

February 2023



# Extreme TPVM 4.5.9

## Release Notes

Supporting Extreme Routing and Extreme Switching  
SLX 9740, SLX 9640, SLX 9540, SLX 9250, SLX 9150,  
Extreme 8820, Extreme 8720, and Extreme 8520

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## Document History

Version	Summary of changes	Publication date
1.0	Initial version for 4.5.9	February 2023

## Preface

### Getting Help

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

- **Extreme Portal:** Search the GTAC (Global Technical Assistance Center) 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.
- **Call GTAC:** For immediate support, call (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](http://www.extremenetworks.com/support/contact).

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

- Your Extreme Networks service contract number or serial numbers for all involved Extreme Networks products.
- A description of the failure.
- A description of any actions 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.

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1. Go to [www.extremenetworks.com/support/service-notification-form](http://www.extremenetworks.com/support/service-notification-form).
2. Complete the form. All fields are required.
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White papers, data sheets, and the most recent versions of Extreme software and hardware manuals are available at [www.extremenetworks.com](http://www.extremenetworks.com). Product documentation for all supported releases is available to registered users at <https://www.extremenetworks.com/support/documentation/>.

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The Information Development team at Extreme Networks has 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 we especially want to know about:

- Content errors, or confusing or conflicting information.
- Improvements that would help you find relevant information in the document.
- Broken links or usability issues.

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- Access the feedback form at <http://www.extremenetworks.com/documentation-feedback-pdf/>.
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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.

## Release Overview

Release TPVM 4.5.9 provides the following features:

### Security Update

- Security updates are added up to January 31, 2023.

### New Features

- No new features were added for this release.

## Changes in Behavior

The following are the behavioral changes for TPVM 4.5.9.

- No behavioral changes were introduced in this release.

## Hardware and Software Support

- TPVM 4.5.9 supports the following hardware platforms: SLX 9150, SLX 9250, SLX 9540, SLX 9640, SLX 9740, Extreme 8520, Extreme 8720, and Extreme 8820.
- This TPVM version supports all releases and patches from SLX-OS 20.3.2 and beyond.
- TPVM 4.5.9 can be incrementally upgraded from TPVM 4.2.5.
- TPVM 4.5.9 supports full install upgrade/downgrade from TPVM 4.2.5.

## Limitations and Restrictions

- Minimum of 1GB free hard disk space on the TPVM is required to perform the security patch upgrade using the command `tpvm upgrade incremental ...`.
- TPVM upgrade incremental command and file support is available only from TPVM 4.5.0.
- TPVM incremental downgrade from release above 4.5.0 to below 4.5.0 will fail and ask to perform the `tpvm upgrade`.
- Config mode TPVM deploy command does not work with incremental TPVM package.
- TPVM upgrade incremental command will not support `snapshot` option.
- Do not use the `tpvm upgrade incremental` command to upgrade the patches with `tpvm-4.X.X-X.amd64.deb`. Use the `tpvm_inc_upg-4.X.X-X.amd64.deb` image file to perform incremental upgrades. Similarly, do not use the `tpvm_inc_upg-4.X.X-X.amd64.deb` image file to perform full upgrade. Do not use this file to perform `tpvm deploy` in `config mode`.

## TPVM package list

The contents of the TPVM package list is available under the TPVM release folder on the Support Portal (in the form of a JSON file). Below is a sample of the JSON file:

```
{
  "product": "TPVM",
  "version": "4.5.9",
  "packages": [
    {
      "package": "accountsservice",
      "version": "0.6.45-1ubuntu1.3",
      "architecture": "amd64",
      "description": "query and manipulate user account information"}
    },
    .....
  ]
}
```



## Usage of the `tpvm_sec_upgrade.sh` script

### Overview:

Incremental upgrade feature is only available from SLX-OS version 20.4.1 and later. With incremental upgrade, you can upgrade the TPVM without reinstalling it.

A shell script (`tpvm_sec_upgrade.sh`) is provided to upgrade only the security patches on TPVM installed on SLX-OS versions earlier to SLX-OS 20.4.1.

**Note:** The above script is bundled along with the TPVM package.

### Pre-requisites:

- TPVM should be up and running.
- There should be at least 1GB of free space on `/dev/vda1` and `/dev/vda2` on the installed TPVM.
- This script requires `tpvm_inc_upg-xxx.amd64.deb` file. Only one instance of the `tpvm_inc_upg-xxx.amd64.deb` Debian file must be available under the `/apps/` directory on the TPVM.

### Usage:

- Copy the `tpvm_sec_upgrade.sh` script file to the `/apps/` directory on the TPVM. Use the following example to understand the command to use:

```
sudo scp -r <HOSTNAME>@<IP ADDRESS>:<PATH TO SCRIPT>/tpvm_sec_upgrade.sh /apps/
```

- Copy the incremental Debian file, `tpvm_inc_upg-xxx.amd64.deb` to the `/apps/` on the TPVM. Use the following example to understand the command to use:

```
sudo scp -r <HOSTNAME>@<IP ADDRESS>:<PATH TO DEB FILE>/tpvm_inc_upg-xxx.amd64.deb /apps/
```

- Execute the new script:

```
sudo ./tpvm_sec_upgrade.sh
```

Upon running the script, it first checks if all the pre-requisites are met. If the pre-requisites are met, the script then extracts the incremental Debian file and applies the security updates to the TPVM. If a kernel upgrade is performed as part of this process, then the following message is displayed:

***“KERNEL upgrade has done. It is advisable to reboot the TPVM, to take changes in effect.”***

Upon successful completion of the script, it removes the incremental `.deb` file from the `/apps/` directory.

Below are the logs printed on the TPVM console as part of execution of this script:

*Checking pre-requisites*

*Checking prerequisites completed successfully*

*Extracting deb file*

*Extracting deb file completed successfully*

*Installing Security updates on TPVM*

*Please DO NOT press CTRL+C*

*\*\*\*\*\**

*\*\*\* Installing Security updates on TPVM completed successfully*

*\*\*\*\*\*KERNEL upgrade has done. It is advisable to reboot the TPVM\*\*\*\*\**

*Removing tpvm deb files file*

**Limitations:**

- As part of the script, only security updates are done. No TPVM script files are updated.
- TPVM version is **not updated** to a newer version. For example, if the TPVM is running with 4.4.0, then `show tpvm status` displays 4.4.0 in output. As part of the script, if the TPVM version is updated to 4.5.9, then the TPVM version in the output of the `show tpvm status` command will still show 4.4.0 and not 4.5.9.