Hybrid TDM and Ethernet Services

PoC Template #4

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# Introduction

## Purpose

This document describes various testing scenarios for deployment of both TDM and Ethernet services through RAD’s hybrid access aggregator (Megaplex-4).

This type of solution allows incumbent service providers to keep revenue flow and customer loyalty by bundling packet and TDM services on the same packet transport.

This  hybrid behavior is enabled by the Megaplex-4 platform which acts as a multiservice platform for aggregating TDM and Ethernet services over both SDH/SONET and packet cores.

TDM services transport is demonstrated using both native TDM transport, as well as via emulation over packet networks, using TDM pseudowire technology.

In this POC document we demonstrate this hybrid nature with two main scenarios:

* Transporting TDM and Ethernet services over SHDSL lines through the Megaplex-4 aggregator over SDH/SONET core.
* Emulating TDM traffic with pseudowire at CPE level (ETX), and aggregating both Ethernet and (emulated) TDM services over fiber through the Megaplex-4 aggregator over the packet core.

Among scenarios that are out of scope of this document but supported by the solution :

* Aggregating TDM traffic and emulating them over the packet core (using Megaplex-4 pseudowire capabilities)
* Aggregating Ethernet SHDSL traffic natively over the packet core.

## Layout Overview

### Application Diagram

Figure 1: High level application diagram

Figure 2: In depth application diagram

### Devices Under Test

|  |  |
| --- | --- |
| Megaplex-4RAD’s Megaplex-4 is a carrier-class, high capacity multiservice access concentrator for delivering legacy and next-generation services over PDH/SDH/SONET, or over packet switched transport networks (PSN). Its ability to handle a broad range of Ethernet, data and voice services, as well as a large variety of network technologies, in a single compact managed node, makes it an ideal core/edge solution for carriers and service providers.The device also provides a perfect fit for large enterprises, utilities and transportation companies, who require an efficient way to transport and provision multiple legacy and next-generation services over their high capacity pipes. Megaplex-4 can be used as a central aggregation unit for TDM and Ethernet CPEs that are connected over various access links. |  |
| ETX-205A/E1T1High performance NTE delivering SLA-based Ethernet business services including Synchronous Ethernet, IEEE1588-2008, 2 x 1GbE ports in NNI and 4 x 1GbE port in UNI, E1/T1 pseudowire services per MEF-8, UDP/IP, in SAToP and CESoP modes and with CAS. |  |
| ASMi-53 The ASMi-53 SHDSL.bis CPE modem is a cost-effective device for extending V.35, E1 and mid-band Ethernet services over multi-pair bonded copper links. Ensuring reliable performance over poor quality or noisy lines, the ASMi-53 SHDSL.bis CPE modem operates in full duplex mode over 2-wire or 4-wire lines, achieving variable data rates of up to 11.4 Mbps.The ASMi-53 is ideal for applications which are looking for economical delivery of voice and broadband data traffic in point-to-point or hub-and-spoke communications.  |  |
| ETX-5300A Aggregates up 80 FE/GE links from remote NTEs with advanced traffic management; highly accurate, hardware-based OAM and performance monitoring; 4 x 10GbE interfaces in the main module; power dissipation up to 500W; form-factor, 3U modular system. Extensive Sync-E, 1588v2support, including 1588 Grandmaster. Extensive TDM pseudowire support: CESoPSN, SAToP,CESoETH (MEF-8),UDP/IP encapsulation. |  |

### Devices Under Test

The following tables contain the elements used in this PoC testing.

##### RAD POC Proposal BOM

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Product | Ordering Option | Description | QTY | SW Version |
| ETX-5300(optional) | ETX-5300A/AC | 5700040000 | 1 | 2.2.0(0.22) |
| ETX-5300A-MC/4XFP/AT | 6170210000 | 1 |
| ETX-5300A-ETH/20XGE/SFP/H | 6170160000 | 1 |
| ETX-205A | ETX-205A/AC/19/4E1T1 | 5270480000 | 1 | 5.7.0(0.59) |
| MP-4100 | MP-4100-2/48R/622GBEASFPR | 4880820000  | 2 | 4.60.18 |
| MP-4100M-ETH/UTP | 4641250000 | 2 | 2.01 |
| MP-4100M-16SHDSL | 3680130000 | 2 | 1.31 |
| ASMi-53 | ASMI-53/DC/ETH/E1/4W | 6640180000 | 2 | 1.3.0(0.14) |
| SFP-9G | SFP-9G | 1278090000 | 2 |  |
| SHDSL cable | CBL-DB26-8SHDSL | 5250050000 | 2 |  |
| RADview | RADVIEW-PC/PMSM/DEMO | 5760260000 | 1 | 4.0.0(0.802) +ems40-v3.9.5 Patch |
| RV-LIC/ENW  |  |  |

##### Test Equipment

|  |  |  |
| --- | --- | --- |
| Function | description | Notes |
| TDM Generator | E1/T1 traffic generator | E1/T1 |
| ETH Generator | Ethernet traffic generator |  |
| Fiber Cables | SM Fiber |  |
| Terminal Configuration Cables | RAD CBL-DB9-RJ45 | Supplied |

##### PSN Switch - Optional

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Product | Ordering Option | Description | QTY | SW Version |
| ETX-5300 | ETX-5300A/AC | 5700040000 | 1 | 2.2.0(0.22) |
| ETX-5300A-MC/4XFP/AT | 6170210000 | 1 |
| ETX-5300A-ETH/20XGE/SFP/H | 6170160000 | 1 |

# Configuring and Managing Services

The configuration of each device will be done using CLI (Command Line Interface).Scripts for each device are given in the Appendix.

🖝 Before configuring the all elements, set to factory default.

## CESoPSN UDP/IP – SDH

### Overview

This setup demonstrates:

* **TDM traffic over UDP/IP Networks, using CESoPSN encapsulation**
The Pseudowire (PW) transfers E1 traffic from the ETX-205 E1 ports over its Ethernet ports.
Traffic from the ETX-205 enters the MP-4, which transports the ETH packets over the PSN network simulated by the ETX-5. The traffic is protected by LAG.
* **Ethernet traffic over Ethernet networks**
The Ethernet traffic coming from the ETX is forwarded to the MP-4, which transports the ETH packets over the PSM network simulated by the ETX-5. The traffic is protected by LAG.
* **Ethernet traffic over SHDSL lines using the ASMi-53 SHDSL modem**
Ethernet traffic coming from the SHDSL modem is forwarded to the MP-4 over SHDSL lines, which transports the Ethernet traffic over the SDH network.
* **E1 traffic over SHDSL lines**
E1 traffic coming from the SHDSL modem is forwarded to the MP-4 over SHDSL lines, which transports the E1 traffic over the SDH network.

🖝 **E1 traffic from SHDSL modem is possible only with an MP-4100M-16SHDSL/E1 card on MP-4.
Please check RAD rollout in the Distributor’s site to check availability.**

### Creating Management and Services

#### ETX-5 Settings

1. Access ETX-5 unit via serial (baud rate 9600) and verify that the ETX-5300A-ETH/20XGE/SFP/H module appears as the actual installed module in slot 1 (Configuration> show config cards-summary)
2. Configure ETX-5 according to the scripts in [Appendix A.1](#a1):
* Factory default
* Management and Port Configuration
1. After running the scripts, verify the provisioned I/O modules are updated properly (Configuration> show config cards-summary).
* Local Management Setup configuration script.
1. Verify ping replies from the Management station towards of the ETX-5
2. Save the configuration of the ETX-5 device.

#### Megaplex-4100\_A Settings

1. Access the MP-4\_A unit via serial (baud rate 9600)
2. Configure the MP-4\_A according to the scripts in [Appendix A.2](#a2):
* Factory default
* Cards configuration
* Management configuration script
* Clocking
* Ethernet service from ETX-205\_A
* Ethernet service from SHDSL over SDH
* E1 unframed
1. Verify ping replies from the Management station towards MP-4\_A.
2. Save the configuration of the MP-4\_A device.

#### Megaplex-4100\_B Settings

1. Access the MP-4\_B unit via serial (baud rate 9600)
2. Configure the MP-4\_B according to the scripts in [Appendix A.3:](#aa33)
* Factory default
* Cards configuration
* Management configuration script
* Clocking
* Ethernet service from ETX-205\_B
* Ethernet service from SHDSL over SDH
1. Verify ping replies from the Management station towards MP-4\_B.
2. Save the configuration of the MP-4\_B device.

#### ETX-205\_A Settings

1. Access ETX-205 unit via serial (baud rate 9600)
2. Configure ETX-205 according to the scripts in [Appendix A.4](#etx205a):
* Factory default
* Queues Configuration
* Management configuration script
1. Verify ping replies from the Management station towards of the ETX-205\_A.
* CESoPSN PW configuration
* Ethernet service
* E1 unframed
1. Save the configuration of the ETX-205\_A device.

#### ETX-205\_B Settings

1. Access ETX-205\_B unit via serial (baud rate 9600)
2. Configure ETX-205\_B according to the scripts in [Appendix A.5](#a3):
* Factory default
* Queues Configuration
* Management configuration script
1. Verify ping replies from the Management station towards of the ETX-205\_B.
* CESoPSN PW configuration
* Ethernet service
1. Save the configuration of the ETX-205\_B device.

