

Release Notes: ISW Series 8-Port Industrial Switches

Firmware Version 1.01.04.0001 (for all models)

Models:

ISW 4-10/100P, 2-10/100T, 2-SFP, PoE Switch (FE)
ISW 4Gbp, 2GbT, 2-SFP, PoE Switch (GE)

Documentation Date: 2022/02/28

Note:

Image ISW-TLN-12PORT_V01.01.04.0001 is not compatible with 8-port ISW-Series platforms.

[New Release: v01.01.04.0001]

These Release Notes include all feature changes and fixed bugs through release v01.01.03.0015.

<Software Date>

Software Build Date: 2022/02/24

<Software Base>

MSCC VSC7429, VSC7425 Compatible
OS: eCos Operating System
Version 3.65 CE Service

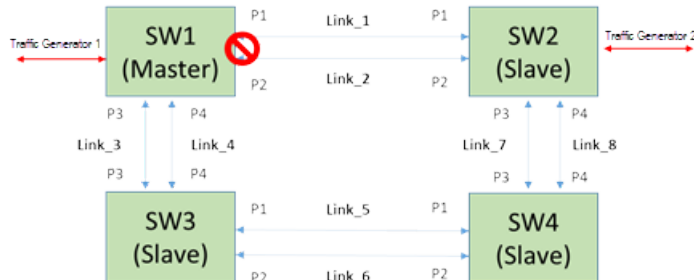
<New Features>

1. Support Dual Ring (Ring/Chain with LAG)
 - ➔ This feature is supported in all Ring, Chain, Coupling, Dual-homing, and Balancing Chain technologies.
- Restrictions of Dual Ring:
 - Each LAG Ring node supports only 2 ports of LAG
 - Ring topologies that have STP mixed with LAG Ring nodes are not supported
 - Only Static LAG is supported

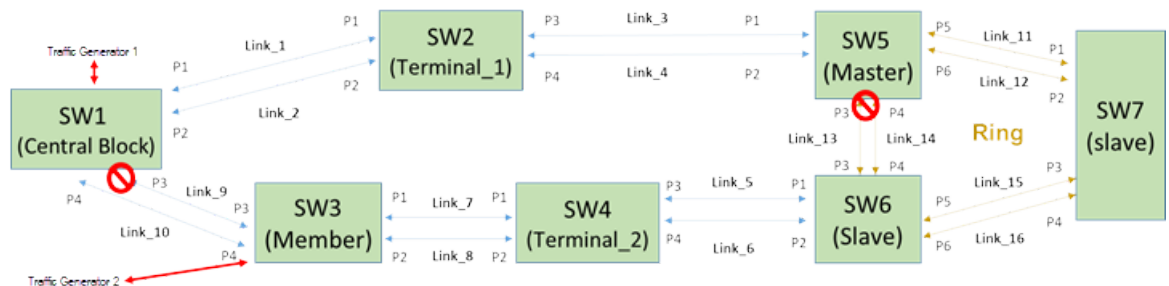
- Supported topologies:

Average recovery time is same as original Ring technologies (similar to rings without LAG). The recovery time is sub-50 ms.

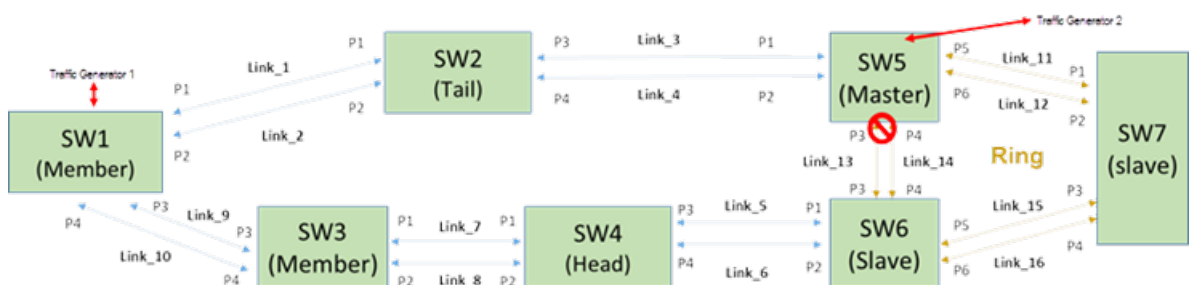
- Ring with LAG



- Balancing Chain with LAG



- Chain with LAG



- Web (allows LAGs to be configured as Ring ports)

RingV2 Configuration

Ring Configuration			
Index	Mode	Role	Ring Port(s)
1	Enable	Ring(Master)	Forward Port : Aggr-1 Block Port : Aggr-2
2	Enable	Ring(Slave)	Forward Port : Aggr-3 Forward Port : Aggr-4
3	Disable	Chain(Member)	Member Port : Port-1 Member Port : Port-2

- CLI commands:
Support LAG port can be configured for Ring node1 & node2.

```
(config-ringv2-group1)#
```

