      </last-mac-address-details>
      <forwarding-interface-type>ethernet</forwarding-interface-type>
      <forwarding-interface-name>2/4</forwarding-interface-name>
    <mac-address-type>static</mac-address-type>
   </get-mac-address-table>

<rpc-reply xmlns=""urn:ietf:params:xml:ns:netconf:base:
1.0""xmlns:nc=""urn:ietf:params:xml:ns:netconf:base:1.0"" message-id=""2"">
      <mac-address-table xmlns=""urn:brocade.com:mgmt:brocade-mac-address-table"">
      <vlanid>10</vlanid>
      <mac-address>00:11:11:82:12:92</mac-address>
      <mac-type>static</mac-type>
      <mac-state>active</mac-state>
      <forwarding-interface>
      <interface-type>ethernet</interface-type>
      <interface-name>2/4</interface-name>
      </forwarding-interface>
      </mac-address-table>
      <has-more xmlns=""urn:brocade.com:mgmt:brocade-mac-address-table"">false</has-more>
      </rpc-reply>
```

Parameters

vlanid

   Displays the VLAN ID.

mac-address

   Displays the MAC address.

mac-type

   Displays the MAC type.

mac-state
    Displays the MAC state.

interface-type
    Displays the interface type.

interface-name
    Displays the interface name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-media-detail

Returns the media properties of all the interfaces of the managed entity.

Usage

```
<get-media-detail></get-media-detail>


<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="59">
    <interface xmlns="urn:brocade.com:mgmt:brocade-interface-ext">
        <interface-type>ethernet</interface-type>
        <interface-name>2/5</interface-name>
        <qsfpp>
            <speed>40Gbps</speed>
            <connector>lc</connector>
            <encoding>ieee-802-3ab</encoding>
            <vendor-name>BROCADE           </vendor-name>
            <vendor-oui>00:05:1e</vendor-oui>
            <vendor-pn>57-1000263-01    </vendor-pn>
            <vendor-rev>A </vendor-rev>
            <distance>long-dist</distance>
            <media-form-factor>unknown</media-form-factor>
            <wavelength>26020</wavelength>
            <serial-no>LDF113390001CBS </serial-no>
            <date-code>130928  </date-code>
            <temperature>31</temperature>
            <voltage>3305.7</voltage>
            <current>37.364</current>
            <tx-power>0.0</tx-power>
            <rx-power>2.7</rx-power>
        </qsfpp>
    </interface>
    <interface xmlns="urn:brocade.com:mgmt:brocade-interface-ext">
        <interface-type>ethernet</interface-type>
        <interface-name>2/5</interface-name>
        <sfp>
            <speed>10Gbps</speed>
            <connector>lc</connector>
            <encoding>unknown</encoding>
            <vendor-name>BROCADE</vendor-name>
            <vendor-oui>00:05:1e</vendor-oui>
            <vendor-pn>57-0000076-01</vendor-pn>
            <vendor-rev>A</vendor-rev>
            <distance>unknown</distance>
            <media-form-factor>unknown</media-form-factor>
            <wavelength>1310</wavelength>
            <serial-no>ADF21346000071B </serial-no>
            <date-code>131110</date-code>
            <temperature>36</temperature>
            <voltage>3292.0</voltage>
            <current>38.602</current>
            <tx-power>700.5</tx-power>
            <rx-power>741.6</rx-power>
        </sfp>
    </interface>
</rpc-reply>
```

Parameters

interface-type
> Displays the interface type.

interface-name

    Displays the interface name.

speed

    Specifies the speed.

connector

    Specifies the connector.

encoding

    Displays the type of encoding used to transmit the data on this interface.

vendor-name

    Displays the vendor of the interface.

vendor-oui

    Displays the vendor IEEE company ID.

vendor-pn

    Displays the vendor part number.

vendor-rev

    Displays the vendor revision level.

distance

    Displays the SFP distance.

media-form-factor

    Displays the media form factor.

wavelength

    Displays the wavelength of pluggable media.

serial-no

    Displays the serial number.

date-code

    Displays the vendor's manufactoring date code.

temperature

    Displays the module temperature (degrees C).

voltage

    Indicates the supply voltage (Volts).

current

    Displays the laser diode drive current (milliAmps).

tx-power

    Displays the transmitted optical power (microWatts).

rx-power

    Displays the received optical power (microWatts).

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-nameserver-detail

Retrieves the detailed information of the devices stored in the name server database.

Usage