#### ASMi-53\_A Settings

1. Access ASMi-53\_A unit via serial (baud rate 9600)
2. Configure ASMi-53\_A according to the screenshots in [Appendix A.6](#a6):
* Factory default
* ASMi-53 – transparent modem
* E1 unframed
* Management
1. Verify ping replies from the Management station towards of the ASMi-53\_A.

#### ASMi-53\_B Settings

1. Access ASMi-53\_B unit via serial (baud rate 9600)
2. Configure ASMi-53\_B according to the screenshots in [Appendix A.7](#a7):
* Factory default
* ASMi-53 – transparent modem
* E1 unframed
* Management
1. Verify ping replies from the Management station towards of the ASMi-53\_B.

### Service and Management Tests

#### Management

|  |  |  |  |
| --- | --- | --- | --- |
| Test | Device | Expected results | Pass/fail |
| Verify ping replies from the Management station towards all devices | ETX-5 | Pings reply without timeouts |  |
| MP-4100\_A |  |
| MP-4100\_B |  |
| ETX-205\_A |  |
| ETX-205\_B |  |
| ASMi-53\_A |  |
| ASMi-53\_B |  |

#### Services

##### TDM

* Connect E1 tester to the E1 ports of ETX-205A and put physical loop on the E1 ports of ETX-205\_B
* Connect E1 tester to the E1 port of ASMi-53\_A and put physical loop on the E1 ports of ASMi-53\_B
* Run E1 traffic of 31 Time Slots with line-type G.732N (PCM31).

|  |  |
| --- | --- |
| Traffic | Expected Results |
| Run data for 1 min on port 1 of ETX-205\_A.31 TS, line-type G.732N | Data is running without errors |
| Run data for 1 min on port 2 of ETX-205\_A.31 TS, line-type G.732N | Data is running without errors |
| Run data for 1 min on port 3 of ETX-205\_A.31 TS, line-type G.732N | Data is running without errors |
| Run data for 1 min on port 4 of ETX-205\_A.31 TS, line-type G.732N | Data is running without errors |
| Run data for 1 min on e1 port 1 of ASMi-53\_A.31 TS, line-type G.732N | Data is running without errors |

##### Ethernet

* Connect Ethernet traffic generator to Ethernet port 3 of ETX-205\_A and Ethernet port 3 of ETX-205\_B
* Connect Ethernet traffic generator to Ethernet port 1 of ASMi-53\_A and Ethernet port 1 of ASMi-53\_B
* Transmit flows according to the traffic description for 1min on both directions

|  |  |
| --- | --- |
| Traffic | Expected Results |
| **ETX-205** |
| Run traffic between ETX-205\_A port 3 and ETX-205\_B port 3Traffic: VLAN 1000 ; Rate 100Mbps | Total RX RATE on both sides is 100Mbps, 0 Packet loss |
| **ASMi-53** |
| Run traffic between ASMi-53\_A port 1 and ASMi-53\_B port 1Traffic: VLAN 500 ; Rate 10Mbps | Total RX RATE on both sides is 10Mbps, 0 Packet loss |

## E1 SATOP MEF8 – SDH

### Overview

This setup demonstrates:

* **TDM traffic over MEF-type PSN, using E1 SATOP encapsulation.**
The Pseudo Wire (PW) transfer E1 traffic from the ETX-205 E1 ports over its Ethernet ports.
Traffic from the ETX-205 enters the MP-4 which transport the ETH packets over the PSN network simulated by the ETX-5. The traffic is protected by the LAG.
* **Ethernet traffic over Ethernet networks.**
The Ethernet traffic coming from the ETX is forwarded to the MP-4, which transport the ETH packets over the PSM network simulated by the ETX-5. The traffic is protected by the LAG.
* **Ethernet traffic over SHDSL lines using the ASMi-53 SHDSL modem.**
Ethernet traffic coming from the SHDSL modem is forwarded to the MP-4 over SHDSL lines, which transport the Ethernet traffic over the SDH network.
* **E1 traffic over SHDSL lines.**
E1 traffic coming from the SHDSL modem is forwarded to the MP-4 over SHDSL lines, which transport the E1 traffic over the SDH network.

🖝 **E1 traffic from SHDSL modem is possible only with MP-4100M-16SHDSL/E1 card on the MP-4.
Please check RAD rollout in the distributer site to check availability**

### Creating Management and Services

#### ETX-5 Settings

1. Access ETX-5 unit via serial (baud rate 9600) and verify that the ETX-5300A-ETH/20XGE/SFP/H module appears as the actual installed module in slot 1 (Configuration> show config cards-summary)
2. Configure ETX-5 according to the scripts in [Appendix B.1](#b1):
* Factory default
* Management and Port Configuration
1. After running the scripts, verify the provisioned I/O modules are updated properly **(Configuration> show config cards-summary).**
* Local Management Setup configuration script.
1. Verify ping replies from the Management station towards of the ETX-5
2. Save the configuration of the ETX-5 device.

#### Megaplex-4100\_A Settings

1. Access the MP-4\_A unit via serial (baud rate 9600)
2. Configure the MP-4\_A according to the scripts in [Appendix B.2](#b2):
* Factory default
* Cards configuration
* Management configuration script
* Clocking
* Ethernet service from ETX-205\_A
* Ethernet service from SHDSL over SDH
* E1 unframed
1. Verify ping replies from the Management station towards MP-4\_A.
2. Save the configuration of the MP-4\_A device.

#### Megaplex-4100\_B Settings

1. Access the MP-4\_B unit via serial (baud rate 9600)
2. Configure the MP-4\_B according to the scripts in [Appendix B.3](#b3):
* Factory default
* Cards configuration
* Management configuration script
* Clocking
* Ethernet service from ETX-205\_B
* Ethernet service from SHDSL over SDH
* E1 unframed
1. Verify ping replies from the Management station towards MP-4\_B.
2. Save the configuration of the MP-4\_B device.

#### ETX-205\_A Settings

1. Access ETX-205 unit via serial (baud rate 9600)
2. Configure ETX-205 according to the scripts in [Appendix B.4](#b4):
* Factory default
* Queues Configuration
* Management configuration script
1. Verify ping replies from the Management station towards of the ETX-205\_A.
* E1 SATOP PW configuration
* Ethernet service
* E1 unframed
1. Save the configuration of the ETX-205\_A device.

#### ETX-205\_B Settings

1. Access ETX-205\_B unit via serial (baud rate 9600)
2. Configure ETX-205\_B according to the scripts in [Appendix B.5](#b5):
* Factory default
* Queues Configuration
* Management configuration script
1. Verify ping replies from the Management station towards of the ETX-205\_B.
* E1 SATOP PW configuration
* Ethernet service
1. Save the configuration of the ETX-205\_B device.

#### ASMi-53\_A Settings

1. Access ASMi-53\_A unit via serial (baud rate 9600)
2. Configure ASMi-53\_A according to the screenshots in [Appendix B.6](#b6):
* Factory default
* ASMi-53 – transparent modem
* E1 unframed
* Management
1. Verify ping replies from the Management station towards of the ASMi-53\_A.

#### ASMi-53\_B Settings

1. Access ASMi-53\_B unit via serial (baud rate 9600)
2. Configure ASMi-53\_B according to the screenshots in [Appendix B.7](#b7):
* Factory default
* ASMi-53 – transparent modem
* E1 unframed
* Management
1. Verify ping replies from the Management station towards of the ASMi-53\_B.

### Service and Management Tests

#### Management

|  |  |  |  |
| --- | --- | --- | --- |
| Test | Device | Expected results | Pass/fail |
| Verify ping replies from the Management station towards all devices | ETX-5 | Pings reply without timeouts |  |
| MP-4100\_A |  |
| MP-4100\_B |  |
| ETX-205\_A |  |
| ETX-205\_B |  |
| ASMi-53\_A |  |
| ASMi-53\_B |  |

#### Services

##### TDM

* Connect E1 tester to the E1 ports of ETX-205A and put physical loop on the E1 ports of ETX-205\_B
* Connect E1 tester to the E1 port of ASMi-53\_A and put physical loop on the E1 ports of ASMi-53\_B
* Run E1 traffic of 31 Time Slots with line-type G.732N (PCM31).

