

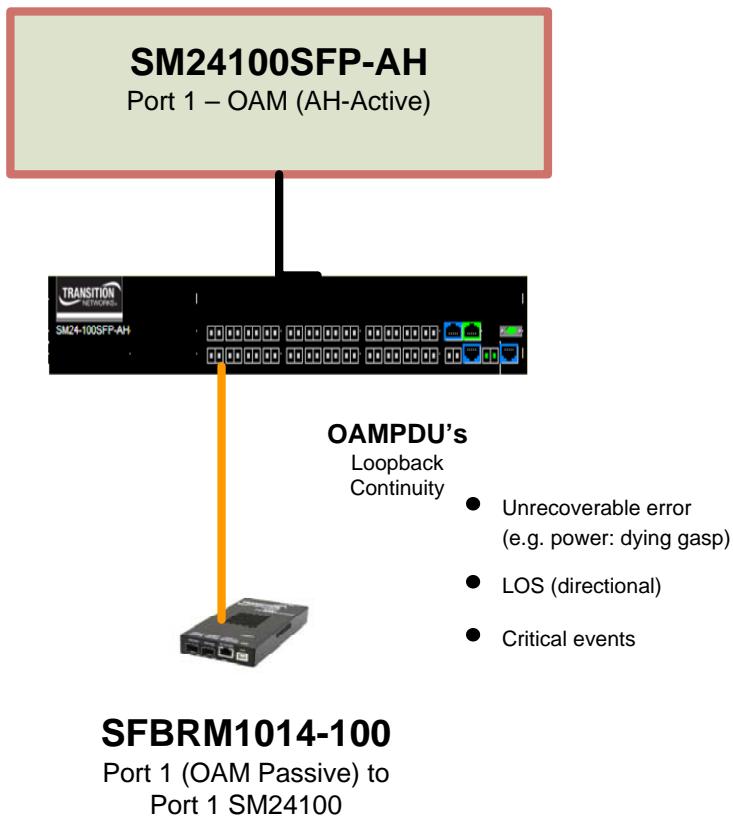


Configuring OAM (IEEE 802.3ah)

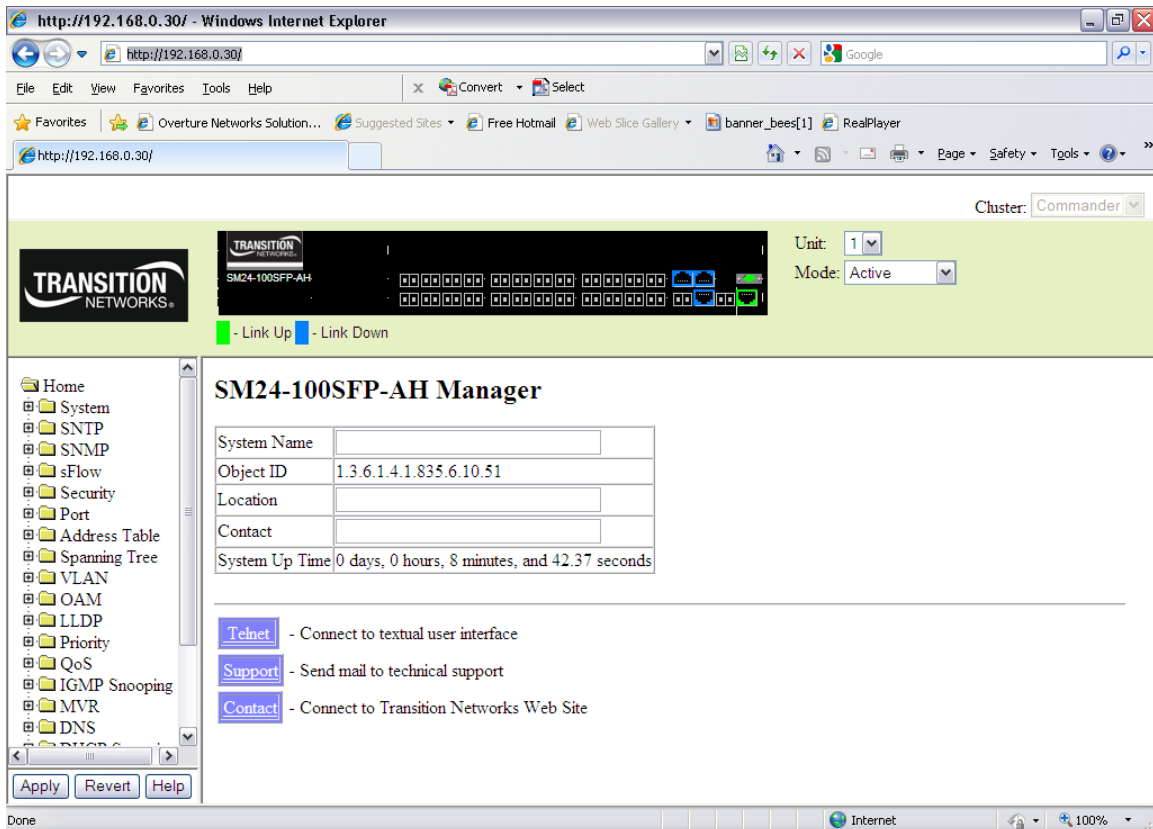
Application note:

This application note describes how to properly configure OAM (IEEE 802.3ah) through a single web GUI interface via the SM24-100SFP-AH and SFBRM stand-alone NID.

This example enables Port 1 on the SM24-100SFP-AH as the “active” OAM peer and the SFBRM as the “passive” remote peer.



Step 1 – Assign an IP address via the CLI interface then log-in via the web GUI



Step 2 - Go to Port Configuration – Enable Admin Status then **Apply**

Unit: 1
Mode: Active

Port Configuration

Port	Name	Admin	Speed Duplex	Flow Control	Giga PHY Mode	Autonegotiation	Media Type	Trunk
1		<input checked="" type="checkbox"/> Enabled	100full	<input checked="" type="checkbox"/> Enabled	Auto Prefer Master	<input checked="" type="checkbox"/> Enabled <input type="checkbox"/> 10h <input type="checkbox"/> 100h <input type="checkbox"/> 1000h <input type="checkbox"/> Sym <input type="checkbox"/> 10f <input type="checkbox"/> 100f <input type="checkbox"/> 1000f <input type="checkbox"/> FC	None	
2		<input checked="" type="checkbox"/> Enabled	100full	<input checked="" type="checkbox"/> Enabled	Auto Prefer Master	<input checked="" type="checkbox"/> Enabled <input type="checkbox"/> 10h <input type="checkbox"/> 100h <input type="checkbox"/> 1000h <input type="checkbox"/> Sym <input type="checkbox"/> 10f <input type="checkbox"/> 100f <input type="checkbox"/> 1000f <input type="checkbox"/> FC	None	
3		<input checked="" type="checkbox"/> Enabled	100full	<input checked="" type="checkbox"/> Enabled	Auto Prefer Master	<input checked="" type="checkbox"/> Enabled <input type="checkbox"/> 10h <input type="checkbox"/> 100h <input type="checkbox"/> 1000h <input type="checkbox"/> Sym <input type="checkbox"/> 10f <input type="checkbox"/> 100f <input type="checkbox"/> 1000f <input type="checkbox"/> FC	None	
4		<input checked="" type="checkbox"/> Enabled	100full	<input checked="" type="checkbox"/> Enabled	Auto Prefer Master	<input checked="" type="checkbox"/> Enabled <input type="checkbox"/> 10h <input type="checkbox"/> 100h <input type="checkbox"/> 1000h <input type="checkbox"/> Sym <input type="checkbox"/> 10f <input type="checkbox"/> 100f <input type="checkbox"/> 1000f <input type="checkbox"/> FC	None	
5		<input checked="" type="checkbox"/> Enabled	100full	<input checked="" type="checkbox"/> Enabled	Auto Prefer Master	<input checked="" type="checkbox"/> Enabled <input type="checkbox"/> 10h <input type="checkbox"/> 100h <input type="checkbox"/> 1000h <input type="checkbox"/> Sym <input type="checkbox"/> 10f <input type="checkbox"/> 100f <input type="checkbox"/> 1000f <input type="checkbox"/> FC	None	
6		<input checked="" type="checkbox"/> Enabled	100full	<input checked="" type="checkbox"/> Enabled	Auto Prefer Master	<input checked="" type="checkbox"/> Enabled <input type="checkbox"/> 10h <input type="checkbox"/> 100h <input type="checkbox"/> 1000h <input type="checkbox"/> Sym <input type="checkbox"/> 10f <input type="checkbox"/> 100f <input type="checkbox"/> 1000f <input type="checkbox"/> FC	None	
7		<input checked="" type="checkbox"/> Enabled	100full	<input checked="" type="checkbox"/> Enabled	Auto Prefer Master	<input checked="" type="checkbox"/> Enabled <input type="checkbox"/> 10h <input type="checkbox"/> 100h <input type="checkbox"/> 1000h <input type="checkbox"/> Sym <input type="checkbox"/> 10f <input type="checkbox"/> 100f <input type="checkbox"/> 1000f <input type="checkbox"/> FC	None	
8		<input checked="" type="checkbox"/> Enabled	100full	<input checked="" type="checkbox"/> Enabled	Auto Prefer Master	<input checked="" type="checkbox"/> Enabled <input type="checkbox"/> 10h <input type="checkbox"/> 100h <input type="checkbox"/> 1000h <input type="checkbox"/> Sym <input type="checkbox"/> 10f <input type="checkbox"/> 100f <input type="checkbox"/> 1000f <input type="checkbox"/> FC	None	
9		<input checked="" type="checkbox"/> Enabled	100full	<input checked="" type="checkbox"/> Enabled	Auto Prefer Master	<input checked="" type="checkbox"/> Enabled <input type="checkbox"/> 10h <input type="checkbox"/> 100h <input type="checkbox"/> 1000h <input type="checkbox"/> Sym <input type="checkbox"/> 10f <input type="checkbox"/> 100f <input type="checkbox"/> 1000f <input type="checkbox"/> FC	None	