```
<get-nameserver-detail xmlns=""urn:extreme.com:mgmt:extreme-nameserver""></get-nameserver-detail>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="1">
    <show-nameserver>
        <nameserver-portid>0d0000</nameserver-portid>
        <nameserver-portname>20:00:8C:7C:FF:21:C0:00</nameserver-portname>
        <nameserver-nodename>20:00:8C:7C:FF:21:C0:01</nameserver-nodename>
        <nameserver-cos>3</nameserver-cos>
        <nameserver-scr>0</nameserver-scr>
        <nameserver-fc4s>FCP </nameserver-fc4s>
        <nameserver-portsymb>[7] "13/0/52"</nameserver-portsymb>
        <nameserver-nodesymb>NULL</nameserver-nodesymb>
        <nameserver-fabric-portname>50:02:7F:8C:31:32:30:82</nameserver-fabric-portname>
        <nameserver-permanent-portname>20:00:8C:7C:FF:21:C0:00</nameserver-permanent-portname>
        <nameserver-devicetype>Physical Target</nameserver-devicetype>
        <nameserver-porttype>N</nameserver-porttype>
        <nameserver-index>130</nameserver-index>
        <nameserver-sharearea>Yes</nameserver-sharearea>
        <nameserver-redirect>No</nameserver-redirect>
        <nameserver-xlatedomain>No</nameserver-xlatedomain>
        <nameserver-connected-via-ag>No</nameserver-connected-via-ag>
        <nameserver-ag-base-device>No</nameserver-ag-base-device>
        <nameserver-real>No</nameserver-real>
        <nameserver-cascaded>No</nameserver-cascaded>
    </show-nameserver>
</rpc-reply>
```

Parameters

nameserver-portid
> Displays the list of all Nx_Ports registered in the name server database of this managed device.

nameserver-portname
> Displays the Port_Name (WWN) of this Nx_Port.

nameserver-nodename
> Displays the Node_Name (WWN) of this Nx_Port.

nameserver-cos
> Displays the Fibre Channel Class of service supported by the device.

nameserver-scr
> Displays the state change notifications that the device has registered for.

nameserver-fc4s
> Displays the Fibre Channel FC4 services supported by the device.

nameserver-portsymb
> Displays the user-defined name of this port.

nameserver-nodesymb
> Displays the user-defined name of the node of this port.

nameserver-fabric-portname
> Displays the Fabric port name (WWN) of this port.

nameserver-permanent-portname
> Displays the type and role of the device.

nameserver-devicetype
> Displays the type and role of the device.

nameserver-porttype
> Displays the Fibre Channel port type.

nameserver-index
> Displays the Port index number.

nameserver-sharearea
> Indicates whether or not the port utilizes the Extreme shared area method of fibre channel addressing.

nameserver-redirect
> Indicates whether or not the device is involved in Extreme frame redirection zoning.

nameserver-xlatedomain
> Indicates whether or not the device enters the fabric via a translate domain.

nameserver-connected-via-ag
> Indicates whether or not the device enters the fabric via access gateway.

nameserver-ag-base-device
> Indicates whether or not the device is a base access gateway device.

nameserver-real
> Indicates whether or not the device entered in the fabric via AG is a physical device.

nameserver-cascaded
> Indicates whether or not the device enters the fabric via a cascaded AG.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-netconf-client-capabilities

Returns the vendor information for all NETCONF clients.

Usage