The ETX-205

|  |  |  |
| --- | --- | --- |
| Traffic | Expected Results | Pass/fail |
| Run data for 1 min on port 1 of ETX-205\_A.31 TS, line-type G.732N | Data is running without errors |  |
| Run data for 1 min on port 2 of ETX-205\_A.31 TS, line-type G.732N | Data is running without errors |  |
| Run data for 1 min on port 3 of ETX-205\_A.31 TS, line-type G.732N | Data is running without errors |  |
| Run data for 1 min on port 4 of ETX-205\_A.31 TS, line-type G.732N | Data is running without errors |  |
| Run data for 1 min on e1 port 1 of ASMi-53\_A.31 TS, line-type G.732N | Data is running without errors |  |
| Disconnect Ethernet port CL-A/1 on MP-4\_A | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Reconnect Ethernet port CL-A/1 on MP-4\_A | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Disconnect Ethernet port CL-B/1 on MP-4\_A | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Reconnect Ethernet port CL-B/1 on MP-4\_A | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Disconnect Ethernet port CL-A/1 on MP-4\_B | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Reconnect Ethernet port CL-A/1 on MP-4\_B | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Disconnect Ethernet port CL-B/1 on MP-4\_B | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Reconnect Ethernet port CL-B/1 on MP-4\_B | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |

##### Ethernet

* Connect Ethernet traffic generator to Ethernet port 3 of ETX-205\_A and Ethernet port 3 of ETX-205\_B
* Connect Ethernet traffic generator to Ethernet port 1 of ASMi-53\_A and Ethernet port 1 of ASMi-53\_B
* Transmit flows according to the traffic description for 1min on both directions

|  |  |
| --- | --- |
| Traffic | Expected Results |
| **ETX-205** |
| Run traffic between ETX-205\_A port 3 and ETX-205\_B port 3Traffic: VLAN 1000 ; Rate 100Mbps | Total RX RATE on both sides is 100Mbps, 0 Packet loss |
| Disconnect Ethernet port CL-A/1 on MP-4\_A | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Reconnect Ethernet port CL-A/1 on MP-4\_A | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Disconnect Ethernet port CL-B/1 on MP-4\_A | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Reconnect Ethernet port CL-B/1 on MP-4\_A | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Disconnect Ethernet port CL-A/1 on MP-4\_B | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Reconnect Ethernet port CL-A/1 on MP-4\_B | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Disconnect Ethernet port CL-B/1 on MP-4\_B | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Reconnect Ethernet port CL-B/1 on MP-4\_B | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| **ASMi-53** |
| Run traffic between ASMi-53\_A port 1 and ASMi-53\_B port 1Traffic: VLAN 500 ; Rate 10Mbps | Total RX RATE on both sides is 10Mbps, 0 Packet loss |

## T1 SATOP MEF8 – SONET

### Overview

This setup demonstrates:

* **TDM traffic over MEF-type PSN, using T1 SATOP encapsulation.**The Pseudo Wire (PW) transfer T1 traffic from the ETX-205 T1 ports over its Ethernet ports.
Traffic from the ETX-205 enters the MP-4 which transport the ETH packets over the PSN network simulated by the ETX-5. The traffic is protected by the LAG.
* **Ethernet traffic over Ethernet networks.**The Ethernet traffic coming from the ETX is forwarded to the MP-4, which transport the ETH packets over the PSM network simulated by the ETX-5. The traffic is protected by the LAG.
* **Ethernet traffic over SHDSL lines using the ASMi-53 SHDSL modem.**Ethernet traffic coming from the SHDSL modem is forwarded to the MP-4 over SHDSL lines, which transport the Ethernet traffic over the SONET network.

### Creating Management and Services

#### ETX-5 Settings

1. Access ETX-5 unit via serial (baud rate 9600) and verify that the ETX-5300A-ETH/20XGE/SFP/H module appears as the actual installed module in slot 1 (Configuration> show config cards-summary)
2. Configure ETX-5 according to the scripts in [Appendix C.1](#c1):
* Factory default
* Management and Port Configuration
1. After running the scripts, verify the provisioned I/O modules are updated properly **(Configuration> show config cards-summary).**
* Local Management Setup configuration script.
1. Verify ping replies from the Management station towards of the ETX-5
2. Save the configuration of the ETX-5 device.

#### Megaplex-4100\_A Settings

1. Access the MP-4\_A unit via serial (baud rate 9600)
2. Configure the MP-4\_A according to the scripts in [Appendix C.2](#c2):
* Frame type Sonet
* Cards configuration
* Management configuration script
* Clocking
* Ethernet service from ETX-205\_A
* Ethernet service from SHDSL over SONET
1. Verify ping replies from the Management station towards MP-4\_A.
2. Save the configuration of the MP-4\_A device.

#### Megaplex-4100\_B Settings

1. Access the MP-4\_B unit via serial (baud rate 9600)
2. Configure the MP-4\_B according to the scripts in [Appendix C.3](#c3):
* Frame type Sonet
* Cards configuration
* Management configuration script
* Clocking
* Ethernet service from ETX-205\_B
* Ethernet service from SHDSL over SONET
1. Verify ping replies from the Management station towards MP-4\_B.
2. Save the configuration of the MP-4\_B device.

#### ETX-205\_A Settings

1. Access ETX-205 unit via serial (baud rate 9600)
2. Configure ETX-205 according to the scripts in [Appendix C.4](#c4):
* Factory default
* Queues Configuration
* Management configuration script
1. Verify ping replies from the Management station towards of the ETX-205\_A.
* T1 SATOP PW configuration
* Ethernet service
* E1 unframed
1. Save the configuration of the ETX-205\_A device.

#### ETX-205\_B Settings

1. Access ETX-205\_B unit via serial (baud rate 9600)
2. Configure ETX-205\_B according to the scripts in [Appendix C.5](#c5):
* Factory default
* Queues Configuration
* Management configuration script
1. Verify ping replies from the Management station towards of the ETX-205\_B.
* T1 SATOP PW configuration
* Ethernet service
1. Save the configuration of the ETX-205\_B device.

#### ASMi-53\_A Settings

1. Access ASMi-53\_A unit via serial (baud rate 9600)
2. Configure ASMi-53\_A according to the screenshots in [Appendix C.6](#c6):
* Factory default
* ASMi-53 – transparent modem
* E1 unframed
* Management
1. Verify ping replies from the Management station towards of the ASMi-53\_A.

#### ASMi-53\_B Settings

1. Access ASMi-53\_B unit via serial (baud rate 9600)
2. Configure ASMi-53\_B according to the screenshots in [Appendix C.7](#c7):
* Factory default
* ASMi-53 – transparent modem
* E1 unframed
* Management
1. Verify ping replies from the Management station towards of the ASMi-53\_B.

### Service and Management Tests

#### Management

|  |  |  |  |
| --- | --- | --- | --- |
| Test | Device | Expected results | Pass/fail |
| Verify ping replies from the Management station towards all devices | ETX-5 | Pings reply without timeouts |  |
| MP-4100\_A |  |
| MP-4100\_B |  |
| ETX-205\_A |  |
| ETX-205\_B |  |
| ASMi-53\_A |  |
| ASMi-53\_B |  |

#### Services

##### TDM

* Connect E1 tester to the E1 ports of ETX-205A and put physical loop on the E1 ports of ETX-205\_B
* Connect E1 tester to the E1 port of ASMi-53\_A and put physical loop on the E1 ports of ASMi-53\_B
* Run E1 traffic of 31 Time Slots with line-type G.732N (PCM31).

|  |  |  |
| --- | --- | --- |
| Traffic | Expected Results | Pass/fail |
| Run data for 1 min on port 1 of ETX-205\_A.24 TS, line-type ESF | Data is running without errors |  |
| Run data for 1 min on port 2 of ETX-205\_A.24 TS, line-type ESF | Data is running without errors |  |
| Run data for 1 min on port 3 of ETX-205\_A.24 TS, line-type ESF | Data is running without errors |  |
| Run data for 1 min on port 4 of ETX-205\_A.24 TS, line-type ESF | Data is running without errors |  |
| Disconnect Ethernet port CL-A/1 on MP-4\_A | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Reconnect Ethernet port CL-A/1 on MP-4\_A | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Disconnect Ethernet port CL-B/1 on MP-4\_A | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Reconnect Ethernet port CL-B/1 on MP-4\_A | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Disconnect Ethernet port CL-A/1 on MP-4\_B | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Reconnect Ethernet port CL-A/1 on MP-4\_B | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Disconnect Ethernet port CL-B/1 on MP-4\_B | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |
| Reconnect Ethernet port CL-B/1 on MP-4\_B | Data is running without errors on all E1 ports**Note:** errors are allowed during transition |  |

##### Ethernet

* Connect Ethernet traffic generator to Ethernet port 3 of ETX-205\_A and Ethernet port 3 of ETX-205\_B
* Connect Ethernet traffic generator to Ethernet port 1 of ASMi-53\_A and Ethernet port 1 of ASMi-53\_B
* Transmit flows according to the traffic description for 1min on both directions

|  |  |
| --- | --- |
| Traffic | Expected Results |
| **ETX-205** |
| Run traffic between ETX-205\_A port 3 and ETX-205\_B port 3Traffic: VLAN 1000 ; Rate 100Mbps | Total RX RATE on both sides is 100Mbps, 0 Packet loss |
| Disconnect Ethernet port CL-A/1 on MP-4\_A | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Reconnect Ethernet port CL-A/1 on MP-4\_A | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Disconnect Ethernet port CL-B/1 on MP-4\_A | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Reconnect Ethernet port CL-B/1 on MP-4\_A | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Disconnect Ethernet port CL-A/1 on MP-4\_B | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Reconnect Ethernet port CL-A/1 on MP-4\_B | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Disconnect Ethernet port CL-B/1 on MP-4\_B | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| Reconnect Ethernet port CL-B/1 on MP-4\_B | Total RX RATE on both sides is 100Mbps, 0 Packet loss**Note:** errors are allowed during transition |
| **ASMi-53** |
| Run traffic between ASMi-53\_A port 1 and ASMi-53\_B port 1Traffic: VLAN 500 ; Rate 10Mbps | Total RX RATE on both sides is 10Mbps, 0 Packet loss |