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Step 3 - Next, select OAM, OAM configuration. Set Admin status to “enable” and mode to “Active” – This will ensure the SM24100 Port 1 is the “Active” OAM peer. Ensure dying gasp and “critical event” is checked. **Apply**.

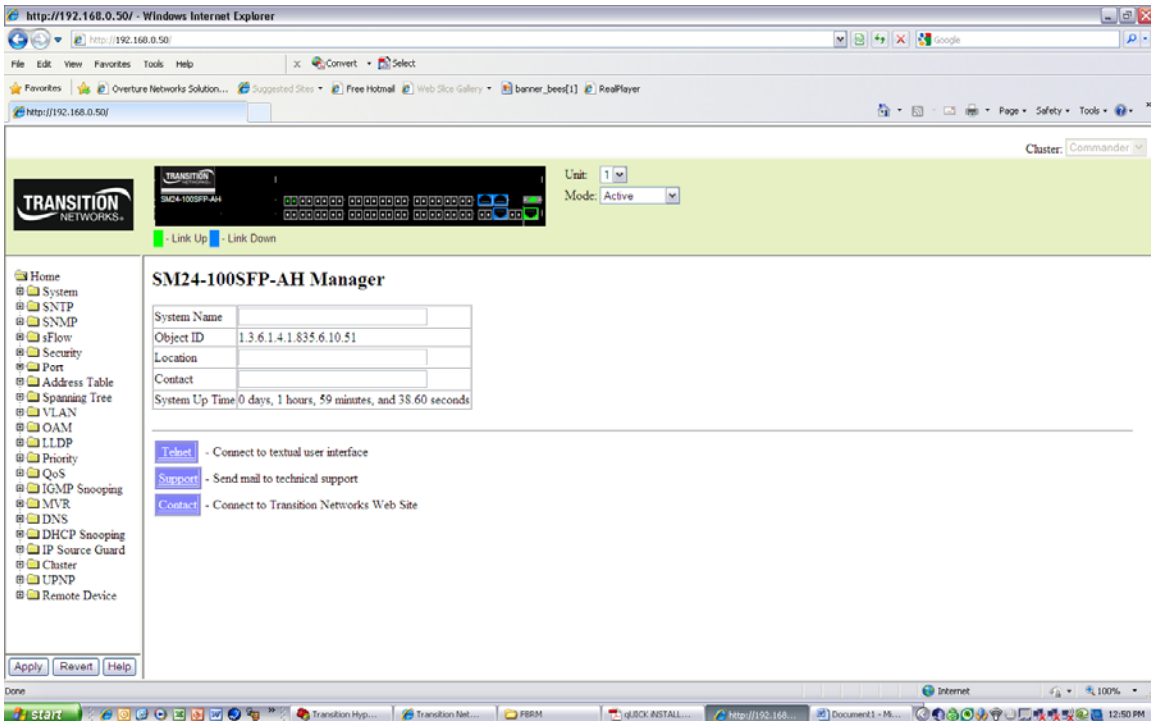
Unit: 1
Mode: Active

OAM Configuration

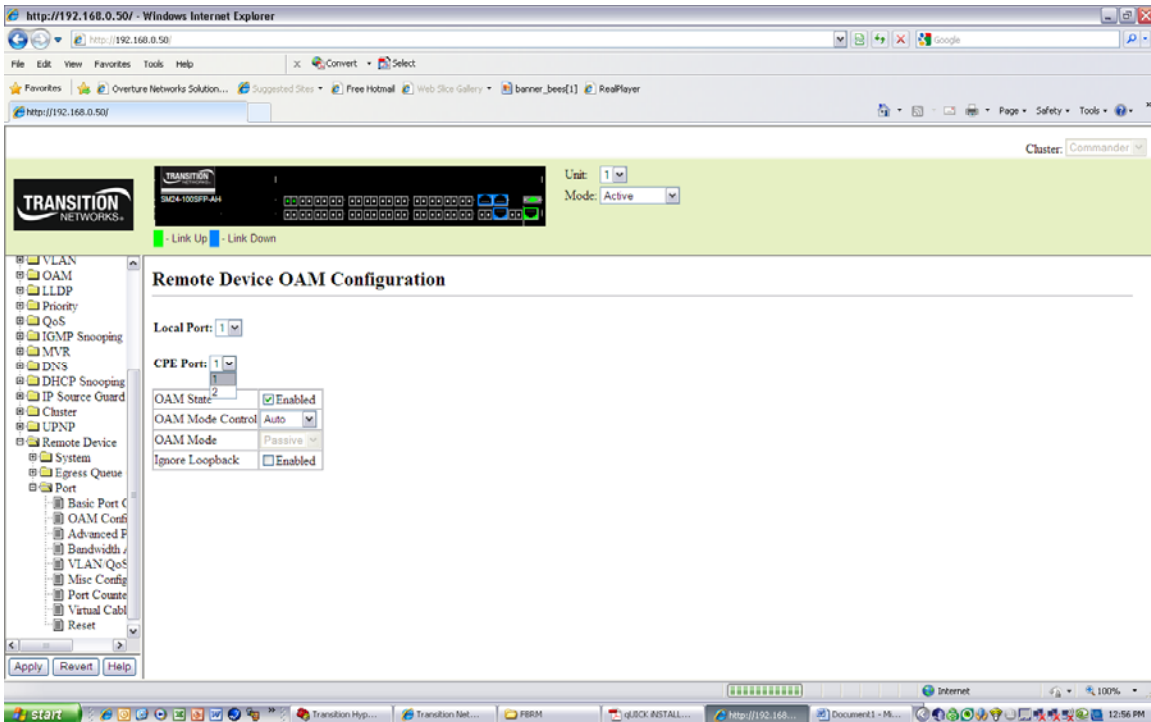
Port	Admin Status	Operation State	Mode	Critical Link Event
				Dying Gasp Critical Event
1	<input checked="" type="checkbox"/> Enabled	Operational	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
2	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
3	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
4	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
5	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
6	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
7	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
8	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
9	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
10	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
11	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
12	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
13	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
14	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
15	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled
16	<input type="checkbox"/> Enabled	Disabled	Active	<input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Enabled