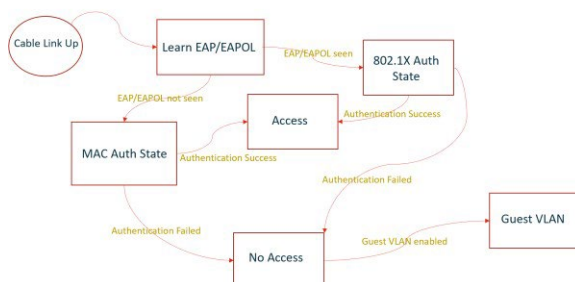
```
(config-ringv2-group1)#node1 aggregation group <LAG group ID>
```

```
(config-ringv2-group1)#node2 aggregation group <LAG group ID>
```

2. Support “Enable both MAC and 802.1X auth on same port”
➔ 802.1X/MAC Auth auto sense mode.

- Mode States:
 - Try to authenticate through 802.1X else
 - Try to authenticate through MAC else
 - Provide Guest VLAN access (if Guest VLAN is enabled) else
 - No Access

State chart of 802.1X/MAC auto sense mode



Note: If enabling 802.1X on the end-station, a port bounce on the ISW will be required to perform 802.1X authentication.

- New timer parameter: Sense Period
Used to identify if the client enabled 802.1X. Identification method is to learning if the port received EAP/EAPOL packets, the first learnt packet will be EAPOL start normally after port is linked up.
- CLI commands:

(config)#dot1x timeout sense-period <10-255>, default: 10 seconds
- New mode of port control: dot1x port-control sense
To support, enable both MAC and 802.1X auth on same port.
- CLI commands:

(config-if)# dot1x port-control sense
- Web design for Sense Period and port-control mode

Configuration

- System
- Green Ethernet
- Ports
- DHCP
- Security
 - Switch
 - Network
 - Limit Control
 - NAS
 - ACL
 - IP Source Guard
 - ARP Inspection
 - AAA
 - Aggregation
 - Loop Protection
 - Spanning Tree
 - IPMC Profile
 - MVR
 - IPMC
 - LLDP
 - Fabric Attach
 - PoE
 - MEP
 - ERPS
 - MAC Table
 - VLANs
 - Private VLANs
 - VCL
 - Voice VLAN
 - QoS
 - Mirroring
 - GVRP
 - sFlow
 - RingV2
 - DDMI
- Monitor
- Diagnostics
- Maintenance

Network Access Server Configuration

System Configuration

Mode	Enabled
Reauthentication Enabled	<input type="checkbox"/>
Reauthentication Period	3600 seconds
EAPOL Timeout	30 seconds
Aging Period	300 seconds
Hold Time	10 seconds
Sense Period	10 seconds
RADIUS-Assigned QoS Enabled	<input type="checkbox"/>
RADIUS-Assigned VLAN Enabled	<input type="checkbox"/>
Guest VLAN Enabled	<input checked="" type="checkbox"/>
Guest VLAN ID	5
Max. Reauth. Count	2
Allow Guest VLAN if EAPOL Seen	<input checked="" type="checkbox"/>

Port Configuration

Port	Admin State	RADIUS-Assigned QoS Enabled	RADIUS-Assigned VLAN Enabled	Guest VLAN Enabled	Port State	Restart
* <>	Force Authorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Link Down	Reauthenticate Reinitialize
1	Force Authorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Link Down	Reauthenticate Reinitialize
2	Force Authorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Link Down	Reauthenticate Reinitialize
3	Force Authorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Link Down	Reauthenticate Reinitialize
4	Force Authorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Link Down	Reauthenticate Reinitialize
5	Force Authorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Link Down	Reauthenticate Reinitialize
6	Force Authorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Link Down	Reauthenticate Reinitialize
7	Force Authorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Link Down	Reauthenticate Reinitialize
8	802.1X or MAC-based sense	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Authorized	Reauthenticate Reinitialize
9	Force Authorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Link Down	Reauthenticate Reinitialize
10	Force Authorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Link Down	Reauthenticate Reinitialize

<Feature updates>

1. Support TLS1.2 for HTTPs connection.
2. Enable HTTPs and HTTPs redirect by default. (By default, all HTTP sessions will be redirected to HTTPs)
3. ISW SNMP performance improvement (OID:1.3.6.1.2.1.31 and for 1.3.6.1.2.1.2.2)
Modify the SNMP response for 1.3.6.1.2.1.31 and for 1.3.6.1.2.1.2.2 to report only existing VLANs = do not report non-existing VLANs (Previous version will response 1~4095 VLANs if one of the ports is enabled in Trunk mode.)

<Fixed Bugs>

1. TSS5406: Switch reboots when I enable dot1x authentication

Release History

For details about the contents of previous firmware releases, refer to [Release Notes for ISW Series 12-Port Industrial Switches \(version 1.01.03.0015\)](#).

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