1. Appendix A – CESoPSN UDP/IP - SDH
	1. ETX-5 Settings

##### Factory default

admin factory-default

##### Management and Port Configuration

configure port ethernet 1/13 queue-group profile

configure port ethernet 1/14 queue-group profile

configure port ethernet 1/3 no queue-group profile

configure port ethernet 1/4 no queue-group profile

configure port ethernet 1/3 no shutdown

configure port ethernet 1/4 no shutdown

configure port ethernet 1/13 no shutdown

configure port ethernet 1/14 no shutdown

configure port lag 2

mode load-balance

bind ethernet 1/3

bind ethernet 1/4

lacp tx-activity active tx-speed slow

distribution-method dest-mac

anchor-port ethernet 1/3

queue-group profile "q\_group\_2\_level\_default\_IO1/3"

no shutdown

exit all

configure port lag 3

mode load-balance

bind ethernet 1/13

bind ethernet 1/14

lacp tx-activity active tx-speed slow

distribution-method dest-mac

anchor-port ethernet 1/13

queue-group profile "q\_group\_2\_level\_default\_IO1/13"

no shutdown

exit all

configure port svi 57 bridge

exit

configure port svi 58 bridge

exit all

configure bridge 1

port 4

 bind svi 57

 no shutdown

 exit

port 5

 bind svi 58

 no shutdown

 exit

echo "VLAN Configuration"

VLAN Configuration

 vlan 84

 tagged-egress 4,5

 exit all

configure flows

classifier-profile ClassUntagged match-any match untagged

classifier-profile all match-any match all

classifier-profile VLAN\_84 match-any match vlan 84

flow LACP\_IO\_LAG\_2\_sap

 classifier "ClassUntagged"

 l2cp profile "l2cpLAG\_OAM"

 ingress-port lag 2

 egress-port sap 1/1/49 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow LACP\_IO\_LAG\_2\_sap\_eth\_1\_20

 classifier all

 ingress-port sap 1/1/49

 egress-port ethernet 1/20 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow LACP\_IO\_LAG\_3\_sap

 classifier "ClassUntagged"

 l2cp profile "l2cpLAG\_OAM"

 ingress-port lag 3

 egress-port sap 1/2/60 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow LACP\_IO\_LAG\_3\_sap\_eth\_1\_10

 classifier all

 ingress-port sap 1/2/60

 egress-port ethernet 1/10 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow "mng\_LAG\_2"

 classifier "VLAN\_84"

 ingress-port lag 2

 egress-port sap 1/1/50 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow "mng\_SAP\_1\_1\_50\_to\_bridge"

 classifier "VLAN\_84"

 ingress-port sap 1/1/50

 egress-port svi 57

 no shutdown

 exit

flow "svi\_57\_LAG\_2"

 classifier "VLAN\_84"

 ingress-port svi 57

 egress-port lag 2 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow "mng\_LAG\_3"

 classifier "VLAN\_84"

 ingress-port lag 3

 egress-port sap 1/2/61 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow "mng\_SAP\_1\_2\_61\_to\_bridge"

 classifier "VLAN\_84"

 ingress-port sap 1/2/61

 egress-port svi 58

 no shutdown

 exit

flow "svi\_58\_LAG\_3"

 classifier "VLAN\_84"

 ingress-port svi 58

 egress-port lag 3 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit all

save

##### Ethernet Services

exit all

configure bridge 1

 vlan 400

 tagged-egress 4,5

 exit

 vlan 500

 tagged-egress 4,5

 exit

 vlan 1000

 tagged-egress 4,5

 exit all

configure flows

 configure flows classifier-profile v400 match-any match vlan 400

 configure flows classifier-profile v500 match-any match vlan 500

 configure flows classifier-profile v1000 match-any match vlan 1000

flow "v400\_LAG\_2"

 classifier "v400"

 ingress-port lag 2

 egress-port sap 1/1/50 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v400\_SAP\_1\_1\_50\_to\_bridge"

 classifier "v400"

 ingress-port sap 1/1/50

 egress-port svi 57

 no shutdown

 exit

flow "v400\_svi\_57\_LAG\_2"

 classifier "v400"

 ingress-port svi 57

 egress-port lag 2 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v500\_LAG\_2"

 classifier "v500"

 ingress-port lag 2

 egress-port sap 1/1/50 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v500\_SAP\_1\_1\_50\_to\_bridge"

 classifier "v500"

 ingress-port sap 1/1/50

 egress-port svi 57

 no shutdown

 exit

flow "v500\_svi\_57\_LAG\_2"

 classifier "v500"

 ingress-port svi 57

 egress-port lag 2 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v400\_LAG\_3"

 classifier "v400"

 ingress-port lag 3

 egress-port sap 1/2/61 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v400\_SAP\_1\_2\_61\_to\_bridge"

 classifier "v400"

 ingress-port sap 1/2/61

 egress-port svi 58

 no shutdown

 exit

flow "v400\_svi\_58\_LAG\_3"

 classifier "v400"

 ingress-port svi 58

 egress-port lag 3 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit all

flow "v500\_LAG\_3"

 classifier "v500"

 ingress-port lag 3

 egress-port sap 1/2/61 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v500\_SAP\_1\_2\_61\_to\_bridge"

 classifier "v500"

 ingress-port sap 1/2/61

 egress-port svi 58

 no shutdown

 exit

flow "v500\_svi\_58\_LAG\_3"

 classifier "v500"

 ingress-port svi 58

 egress-port lag 3 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit all

flow "v1000\_LAG\_2"

 classifier "v1000"

 ingress-port lag 2

 egress-port sap 1/1/50 queue-map-profile "QueueMapDefaultProfile" block 0/3

 no shutdown

 exit

flow "v1000\_SAP\_1\_1\_50\_to\_bridge"

 classifier "v1000"

 ingress-port sap 1/1/50

 egress-port svi 57

 no shutdown

 exit

flow "v1000\_svi\_57\_LAG\_2"

 classifier "v1000"

 ingress-port svi 57

 egress-port lag 2 queue-map-profile "QueueMapDefaultProfile" block 0/3

 no shutdown

 exit

flow "v1000\_LAG\_3"

 classifier "v1000"

 ingress-port lag 3

 egress-port sap 1/2/61 queue-map-profile "QueueMapDefaultProfile" block 0/3

 no shutdown

 exit

flow "v1000\_SAP\_1\_2\_61\_to\_bridge"

 classifier "v1000"

 ingress-port sap 1/2/61

 egress-port svi 58

 no shutdown

 exit

flow "v1000\_svi\_58\_LAG\_3"

 classifier "v1000"

 ingress-port svi 58

 egress-port lag 3 queue-map-profile "QueueMapDefaultProfile" block 0/3

 no shutdown

 exit all

save

* 1. Megaplex-4\_A Settings

##### Factory default

admin factory-default

##### Cards configuration

configure slot cl-a card-type cl cl2-622gbea

configure slot cl-b card-type cl cl2-622gbea

configure slot 1 card-type eth meth

configure slot 5 card-type dsl sh16

commit

save

##### Management configuration script

################################################################

######## QUALITY OF SERVICE ########

################################################################

##### Define a new Queue Group profile #####

configure qos queue-block-profile Eth

exit all

configure qos shaper-profile 1000 bandwidth cir 1000000

configure qos queue-group-profile 1000

queue-block 0/1

shaper profile 1000

profile Eth

exit all

configure qos

queue-map-profile P\_bit classification p-bit

map 0 to-queue 7

map 1 to-queue 6

map 2 to-queue 5

map 3 to-queue 4

map 4 to-queue 3

map 5 to-queue 2

map 6 to-queue 1

map 7 to-queue 0

exit all

################################################################

######## PORT CONFIGURATION ########

################################################################

configure port svi 1 no shutdown

configure port l2cp-profile l2cpLAG\_OAM mac 01-80-C2-00-00-02 peer

configure port ethernet cl-a/1 l2cp profile l2cpLAG\_OAM

configure port ethernet cl-b/1 l2cp profile l2cpLAG\_OAM

configure port lag 1

bind ethernet cl-a/1

bind ethernet cl-b/1

lacp tx-activity passive tx-speed slow

distribution-method dest-mac

queue-group profile 1000

no shutdown

exit all

configure port ethernet cl-a/1 no shutdown

configure port ethernet cl-b/1 no shutdown

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 vlan-aware

configure bridge 1

aging-time 60

port 1

no shutdown

exit

port 2

no shutdown

exit

vlan 84

tagged-egress 1,2

exit

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile V84 match-any match vlan 84

configure flows classifier-profile all match-any match all

configure flows flow mng\_in classifier V84

configure flows flow mng\_in ingress-port lag 1

configure flows flow mng\_in egress-port bridge-port 1 1

configure flows flow mng\_in reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow mng\_in no shutdown