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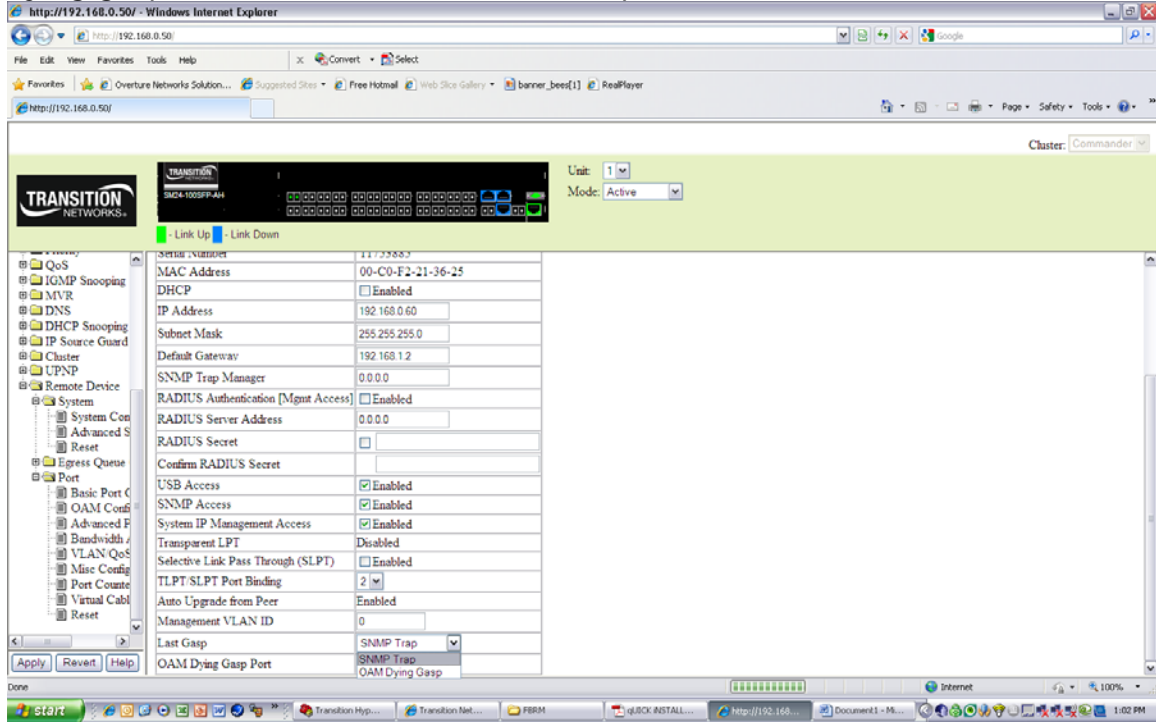
Step 4 - Next, select **“Remote Device”**, OAM configuration, select/check OAM status to **“enable,”** Select OAM mode **“Passive”**, then **“apply.”** This will ensure the SFBRM is the **“passive”** OAM peer



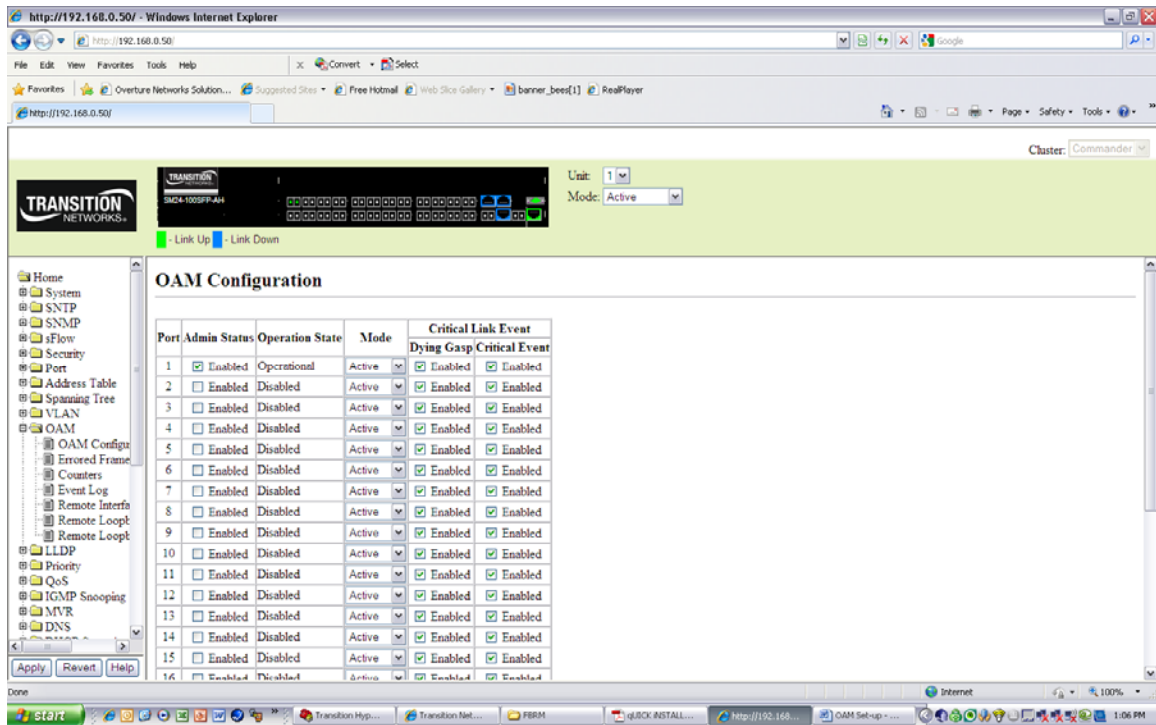
Step 5 – Repeat Step 3 above but select next CPE port (e.g. Port 2) for OAM, then **Apply**