```
<get-netconf-client-capabilities></get-netconf-client-capabilities>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="57">
    <session xmlns="urn:extreme.com:mgmt:extreme-netconf-ext">
        <session-id>30</session-id>
        <user-name>admin</user-name>
        <vendor>Extreme</vendor>
        <product>NOS Netconf Client</product>
        <version>0.8 beta</version>
        <identity>sgajaraj</identity>
        <af-type>IPV4</af-type>
        <host-ip>172.22.8.111</host-ip>
        <time>2014-06-04T11:00:35+00:00</time>
    </session>
</rpc-reply>
```

Parameters

session-id
> Displays the session ID of the NETCONF client session.

user-name
> Displays the login name of the user for the NETCONF client session.

vendor
> Displays the vendor name of the NETCONF client session.

product
> Displays the product name of the NETCONF client session.

version
> Displays the product version of the NETCONF client session.

identity
> Displays the identity of the NETCONF client session.

af-type
> Specifies the address family type.

host-ip
> Displays IP address of NETCONF client session.

time
> Displays the login time of NETCONF client session.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-port-channel-detail

Returns link aggregation control configuration parameters for all the port-channels in the system.

Usage

```
<get-port-channel-detail></get-port-channel-detail>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="1002">
    <get-port-channel-detail xmlns="urn:brocade.com:mgmt:brocade-lag">
        <lacp>
            <aggregator-id>27</aggregator-id>
            <aggregator-type>standard</aggregator-type>
            <isvlag>false</isvlag>
            <aggregator-mode>none</aggregator-mode>
            <admin-key>0027</admin-key>
            <oper-key>0027</oper-key>
            <actor-system-id>00-05-33-6f-18-18</actor-system-id>
            <partner-system-id>00-05-1e-cd-6e-9f</partner-system-id>
            <system-priority>32768</system-priority>
            <partner-oper-priority>32768</partner-oper-priority>
            <rx-link-count>4</rx-link-count>
            <tx-link-count>4</tx-link-count>
            <individual-agg>0</individial-agg>
            <ready-agg>1</ready-agg>
            <partner-oper-key>0027</partner-oper-key>
            <aggr-member>
                <interface-type>ethernet</interface-type>
                <interface-name>231/0/22</interface-name>
                <actor-port>0xE718160201</actor-port>
                <sync>1</sync>
            </aggr-member>
        </lacp>
        <has-more>true</has-more>
    </get-port-channel-detail>
</rpc-reply>
```

Parameters

aggregator-id

> Displays the aggregator ID.

aggregator-type

> Displays the aggregator type.

isvlag

> Specifies if agreegator is VLAG.

aggregator-mode

> Displays aggregator mode.

admin-key

> Displays the admin key.

oper-key

> Displays the opertional key.

actor-system-id

> Displays the actor system ID.

partner-system-id
>Displays the partner system ID.

system-priority
>Displays the system priority.

partner-oper-priority
>Displays the partner operational priority.

rx-link-count
>Displays the RX link counter.

tx-link-count
>Displays the TX link counter.

individual-agg
>Displays the Individual aggregator.

ready-agg
>Displays the Ready aggregator.

partner-oper-key
>Displays the Partner Opertional key.

interface-type
>Displays the interface type .

interface-name
>Displays the interface name.

actor-port
>Displays the actor port number.

sync
>Displays the sync information.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-stp-brief-info

Returns Spanning Tree Protocol (STP) information.

Usage

```
<get-stp-brief-info></get-stp-brief-info>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="2025">
    <get-stp-brief-info xmlns="urn:brocade.com:mgmt:brocade-xstp-ext">
        <spanning-tree-info>
            <stp-mode>STP</stp-mode>
            <stp>
                <route-bridge>
                    <priority>32768<priority>
                    <bridge-id>22<bridge-id>
                    <hello-time>2<hello-time>
                    <max-age>20</max-age>
                    <forward-delay>15</forward-delay>
                </route-bridge>
                <bridge>
                    <priority>32768</priority>
                        <hello-time>2<hello-time>
                    <max-age>20</max-age>
                    <forward-delay>15</forward-delay>
                    <transmit-hold-count>6</transit-hold-count>
                    <migrate-time>3</migrate-time>
                    <port>
                        <interface-type>ethernet</interface-type>
                        <interface-name>2/5</interface-name>
                        <spanningtree-enabled>true<spanningtree-enabled>
                        (output truncated)
        </spanning-tree-info>
        <has-more>true</has-more>
        <last-instance>
            <instance-id>91</instance-id>
        </last-instance>
    </get-stp-brief-info>
</rpc-reply>
```

Parameters

stp-mode

Displays the type of the Spanning Tree Protocol configured on the switch.

priority

Displays the Bridge priority.

hello-time

Displays the interval between two transmissions of BPDU packets sent by the Root Bridge to tell all other switches that it is indeed the Root Bridge (1 to 10 sec).

max-age

The Max Age may be set to ensure that old information does not endlessly circulate through redundant paths in the network, preventing the effective propagation of new information (6 to 40 sec).

forward-delay

Port on the Switch spends this time in the listening state while moving from the blocking state to the forwarding state (4 to 30 sec).

transmit-hold-count
> Displays the transmin hold count.

migrate-time
> Displays the migrate time.

interface-type
> Displays the interface type.

interface-name
> Displays the interface name.

spanningtree-enabled
> Displays if the spnanning tree is enabled.

instance-id
> Specifies the instance ID.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-system-uptime

Returns the time since the managed entity was last reinitialized.

Usage