configure flows flow mng\_router\_out classifier V84

configure flows flow mng\_router\_out ingress bridge-port 1 2

configure flows flow mng\_router\_out egress-port svi 1

configure flows flow mng\_router\_out vlan-tag pop vlan

configure flows flow mng\_router\_out no shutdown

configure flows flow mng\_router\_in classifier all

configure flows flow mng\_router\_in ingress svi 1

configure flows flow mng\_router\_in egress-port bridge-port 1 2

configure flows flow mng\_router\_in vlan-tag push vlan 84 p-bit fixed 1

configure flows flow mng\_router\_in no shutdown

################################################################

######## MNG CONFIGURATION ########

################################################################

configure router 1

interface 1

bind svi 1

address 172.18.171.180/24

no shutdown

exit

static-route 0.0.0.0/0 address 172.18.171.1

exit all

configure system name MP\_A

commit

save

##### clocking

#External 2mhz clock

configure system clock station cl-a/1 interface-type 2mhz

configure system clock station cl-a/1 no shutdown

configure system clock station cl-b/1 interface-type 2mhz

configure system clock station cl-b/1 no shutdown

configure system clock domain 1

source 1 station cl-a/1

 priority 1

 quality-level prc

 wait-to-restore 0

 exit

source 2 station cl-b/1

 priority 2

 quality-level prc

 wait-to-restore 0

exit all

#SyncE for ETX205\_TDM

configure port ethernet 1/1

l2cp profile l2cpLAG\_OAM

tx-ssm

exit all

commit

##### Ethernet service from ETX-205\_A

configure port ethernet 1/1 queue-group profile 1000

configure port ethernet 1/1 no shutdown

configure qos

policer-profile 10m

bandwidth cir 10000 cbs 65535

exit all

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 port 3 no shutdown

exit all

configure bridge 1

vlan 84

tagged-egress 3

exit

vlan 400

tagged-egress 1,3

exit

vlan 1000

tagged-egress 1,3

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile V400 match-any match vlan 400

configure flows classifier-profile V1000 match-any match vlan 1000

configure flows flow ETH\_205\_MNG classifier V84

configure flows flow ETH\_205\_MNG no policer

configure flows flow ETH\_205\_MNG ingress-port ethernet 1/1

configure flows flow ETH\_205\_MNG egress-port bridge-port 1 3

configure flows flow ETH\_205\_MNG reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_205\_MNG no shutdown

configure flows flow ETH\_V400\_PW classifier V400

configure flows flow ETH\_V400\_PW no policer

configure flows flow ETH\_V400\_PW ingress-port ethernet 1/1

configure flows flow ETH\_V400\_PW egress-port bridge-port 1 3

configure flows flow ETH\_V400\_PW reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V400\_PW no shutdown

configure flows flow ETH\_V400\_PW\_out classifier V400

configure flows flow ETH\_V400\_PW\_out no policer

configure flows flow ETH\_V400\_PW\_out ingress-port lag 1

configure flows flow ETH\_V400\_PW\_out egress-port bridge-port 1 1

configure flows flow ETH\_V400\_PW\_out reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V400\_PW\_out no shutdown

configure flows flow ETH\_V1000\_Data classifier V1000

configure flows flow ETH\_V1000\_Data policer profile 10m

configure flows flow ETH\_V1000\_Data ingress-port ethernet 1/1

configure flows flow ETH\_V1000\_Data egress-port bridge-port 1 3

configure flows flow ETH\_V1000\_Data reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V1000\_Data no shutdown

configure flows flow ETH\_V1000\_Data\_out classifier V1000

configure flows flow ETH\_V1000\_Data\_out no policer

configure flows flow ETH\_V1000\_Data\_out ingress-port lag 1

configure flows flow ETH\_V1000\_Data\_out egress-port bridge-port 1 1

configure flows flow ETH\_V1000\_Data\_out reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V1000\_Data\_out no shutdown

commit

save

##### Ethernet service from SHDSL over SDH

################################################################

######## QUALITY OF SERVICE ########

################################################################

configure qos

queue-block-profile shdsl

exit all

configure qos shaper-profile 11392 bandwidth cir 11392

configure qos queue-group-profile shdsl\_4wire

queue-block 0/1 profile shdsl

queue-block 0/1 shaper profile 11392

exit all

################################################################

############ PORT CONFIGURATION ##################

################################################################

configure port shdsl 5/1 no line-prob

configure port shdsl 5/1 data-rate maximum 11408

configure port shdsl 5/1 stu central

configure port shdsl 5/1 tc hdlc

configure port shdsl 5/1 wires 4

configure port shdsl 5/1 far-end-type non-managed

configure port shdsl 5/1 no shutdown

configure port pcs 5/1 bind shdsl 5/1

configure port pcs 5/1 queue-group profile shdsl\_4wire

configure port pcs 5/1 no shutdown

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 port 51 no shutdown

configure bridge 1 vlan-aware

configure bridge 1

vlan 500

tagged-egress 1,51

exit

vlan 84

tagged-egress 51

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile vlan500 match-any match vlan 500

configure flows flow vlan\_mng\_pcs\_5\_1 classifier V84

configure flows flow vlan\_mng\_pcs\_5\_1 ingress-port pcs 5/1

configure flows flow vlan\_mng\_pcs\_5\_1 egress-port bridge-port 1 51

configure flows flow vlan\_mng\_pcs\_5\_1 reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow vlan\_mng\_pcs\_5\_1 no shutdown

configure flows flow vlan\_500\_pcs\_5\_1 classifier vlan500

configure flows flow vlan\_500\_pcs\_5\_1 ingress-port pcs 5/1

configure flows flow vlan\_500\_pcs\_5\_1 egress-port bridge-port 1 51

configure flows flow vlan\_500\_pcs\_5\_1 reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow vlan\_500\_pcs\_5\_1 no shutdown

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/2/3

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/1

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/2

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/3

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/2/1/1

configure port vcg cl-a/2 no shutdown

configure port gfp cl-a/2 bind vcg cl-a/2

configure port gfp cl-a/2 no shutdown

configure qos queue-block-profile DSL

exit

shaper-profile DSL bandwidth cir 10240

queue-group-profile DSL

queue-block 0/1

profile DSL

shaper profile DSL

exit all

configure port logical-mac cl-a/2 bind gfp cl-a/2

configure port logical-mac cl-a/2 queue-group profile DSL

configure port logical-mac cl-a/2 no shutdown

configure bridge 1

 port 5

 no shutdown

 exit

 vlan 500

 tagged-egress 5

 exit all

configure flows flow "vcq\_V500\_DSL\_out"

 classifier "vlan500"

 no policer

 ingress-port logical-mac cl-a/2

 egress-port bridge-port 1 5

 reverse-direction queue-map-profile "P\_bit" block 0/1

 no shutdown

 exit

commit

save

##### E1 Unframed

🖝 **E1 traffic from SHDSL modem is possible only with MP-4100M-16SHDSL/E1 card on the MP-4.
Please check RAD rollout in the distributer site to check availability**

configure port e1-i 5/1

line-type unframed

no shutdown

exit all

configure cross-connect

sdh-sonet vc12-vt2 cl-a/1/1/2/1/2 e1-i 5/1

* 1. Megaplex-4\_B Settings

##### Factory default

admin factory-default

##### Cards configuration

configure slot cl-a card-type cl cl2-622gbea

configure slot cl-b card-type cl cl2-622gbea

configure slot 1 card-type eth meth

configure slot 5 card-type dsl sh16

commit

save

##### Management configuration script

################################################################

######## QUALITY OF SERVICE ########

################################################################

##### Define a new Queue Group profile #####

configure qos queue-block-profile Eth

exit all

configure qos shaper-profile 1000 bandwidth cir 1000000

configure qos queue-group-profile 1000

queue-block 0/1

shaper profile 1000

profile Eth

exit all

configure qos

queue-map-profile P\_bit classification p-bit

map 0 to-queue 7

map 1 to-queue 6

map 2 to-queue 5

map 3 to-queue 4

map 4 to-queue 3

map 5 to-queue 2

map 6 to-queue 1

map 7 to-queue 0

exit all

################################################################

######## PORT CONFIGURATION ########

################################################################

configure port svi 1 no shutdown

configure port l2cp-profile l2cpLAG\_OAM mac 01-80-C2-00-00-02 peer

configure port ethernet cl-a/1 l2cp profile l2cpLAG\_OAM

configure port ethernet cl-b/1 l2cp profile l2cpLAG\_OAM

configure port lag 1

bind ethernet cl-a/1

bind ethernet cl-b/1

lacp tx-activity passive tx-speed slow

distribution-method dest-mac

queue-group profile 1000

no shutdown

exit all

configure port ethernet cl-a/1 no shutdown

configure port ethernet cl-b/1 no shutdown

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 vlan-aware

configure bridge 1

aging-time 60

port 1

no shutdown

exit

port 2

no shutdown

exit

vlan 84

tagged-egress 1,2

exit

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile V84 match-any match vlan 84

configure flows classifier-profile all match-any match all

configure flows flow mng\_in classifier V84

configure flows flow mng\_in ingress-port lag 1

configure flows flow mng\_in egress-port bridge-port 1 1

configure flows flow mng\_in reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow mng\_in no shutdown