Step 6 – Next, go to Remote System Configuration, Last Gasp, then select if dying gasp should be sent via a SNMP trap or via OAM.



Step 7 – Next go to System, OAM Configuration, and ensure OAM port is "active, and Operational"



Step 8 – Next go to OAM, Remote Status Interface, ensure remote SFBRM MAC in shown as Port 1, remote loop-back and link monitor is enabled

Cluster: Commander

Unit: 1
Mode: Active

Remote Interface Status

Port	MAC Address	OUI	Remote Loopback	Unidirectional Function	Link Monitor	MIB Variable Retrieval
1	00-C0-F2-20-C9-BA	00-C0-F2	Enabled	Disabled	Enabled	Disabled
2	00-00-00-00-00-00	00-00-00	Disabled	Disabled	Disabled	Disabled
3	00-00-00-00-00-00	00-00-00	Disabled	Disabled	Disabled	Disabled
4	00-00-00-00-00-00	00-00-00	Disabled	Disabled	Disabled	Disabled
5	00-00-00-00-00-00	00-00-00	Disabled	Disabled	Disabled	Disabled
6	00-00-00-00-00-00	00-00-00	Disabled	Disabled	Disabled	Disabled
7	00-00-00-00-00-00	00-00-00	Disabled	Disabled	Disabled	Disabled
8	00-00-00-00-00-00	00-00-00	Disabled	Disabled	Disabled	Disabled
9	00-00-00-00-00-00	00-00-00	Disabled	Disabled	Disabled	Disabled
10	00-00-00-00-00-00	00-00-00	Disabled	Disabled	Disabled	Disabled
11	00-00-00-00-00-00	00-00-00	Disabled	Disabled	Disabled	Disabled
12	00-00-00-00-00-00	00-00-00	Disabled	Disabled	Disabled	Disabled