```
<get-system-uptime></get-system-uptime>


<rpc-reply message-id="307" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
    <show-system-uptime xmlns="urn:brocade.com:mgmt:brocade-system">
        <days>0</days>
        <hours>5</hours>
        <minutes>53</minutes>
        <seconds>4</seconds>
    </show-system-uptime>
</rpc-reply>
```

Parameters

days

Displays the number of days the managed node is up since its last re-initialization

hours

Displays the number of hours the managed node is up since its last re-initialization

minutes

Displays the number of minutes the managed node is up since its last re-initialization

seconds

Displays the number of seconds the managed node is up since its last re-initialization

History

Release version	History
16r.1.01	This NETCONF call was introduced.

get-vlan-brief

Returns operational data for a given VLAN and enumeration of all the interfaces belonging to this VLAN.

Usage

```
<get-vlan-brief></get-vlan-brief>


<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="47">
    <configured-vlans-count xmlns="urn:brocade.com:mgmt:brocade-interface-ext">13</configured-vlans-
count>
    <provisioned-vlans-count xmlns="urn:brocade.com:mgmt:brocade-interface-ext">13</provisioned-vlans-
count>
    <unprovisioned-vlans-count xmlns="urn:brocade.com:mgmt:brocade-interface-ext">0</unprovisioned-
vlans-count>
    <vlan xmlns="urn:brocade.com:mgmt:brocade-interface-ext">
        <vlan-id>1</vlan-id>
        <vlan-type>static</vlan-type>
        <vlan-name>default</vlan-name>
        <vlan-state>members-down</vlan-state>
        <interface>
            <interface-type>unknown</interface-type>
            <interface-name></interface-name>
            <tag>tagged</tag>
            <classification>
                <classification-type>vni</classification-type>
                <classification-value>2</classification-value>
            </classification>
        </interface>
    </vlan>
    <last-vlan-id xmlns="urn:brocade.com:mgmt:brocade-interface-ext">200</last-vlan-id>
    <has-more xmlns="urn:brocade.com:mgmt:brocade-interface-ext">true</has-more>
</rpc-reply>
```

Parameters

configured-vlans-count

> Displays the number of VLANs configured.

provisioned-vlans-count

> Displays the number of VLANs provisioned.

unprovisioned-vlans-count

> Displays the number of VLANs unprovisioned.

vlan-id

> Displays the VLAN ID

vlan-type

> Displays the VLAN type

vlan-name

> Displays the administrative name of the VLAN

vlan-state

> Displays the operational state of the VLAN

interface-type

> Displays the interface type

interface-name
> Displays the interface name

tag
> Displays the state of the interface – untagged, tagged, or converged

classification-type
> Displays the type of classification

classification-value
> Displays the value of the VLAN classification

last-vlan-id
> Displays the last VLAN record that has been fetched

History

Release version	History
16r.1.01	This NETCONF call was introduced.

mpls-clear-all-ldp-sessions

Clears all LDP sessions.

Usage

```
<clear-mpls-ldp-neighbor xmlns=""urn:brocade.com:mgmt:brocade-mpls"">
    <mpls-clear-all-ldp-sessions>true</mpls-clear-all-ldp-sessions>
</clear-mpls-ldp-neighbor>
```

Parameters

mpls-clear-all-ldp-sessions
> Clears all LDP sessions.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

mpls-clear-one-ldp-sessions

Clears an LDP session.

Usage