configure flows flow mng\_router\_out classifier V84

configure flows flow mng\_router\_out ingress bridge-port 1 2

configure flows flow mng\_router\_out egress-port svi 1

configure flows flow mng\_router\_out vlan-tag pop vlan

configure flows flow mng\_router\_out no shutdown

configure flows flow mng\_router\_in classifier all

configure flows flow mng\_router\_in ingress svi 1

configure flows flow mng\_router\_in egress-port bridge-port 1 2

configure flows flow mng\_router\_in vlan-tag push vlan 84 p-bit fixed 1

configure flows flow mng\_router\_in no shutdown

################################################################

######## MNG CONFIGURATION ########

################################################################

configure router 1

interface 1

bind svi 1

address 172.18.171.181/24

no shutdown

exit

static-route 0.0.0.0/0 address 172.18.171.1

exit all

configure system name MP\_B

commit

##### clocking

#External 2mhz clock

configure system clock station cl-a/1 interface-type 2mhz

configure system clock station cl-a/1 no shutdown

configure system clock station cl-b/1 interface-type 2mhz

configure system clock station cl-b/1 no shutdown

configure system clock domain 1

source 1 station cl-a/1

 priority 1

 quality-level prc

 wait-to-restore 0

 exit

source 2 station cl-b/1

 priority 2

 quality-level prc

 wait-to-restore 0

exit all

#SyncE for ETX205\_TDM

configure port ethernet 1/1

l2cp profile l2cpLAG\_OAM

tx-ssm

exit all

commit

##### Ethernet service from ETX-205\_B

configure port ethernet 1/1 queue-group profile 1000

configure port ethernet 1/1 no shutdown

configure qos

policer-profile 10m

bandwidth cir 10000 cbs 65535

exit all

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 port 3 no shutdown

exit all

configure bridge 1

vlan 84

tagged-egress 3

exit

vlan 400

tagged-egress 1,3

exit

vlan 1000

tagged-egress 1,3

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile V400 match-any match vlan 400

configure flows classifier-profile V1000 match-any match vlan 1000

configure flows flow ETH\_205\_MNG classifier V84

configure flows flow ETH\_205\_MNG no policer

configure flows flow ETH\_205\_MNG ingress-port ethernet 1/1

configure flows flow ETH\_205\_MNG egress-port bridge-port 1 3

configure flows flow ETH\_205\_MNG reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_205\_MNG no shutdown

configure flows flow ETH\_V400\_PW classifier V400

configure flows flow ETH\_V400\_PW no policer

configure flows flow ETH\_V400\_PW ingress-port ethernet 1/1

configure flows flow ETH\_V400\_PW egress-port bridge-port 1 3

configure flows flow ETH\_V400\_PW reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V400\_PW no shutdown

configure flows flow ETH\_V400\_PW\_out classifier V400

configure flows flow ETH\_V400\_PW\_out no policer

configure flows flow ETH\_V400\_PW\_out ingress-port lag 1

configure flows flow ETH\_V400\_PW\_out egress-port bridge-port 1 1

configure flows flow ETH\_V400\_PW\_out reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V400\_PW\_out no shutdown

configure flows flow ETH\_V1000\_Data classifier V1000

configure flows flow ETH\_V1000\_Data policer profile 10m

configure flows flow ETH\_V1000\_Data ingress-port ethernet 1/1

configure flows flow ETH\_V1000\_Data egress-port bridge-port 1 3

configure flows flow ETH\_V1000\_Data reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V1000\_Data no shutdown

configure flows flow ETH\_V1000\_Data\_out classifier V1000

configure flows flow ETH\_V1000\_Data\_out no policer

configure flows flow ETH\_V1000\_Data\_out ingress-port lag 1

configure flows flow ETH\_V1000\_Data\_out egress-port bridge-port 1 1

configure flows flow ETH\_V1000\_Data\_out reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V1000\_Data\_out no shutdown

commit

save

##### Ethernet service from SHDSL over SDH

################################################################

######## ########

#### SCRIPT FOR VS-SHDSL on Ethernet port #####

######## ########

################################################################

################################################################

######## QUALITY OF SERVICE ########

################################################################

configure qos

queue-block-profile shdsl

exit all

configure qos shaper-profile 11392 bandwidth cir 11392

configure qos queue-group-profile shdsl\_4wire

queue-block 0/1 profile shdsl

queue-block 0/1 shaper profile 11392

exit all

################################################################

############ PORT CONFIGURATION ##################

################################################################

configure port shdsl 5/1 no line-prob

configure port shdsl 5/1 data-rate maximum 11408

configure port shdsl 5/1 stu central

configure port shdsl 5/1 tc hdlc

configure port shdsl 5/1 wires 4

configure port shdsl 5/1 far-end-type non-managed

configure port shdsl 5/1 no shutdown

configure port pcs 5/1 bind shdsl 5/1

configure port pcs 5/1 queue-group profile shdsl\_4wire

configure port pcs 5/1 no shutdown

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 port 51 no shutdown

configure bridge 1 vlan-aware

configure bridge 1

vlan 500

tagged-egress 1,51

exit

vlan 84

tagged-egress 51

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile vlan500 match-any match vlan 500

configure flows flow vlan\_mng\_pcs\_5\_1 classifier V84

configure flows flow vlan\_mng\_pcs\_5\_1 ingress-port pcs 5/1

configure flows flow vlan\_mng\_pcs\_5\_1 egress-port bridge-port 1 51

configure flows flow vlan\_mng\_pcs\_5\_1 reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow vlan\_mng\_pcs\_5\_1 no shutdown

configure flows flow vlan\_500\_pcs\_5\_1 classifier vlan500

configure flows flow vlan\_500\_pcs\_5\_1 ingress-port pcs 5/1

configure flows flow vlan\_500\_pcs\_5\_1 egress-port bridge-port 1 51

configure flows flow vlan\_500\_pcs\_5\_1 reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow vlan\_500\_pcs\_5\_1 no shutdown

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/2/3

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/1

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/2

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/3

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/2/1/1

configure port vcg cl-a/2 no shutdown

configure port gfp cl-a/2 bind vcg cl-a/2

configure port gfp cl-a/2 no shutdown

configure qos queue-block-profile DSL

exit

shaper-profile DSL bandwidth cir 10240

queue-group-profile DSL

queue-block 0/1

profile DSL

shaper profile DSL

exit all

configure port logical-mac cl-a/2 bind gfp cl-a/2

configure port logical-mac cl-a/2 queue-group profile DSL

configure port logical-mac cl-a/2 no shutdown

configure bridge 1

port 5

no shutdown

exit

vlan 500

tagged-egress 5

exit all

configure flows flow "vcg\_V500\_DSL\_out"

 classifier "vlan500"

 no policer

 ingress-port logical-mac cl-a/2

 egress-port bridge-port 1 5

 reverse-direction queue-map-profile "P\_bit" block 0/1

 no shutdown

 exit

commit

save

##### E1 Unframed

🖝 **E1 traffic from SHDSL modem is possible only with MP-4100M-16SHDSL/E1 card on the MP-4.
Please check RAD rollout in the distributer site to check availability**

configure port e1-i 5/1

line-type unframed

no shutdown

exit all

configure cross-connect

sdh-sonet vc12-vt2 cl-a/1/1/2/1/2 e1-i 5/1

* 1. ETX-205\_A Settings

##### Factory default

admin factory-default

##### Queues Configuration

exit all

configure qos queue-group-profile QGN1

queue-block 0/3

exit all

configure port eth 1 queue-group profile QGN1

exit all

configure qos queue-group-profile QGN2

exit all

configure port eth 2 queue-group profile QGN2

exit all

configure qos queue-group-profile QGN3

exit all

configure port eth 3 queue-group profile QGN3

exit all

configure qos queue-group-profile QGN4

exit all

configure port eth 4 queue-group profile QGN4

exit all

configure qos queue-group-profile QGN5

exit all

configure port eth 5 queue-group profile QGN5

exit all

configure qos queue-group-profile QGN6

exit all

configure port eth 6 queue-group profile QGN6

exit all

save

##### Management configuration script

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*SNMP Configuration\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure system name "ETX-205\_A"

exit all

configure management

snmp

target-params "PC\_69"

 message-processing-model snmpv3

 version usm

 security name "initial" level no-auth-no-priv

 no shutdown

exit

target "a"

 target-params "PC\_69"

 address udp-domain 172.17.150.69

 no shutdown

 tag-list "unmasked"

 trap-sync-group 1

exit

config-change-notification

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END SNMP Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Inband MNG \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port svi 1

no shutdown

exit all

configure flows classifier-profile "all" match-any match all

configure flows classifier-profile "VLAN\_84" match-any match vlan 84

configure flows flow "Eth\_1\_svi\_1"

 classifier "VLAN\_84"

 no policer

 vlan-tag pop vlan

 ingress-port ethernet 1

 egress-port svi 1 queue 0

 no shutdown

exit all

configure flows flow "svi\_1\_Eth\_1"

 classifier "all"

 no policer

 ingress-port svi 1

 egress-port ethernet 1 queue 0 block 0/1

 vlan-tag push vlan 84 p-bit fixed 0

 no shutdown

exit all

configure router 1

name "Router#1"

interface 1

 address 172.18.171.182/24

 bind svi 1

 no shutdown

exit

static-route 0.0.0.0/0 address 172.18.171.1

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END Inband MNG \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Save

##### CESoPSN PW configuration

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* SVI for PW \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port svi 2

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PW Flows \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure flows

classifier-profile match\_all match-any

match all

exit all

configure flows

classifier-profile VLAN400 match-any

match vlan 400

exit all

configure flows flow "p1\_svi2"

classifier "VLAN400"

vlan-tag pop vlan

ingress-port ethernet 1

egress-port svi 2 queue 0

no shutdown

exit all

configure flows flow "svi2\_p1"

classifier "match\_all"

vlan-tag push vlan 400 p-bit fixed 7

ingress-port svi 2

egress-port ethernet 1 queue 0 block 0/2

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PW peer \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure peer 1 ip 10.10.10.9 name ETX\_205\_REMOTE