Step 9 – Next go to OAM, Counters, ensure OAMPDUs are being TX/RX

Cluster: Commander

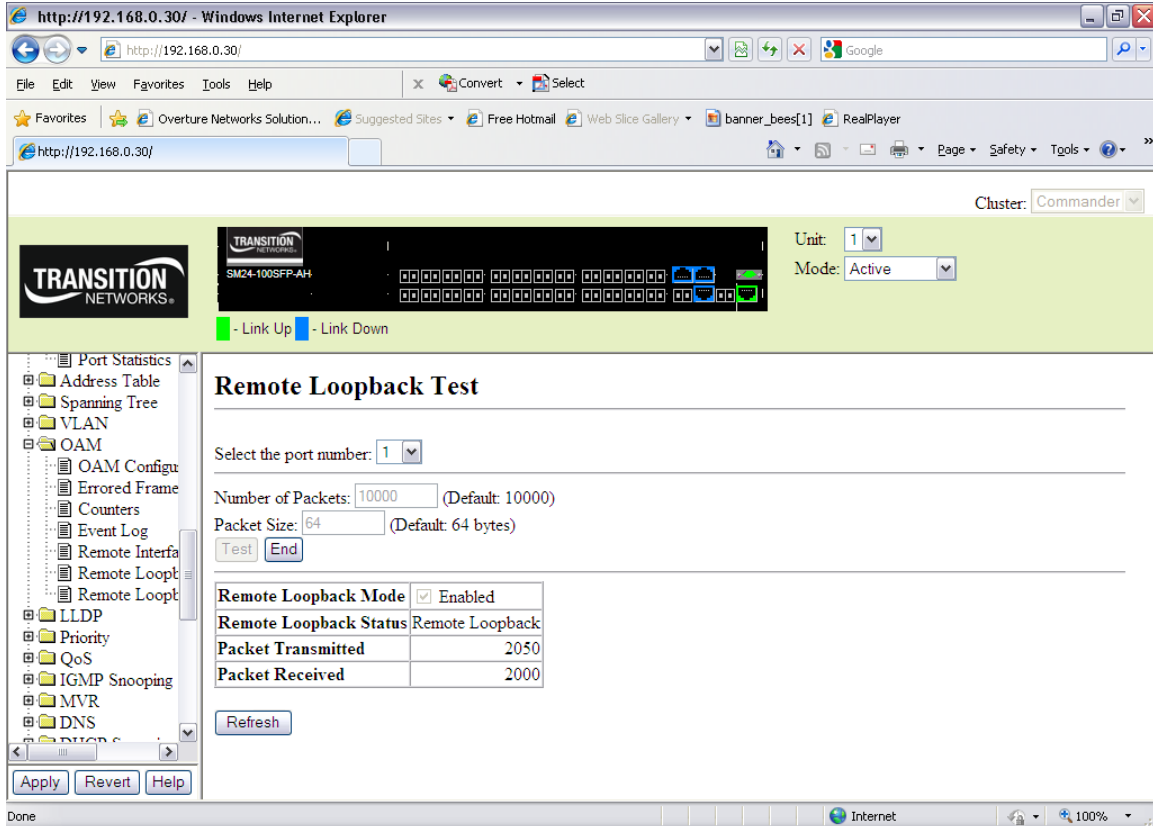
Unit: 1
Mode: Active

OAM Counters

Reset Select All Clear Counters Refresh

Port	Clear	OAMPDU							
		Information		Event Notification		Loopback Control		Organization Specific	
		Transmitted	Received	Transmitted	Received	Transmitted	Received	Transmitted	Received
1	<input type="checkbox"/>	2304	1796	0	0	0	0	166	166
2	<input type="checkbox"/>	0	0	0	0	0	0	0	0
3	<input type="checkbox"/>	0	0	0	0	0	0	0	0
4	<input type="checkbox"/>	0	0	0	0	0	0	0	0
5	<input type="checkbox"/>	0	0	0	0	0	0	0	0
6	<input type="checkbox"/>	0	0	0	0	0	0	0	0
7	<input type="checkbox"/>	0	0	0	0	0	0	0	0
8	<input type="checkbox"/>	0	0	0	0	0	0	0	0
9	<input type="checkbox"/>	0	0	0	0	0	0	0	0
10	<input type="checkbox"/>	0	0	0	0	0	0	0	0
11	<input type="checkbox"/>	0	0	0	0	0	0	0	0
12	<input type="checkbox"/>	0	0	0	0	0	0	0	0

Step 10 – Next, go to OAM, Remote loop-back, and perform an OAM loopback to the remote SFBRM. Select port number (1), number of packets, packet size, **apply**. Next, select “Test”. Note TX/RX packets. Select “end” to stop test



Step 11 – Next, go to OAM, **Event log** to retrieve both local and remote OAM events.

http://192.168.0.30/ - Windows Internet Explorer

http://192.168.0.30/

Cluster: Commander

Unit: 1
Mode: Active

TRANSITION NETWORKS
SM24-100SFP-AH

- Link Up - Link Down

Event Log

Select the port number on the interface: 1

Date (yyyy/mm/dd)	Time (hh:mm:ss)	Event Log
2001/01/01	00:09:19	Unit 1, Port 1: Critical Event at Remote
2001/01/01	00:09:20	Unit 1, Port 1: Critical Event at Remote
2001/01/01	00:09:21	Unit 1, Port 1: Critical Event at Remote
2001/01/01	00:09:24	Unit 1, Port 1: Critical Event at Remote
2001/01/01	00:09:25	Unit 1, Port 1: Critical Event at Remote
2001/01/01	00:09:26	Unit 1, Port 1: Critical Event at Remote
2001/01/01	00:09:27	Unit 1, Port 1: Critical Event at Remote
2001/01/01	00:09:28	Unit 1, Port 1: Critical Event at Remote
2001/01/01	00:09:29	Unit 1, Port 1: Critical Event at Remote
2001/01/01	00:09:30	Unit 1, Port 1: Critical Event at Remote

Apply Revert Help

Internet 100%