```
<clear-mpls-ldp-neighbor xmlns=""urn:brocade.com:mgmt:brocade-mpls"">
    <mpls-clear-one-ldp-sessions>14.14.14.14</mpls-clear-one-ldp-sessions>
</clear-mpls-ldp-neighbor>
```

Parameters

mpls-clear-one-ldp-sessions

Clears an LDP session with a specific IP address.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

mpls-clear-statistics-type

Clears the MPLS statistics of a specific type.

Usage

```
<clear-mpls-statistics xmlns=""urn:brocade.com:mgmt:brocade-mpls"">
    <mpls-clear-statistics-type>3</mpls-clear-statistics-type>
    <tunnel-name>t2</tunnel-name>
</clear-mpls-statistics>
```

Parameters

mpls-clear-statistics-type
> Specifies the MPLS statistics type.

tunnel-name
> Specifies the tunnel name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

mpls-reopt-lsp

Directs the router to consider configuration changes made to an LSP and to optimize the LSP path based on those changes.

Usage

```
<mpls-reopt-lsp xmlns=""urn:brocade.com:mgmt:brocade-mpls"">
   <mpls-reoptimize-lsp-name-in>reopt1</mpls-reoptimize-lsp-name-in>
</mpls-reopt-lsp>
```

Parameters

mpls-reoptimize-lsp-name-in
> Specifies the LSP name.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

reload

Reloads the switch.

Usage

```
<reload xmlns=""urn:brocade.com:mgmt:brocade-ha""></reload>
```

History

Release version	History
16r.1.01	This NETCONF call was introduced.

set-http-application-url

Updates the HTTP application URL.

Usage

```
<set-http-application-url xmlns=""urn:brocade.com:mgmt:brocade-http-redirect"">
    <config-http-app-url>
        <url>www.google.com</url>
        <op-type>1</op-type>
    </config-http-app-url>
</set-http-application-url>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="1">
    <status-code>0</status-code>
    <status-string>Success</status-string>
</rpc-reply>
```

Parameters

status-code

> Displays the status code as URL updated successfully - 0, Error not able to update configuration - 1 or Error not able to remove configuration - 2.

status-string

> Displays the error in string format.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

show-clock

Returns the date, time, and time zone.

Usage

```
<show-clock></show-clock>
```

```
<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="7">
    <clock-time xmlns="urn:brocade.com:mgmt:brocade-clock">
        <current-time>2014-06-04T11:03:31+00:00</current-time>
        <timezone>Etc/GMT</timezone>
    </clock-time>
</rpc-reply>
```

Parameters

current-time
>   Displays the switch date and time

timezone
>   Displays the region/city or region/state/city

History

Release version	History
16r.1.01	This NETCONF call was introduced.

show-ntp

Returns the active NTP server for the Extreme VCS fabric or specified switch.

Usage

```
<show-ntp></show-ntp>


<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="12">
    <node-active-server xmlns="urn:extreme.com:mgmt:extreme-ntp">
        <LOCL>true</LOCL>
    </node-active-server>
</rpc-reply>
```

Parameters

LOCL

> Indicates whether the LOCL is true or false

History

Release version	History
16r.1.01	This NETCONF call was introduced.

show-raslog

Returns RASlog entries.

Usage