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* DS1 - Port Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port ds1 1

frame-type e1

exit all

configure port ds1 2

frame-type e1

exit all

configure port ds1 3

frame-type e1

exit all

configure port ds1 4

frame-type e1

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PWE - Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure pwe pw 1 type ces-psn-data psn udp-over-ip

peer 1

label in 1 out 1

vlan priority 0

tdm-payload size 248 rate 31

jitter-buffer 15000

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 2 type ces-psn-data psn udp-over-ip

peer 1

label in 2 out 2

vlan priority 0

tdm-payload size 248 rate 31

jitter-buffer 15000

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 3 type ces-psn-data psn udp-over-ip

peer 1

label in 3 out 3

vlan priority 0

tdm-payload size 248 rate 31

jitter-buffer 15000

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 4 type ces-psn-data psn udp-over-ip

peer 1

label in 4 out 4

vlan priority 0

tdm-payload size 248 rate 31

jitter-buffer 15000

psn-oos 1-bit

pm-enable

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* e1 - Port Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port

l2cp-profile "SyncE"

mac 0x02 peer

exit all

configure port ethernet 1

tx-ssm

l2cp profile SyncE

exit all

configure system clock domain 1

 sync-network-type 1

 quality min-level-station sec

 mode auto

 force-t4-as-t0

 echo "Clock Source Configuration"

# Clock Source Configuration

 source 1 rx-port ethernet 1

 priority 2

 quality-level ssm-based

 wait-to-restore 0

 hold-off 300

exit all

configure port e1 1

no shutdown

tx-clock-source domain 1

line-type g732n

exit all

configure port e1 2

no shutdown

tx-clock-source domain 1

line-type g732n

exit all

configure port e1 3

no shutdown

tx-clock-source domain 1

line-type g732n

exit all

configure port e1 4

no shutdown

tx-clock-source domain 1

line-type g732n

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Cross-connect - Configuration \*\*\*\*\*\*\*\*\*\*\*

configure cross-connect pw-tdm pw 1 e1 1 time-slots 1..31

configure cross-connect pw-tdm pw 2 e1 2 time-slots 1..31

configure cross-connect pw-tdm pw 3 e1 3 time-slots 1..31

configure cross-connect pw-tdm pw 4 e1 4 time-slots 1..31

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Router interface \*\*\*\*\*\*\*\*\*\*\*

configure router 1

name "Router#1"

interface 2

 address 10.10.10.8/24

 bind svi 2

 no management-access

 no shutdown

exit

exit all

save

##### Ethernet service

configure flows classifier-profile "VLAN\_1000" match-any match vlan 1000

configure flows flow "Eth\_1\_Eth\_3"

 classifier "VLAN\_1000"

 no policer

 ingress-port ethernet 1

 egress-port ethernet 3 queue 0 block 0/1

 vlan-tag pop vlan

 no shutdown

exit all

configure flows flow "Eth\_3\_Eth\_1"

 classifier "all"

 ingress-port ethernet 3

 egress-port ethernet 1 queue 0 block 0/3

 vlan-tag push vlan 1000 p-bit fixed 0

 no shutdown

exit all

save

* 1. ETX-205\_B Settings

##### Factory default

admin factory-default

##### Queues Configuration

exit all

configure qos queue-group-profile QGN1

queue-block 0/3

exit all

configure port eth 1 queue-group profile QGN1

exit all

configure qos queue-group-profile QGN2

exit all

configure port eth 2 queue-group profile QGN2

exit all

configure qos queue-group-profile QGN3

exit all

configure port eth 3 queue-group profile QGN3

exit all

configure qos queue-group-profile QGN4

exit all

configure port eth 4 queue-group profile QGN4

exit all

configure qos queue-group-profile QGN5

exit all

configure port eth 5 queue-group profile QGN5

exit all

configure qos queue-group-profile QGN6

exit all

configure port eth 6 queue-group profile QGN6

exit all

save

##### Management configuration script

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*SNMP Configuration\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure system name "ETX-205\_B"

exit all

configure management

snmp

target-params "PC\_69"

 message-processing-model snmpv3

 version usm

 security name "initial" level no-auth-no-priv

 no shutdown

exit

target "a"

 target-params "PC\_69"

 address udp-domain 172.17.150.69

 no shutdown

 tag-list "unmasked"

 trap-sync-group 1

exit

config-change-notification

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END SNMP Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Inband MNG \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port svi 1

no shutdown

exit all

configure flows classifier-profile "all" match-any match all

configure flows classifier-profile "VLAN\_84" match-any match vlan 84

configure flows flow "Eth\_1\_svi\_1"

 classifier "VLAN\_84"

 no policer

 vlan-tag pop vlan

 ingress-port ethernet 1

 egress-port svi 1 queue 0

 no shutdown

exit all

configure flows flow "svi\_1\_Eth\_1"

 classifier "all"

 no policer

 ingress-port svi 1

 egress-port ethernet 1 queue 0 block 0/1

 vlan-tag push vlan 84 p-bit fixed 0

 no shutdown

exit all

configure router 1

name "Router#1"

interface 1

 address 172.18.171.183/24

 bind svi 1

 no shutdown

exit

static-route 0.0.0.0/0 address 172.18.171.1

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END Inband MNG \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

save

##### CESoPSN PW configuration

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* SVI for PW \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port svi 2

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PW Flows \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure flows

classifier-profile match\_all match-any

match all

exit all

configure flows

classifier-profile VLAN400 match-any

match vlan 400

exit all

configure flows flow "p1\_svi2"

classifier "VLAN400"

vlan-tag pop vlan

ingress-port ethernet 1

egress-port svi 2 queue 0

no shutdown

exit all

configure flows flow "svi2\_p1"

classifier "match\_all"

vlan-tag push vlan 400 p-bit fixed 7

ingress-port svi 2

egress-port ethernet 1 queue 0 block 0/2

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PW peer \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure peer 1 ip 10.10.10.8 name ETX\_205\_Local

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* DS1 - Port Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port ds1 1

frame-type e1

exit all

configure port ds1 2

frame-type e1

exit all

configure port ds1 3

frame-type e1

exit all

configure port ds1 4

frame-type e1

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PWE - Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure pwe pw 1 type ces-psn-data psn udp-over-ip

peer 1

label in 1 out 1

vlan priority 0

tdm-payload size 248 rate 31

jitter-buffer 15000

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 2 type ces-psn-data psn udp-over-ip

peer 1

label in 2 out 2

vlan priority 0

tdm-payload size 248 rate 31

jitter-buffer 15000

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 3 type ces-psn-data psn udp-over-ip

peer 1

label in 3 out 3

vlan priority 0

tdm-payload size 248 rate 31

jitter-buffer 15000

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 4 type ces-psn-data psn udp-over-ip

peer 1

label in 4 out 4

vlan priority 0

tdm-payload size 248 rate 31

jitter-buffer 15000

psn-oos 1-bit

pm-enable

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* e1 - Port Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port

l2cp-profile "SyncE"

mac 0x02 peer

exit all

configure port ethernet 1

tx-ssm

l2cp profile SyncE

exit all

configure system clock domain 1

 sync-network-type 1

 quality min-level-station sec

 mode auto

 force-t4-as-t0

 echo "Clock Source Configuration"

# Clock Source Configuration

 source 1 rx-port ethernet 1

 priority 2

 quality-level ssm-based

 wait-to-restore 0

 hold-off 300

exit all

configure port e1 1

no shutdown

tx-clock-source domain 1

line-type g732n

exit all

configure port e1 2

no shutdown

tx-clock-source domain 1

line-type g732n

exit all

configure port e1 3

no shutdown

tx-clock-source domain 1

line-type g732n

exit all

configure port e1 4

no shutdown

tx-clock-source domain 1

line-type g732n

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Cross-connect - Configuration \*\*\*\*\*\*\*\*\*\*\*

configure cross-connect pw-tdm pw 1 e1 1 time-slots 1..31

configure cross-connect pw-tdm pw 2 e1 2 time-slots 1..31

configure cross-connect pw-tdm pw 3 e1 3 time-slots 1..31

configure cross-connect pw-tdm pw 4 e1 4 time-slots 1..31

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Router interface \*\*\*\*\*\*\*\*\*\*\*

configure router 1

name "Router#1"

interface 2

 address 10.10.10.9/24

 bind svi 2

 no management-access

 no shutdown

exit

exit all

save

##### Ethernet service

configure flows classifier-profile "VLAN\_1000" match-any match vlan 1000

configure flows flow "Eth\_1\_Eth\_3"

 classifier "VLAN\_1000"

 no policer

 ingress-port ethernet 1

 egress-port ethernet 3 queue 0 block 0/1

 vlan-tag pop vlan

 no shutdown

exit all

configure flows flow "Eth\_3\_Eth\_1"

 classifier "all"

 ingress-port ethernet 3

 egress-port ethernet 1 queue 0 block 0/3

 vlan-tag push vlan 1000 p-bit fixed 0

 no shutdown

exit all

save

* 1. ASMi-53\_A Settings

##### Factory default

 ASMi-53

Configuration>System

 1. Management >

 2. Remote SW downloading >

 3. Reset to factory default

 4. Reset device

 5. Fault Propagation >

 6. TDM Mode > (2M)

========================================

 3. Reset to factory default

========================================

##### ASMi-53 – transparent modem

Configuration>Applications>Bridge

 VLAN Mode (Unaware)