```
<show-raslog></show-raslog>
```

```
<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="14">
    <show-all-raslog xmlns="urn:brocade.com:mgmt:brocade-ras-ext">
            <number-of-entries>2842</number-of-entries>
        <raslog-entries>
            <index>8288</index>
            <message-id>NSM-1019</message-id>
            <date-and-time-info>2013/12/07-03:21:17:69</date-and-time-info>
            <severity>informational</severity>
            <log-type>dce</log-type>
            <repeat-count>1</repeat-count>
            <message> Interface Ve 4093 is administratively up.</message>
            <message-flag>unknown</message-flag>
            <switch-or-chassis-name>sw0</switch-or-chassis-name>
        </raslog-entries>
        <raslog-entries>
            <index>13584</index>
            <message-id>SEC-3022</message-id>
            <date-and-time-info>2014/06/03-14:03:52:25</date-and-time-info>
            <severity>informational</severity>
            <log-type>system</log-type>
            <repeat-count>1</repeat-count>
            <message>Event: logout, Status: success, Info: Successful logout by user [admin].</message>
            <message-flag>unknown</message-flag>
            <switch-or-chassis-name>sw0</switch-or-chassis-name>
        </raslog-entries>
    </show-all-raslog>
</rpc-reply>
```

Parameters

number-of-entries

Displays the number of recent events to be fetched from the RASLOG entries

index

Displays the sequence number for the message

message-id

Displays the message identifier

date-and-time-info

Displays the date and time of the message. The format is: YYYY-MM-DD/HH:MM:SS.SSSS

severity

Displays the severity of the message. Valid values include: INFO, WARNING, ERROR, and CRITICAL

log-type

Specifies if the message is a SYSTEM or DCE log

repeat-count

Displays the number of times the particular event has occurred

message

      Displays the textual description of the event

message-flag

      Displays the type of the message

switch-or-chassis-name

      Displays the switch name for the generator of the message, or chassis

History

Release version	History
16r.1.01	This NETCONF call was introduced.

show-system-monitor

Returns system status information.

Usage

```
<show-system-monitor></show-system-monitor>


<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="17">
    <switch-status xmlns="urn:brocade.com:mgmt:brocade-system-monitor-ext">
        <switch-name>sw0</switch-name>
        <switch-ip>10.25.224.18</switch-ip>
        <switch-state>state-marginal</switch-state>
        <switch-state-reason>Switch Status is MARGINAL. Contributors: * Power Supply: 1 bad.
(MARGINAL).</switch-state-reason>
        <report-time>2017-04-04T11:10:5711.668484+31:03</report-time>
        <component-status>
            <component-name>Power supplies monitor</component-name>
            <component-state>state-marginal</component-state>
        </component-status>
        <component-status>
            <component-name>Temperatures monitor</component-name>
            <component-state>state-healthy</component-state>
        </component-status>
        <component-status>
            <component-name>Fans monitor</component-name>
            <component-state>state-healthy</component-state>
        </component-status>
    </switch-status>
</rpc-reply>
```

Parameters

switch-name
> Displays the name of the switch

switch-ip
> Displays the IP address of the switch

switch-state
> Displays the switch status based on components

switch-state-reason
> Displays the component reason for switch status

report-time
> Displays the switch report time stamp

component-name
> Displays the component name

component-state
> Displays the component status based on thresholds

History

Release version	History
16r.1.01	This NETCONF call was introduced.

show-zoning-enabled-configuration

Returns the currently enabled zoning configuration information.

Usage

```
<show-zoning-enabled-configuration></show-zoning-enabled-configuration>


<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns="urn:ietf:params:xml:ns:netconf:base:
1.0" message-id="1">
    <enabled-configuration xmlns="urn:brocade.com:mgmt:brocade-zone">
        <cfg-name>cfg1</cfg-name>
        <enabled-zone>
            <zone-name>zone1</zone-name>
            <member-entry>
                <entry-name>10:00:00:00:00:00:00:01</entry-name>
            </member-entry>
            <member-entry>
                <entry-name>10:00:00:00:00:00:00:02</entry-name>
            </member-entry>
        </enabled-zone>
        <enabled-zone>
            <zone-name>zone2</zone-name>
            <member-entry>
                <entry-name>10:00:00:00:00:00:00:03</entry-name>
            </member-entry>
            <member-entry>
                <entry-name>10:00:00:00:00:00:00:04</entry-name>
            </member-entry>
        </enabled-zone>
        <has-more>false</has-more>
    </enabled-configuration>
</rpc-reply>
```

Parameters

cfg-name
> Displays the name of the zone configuration.

zone-name
> Displays the name of a zone to be added to the configuration.

entry-name
> Displays the WWN of the device.

History

Release version	History
16r.1.01	This NETCONF call was introduced.

user-session-info

Returns user role information.

Usage

```
<user-session-info></user-session-info>

<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="20">
    <user-role xmlns="urn:brocade.com:mgmt:brocade-aaa-ext">admin</user-role>
</rpc-reply>
```

Parameters

user-role

Displays the user role.

History

Release version	History
16r.1.01	This NETCONF call was introduced.