 1. Forwarding Mode (Filter)

 2. Aging Time (sec)[10 - 10000] ... (300)

 3. sTAG mode (Transparent)

##### E1 unframed

Configuration>Physical Layer>E1

 Idle Code[0 - ff] ... (55)

 1. Administrative Status (Up)

 2. Line Type > (Unframed)

 3. Internal DS1 >

##### Management

Configuration>System>Management>Host IP parameters

 1. IP Address ... (172.18.171.184)

 2. IP Mask ... (255.255.255.0)

 3. Default Gateway ... (172.18.171.1)

Configuration>System>Management>Host Vlan

 1. Management traffic VLAN [1 - 4094] ... (84)

 2. Management traffic priority [0 - 7] ... (7)

* 1. ASMi-53\_B Settings

##### Factory default

 ASMi-53

Configuration>System

 1. Management >

 2. Remote SW downloading >

 3. Reset to factory default

 4. Reset device

 5. Fault Propagation >

 6. TDM Mode > (2M)

========================================

 3. Reset to factory default

========================================

##### ASMi-53 – transparent modem

Configuration>Applications>Bridge

 VLAN Mode (Unaware)

 1. Forwarding Mode (Filter)

 2. Aging Time (sec)[10 - 10000] ... (300)

 3. sTAG mode (Transparent)

##### E1 unframed

Configuration>Physical Layer>E1

 Idle Code[0 - ff] ... (55)

 1. Administrative Status (Up)

 2. Line Type > (Unframed)

 3. Internal DS1 >

##### Management

Configuration>System>Management>Host IP parameters

 1. IP Address ... (172.18.171.185)

 2. IP Mask ... (255.255.255.0)

 3. Default Gateway ... (172.18.171.1)

Configuration>System>Management>Host Vlan

 1. Management traffic VLAN [1 - 4094] ... (84)

 2. Management traffic priority [0 - 7] ... (7)

1. Appendix B – E1 SATOP MEF8 - SDH
	1. ETX-5 Settings

##### Factory default

admin factory-default

##### Management and Port Configuration

configure port ethernet 1/13 queue-group profile

configure port ethernet 1/14 queue-group profile

configure port ethernet 1/3 no queue-group profile

configure port ethernet 1/4 no queue-group profile

configure port ethernet 1/3 no shutdown

configure port ethernet 1/4 no shutdown

configure port ethernet 1/13 no shutdown

configure port ethernet 1/14 no shutdown

configure port lag 2

mode load-balance

bind ethernet 1/3

bind ethernet 1/4

lacp tx-activity active tx-speed slow

distribution-method dest-mac

anchor-port ethernet 1/3

queue-group profile "q\_group\_2\_level\_default\_IO1/3"

no shutdown

exit all

configure port lag 3

mode load-balance

bind ethernet 1/13

bind ethernet 1/14

lacp tx-activity active tx-speed slow

distribution-method dest-mac

anchor-port ethernet 1/13

queue-group profile "q\_group\_2\_level\_default\_IO1/13"

no shutdown

exit all

configure port svi 57 bridge

exit

configure port svi 58 bridge

exit all

configure bridge 1

port 4

 bind svi 57

 no shutdown

 exit

port 5

 bind svi 58

 no shutdown

 exit

echo "VLAN Configuration"

VLAN Configuration

 vlan 84

 tagged-egress 4,5

 exit all

configure flows

classifier-profile ClassUntagged match-any match untagged

classifier-profile all match-any match all

classifier-profile VLAN\_84 match-any match vlan 84

flow LACP\_IO\_LAG\_2\_sap

 classifier "ClassUntagged"

 l2cp profile "l2cpLAG\_OAM"

 ingress-port lag 2

 egress-port sap 1/1/49 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow LACP\_IO\_LAG\_2\_sap\_eth\_1\_20

 classifier all

 ingress-port sap 1/1/49

 egress-port ethernet 1/20 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow LACP\_IO\_LAG\_3\_sap

 classifier "ClassUntagged"

 l2cp profile "l2cpLAG\_OAM"

 ingress-port lag 3

 egress-port sap 1/2/60 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow LACP\_IO\_LAG\_3\_sap\_eth\_1\_10

 classifier all

 ingress-port sap 1/2/60

 egress-port ethernet 1/10 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow "mng\_LAG\_2"

 classifier "VLAN\_84"

 ingress-port lag 2

 egress-port sap 1/1/50 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow "mng\_SAP\_1\_1\_50\_to\_bridge"

 classifier "VLAN\_84"

 ingress-port sap 1/1/50

 egress-port svi 57

 no shutdown

 exit

flow "svi\_57\_LAG\_2"

 classifier "VLAN\_84"

 ingress-port svi 57

 egress-port lag 2 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow "mng\_LAG\_3"

 classifier "VLAN\_84"

 ingress-port lag 3

 egress-port sap 1/2/61 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow "mng\_SAP\_1\_2\_61\_to\_bridge"

 classifier "VLAN\_84"

 ingress-port sap 1/2/61

 egress-port svi 58

 no shutdown

 exit

flow "svi\_58\_LAG\_3"

 classifier "VLAN\_84"

 ingress-port svi 58

 egress-port lag 3 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit all

save

##### Ethernet Services

exit all

configure bridge 1

 vlan 400

 tagged-egress 4,5

 exit

 vlan 500

 tagged-egress 4,5

 exit

 vlan 1000

 tagged-egress 4,5

 exit all

configure flows

 configure flows classifier-profile v400 match-any match vlan 400

 configure flows classifier-profile v500 match-any match vlan 500

 configure flows classifier-profile v1000 match-any match vlan 1000

flow "v400\_LAG\_2"

 classifier "v400"

 ingress-port lag 2

 egress-port sap 1/1/50 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v400\_SAP\_1\_1\_50\_to\_bridge"

 classifier "v400"

 ingress-port sap 1/1/50

 egress-port svi 57

 no shutdown

 exit

flow "v400\_svi\_57\_LAG\_2"

 classifier "v400"

 ingress-port svi 57

 egress-port lag 2 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v500\_LAG\_2"

 classifier "v500"

 ingress-port lag 2

 egress-port sap 1/1/50 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v500\_SAP\_1\_1\_50\_to\_bridge"

 classifier "v500"

 ingress-port sap 1/1/50

 egress-port svi 57

 no shutdown

 exit

flow "v500\_svi\_57\_LAG\_2"

 classifier "v500"

 ingress-port svi 57

 egress-port lag 2 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v400\_LAG\_3"

 classifier "v400"

 ingress-port lag 3

 egress-port sap 1/2/61 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v400\_SAP\_1\_2\_61\_to\_bridge"

 classifier "v400"

 ingress-port sap 1/2/61

 egress-port svi 58

 no shutdown

 exit

flow "v400\_svi\_58\_LAG\_3"

 classifier "v400"

 ingress-port svi 58

 egress-port lag 3 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit all

flow "v500\_LAG\_3"

 classifier "v500"

 ingress-port lag 3

 egress-port sap 1/2/61 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v500\_SAP\_1\_2\_61\_to\_bridge"

 classifier "v500"

 ingress-port sap 1/2/61

 egress-port svi 58

 no shutdown

 exit

flow "v500\_svi\_58\_LAG\_3"

 classifier "v500"

 ingress-port svi 58

 egress-port lag 3 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit all

flow "v1000\_LAG\_2"

 classifier "v1000"

 ingress-port lag 2

 egress-port sap 1/1/50 queue-map-profile "QueueMapDefaultProfile" block 0/3

 no shutdown

 exit

flow "v1000\_SAP\_1\_1\_50\_to\_bridge"

 classifier "v1000"

 ingress-port sap 1/1/50

 egress-port svi 57

 no shutdown

 exit

flow "v1000\_svi\_57\_LAG\_2"

 classifier "v1000"

 ingress-port svi 57

 egress-port lag 2 queue-map-profile "QueueMapDefaultProfile" block 0/3

 no shutdown

 exit

flow "v1000\_LAG\_3"

 classifier "v1000"

 ingress-port lag 3

 egress-port sap 1/2/61 queue-map-profile "QueueMapDefaultProfile" block 0/3

 no shutdown

 exit

flow "v1000\_SAP\_1\_2\_61\_to\_bridge"

 classifier "v1000"

 ingress-port sap 1/2/61

 egress-port svi 58

 no shutdown

 exit

flow "v1000\_svi\_58\_LAG\_3"

 classifier "v1000"

 ingress-port svi 58

 egress-port lag 3 queue-map-profile "QueueMapDefaultProfile" block 0/3

 no shutdown

 exit all

save

* 1. Megaplex-4\_A Settings

##### Factory default

admin factory-default

##### Cards configuration

configure slot cl-a card-type cl cl2-622gbea

configure slot cl-b card-type cl cl2-622gbea

configure slot 1 card-type eth meth

configure slot 5 card-type dsl sh16

commit

save

##### Management configuration script

################################################################

######## QUALITY OF SERVICE ########

################################################################

##### Define a new Queue Group profile #####

configure qos queue-block-profile Eth

exit all

configure qos shaper-profile 1000 bandwidth cir 1000000

configure qos queue-group-profile 1000

queue-block 0/1

shaper profile 1000

profile Eth

exit all

configure qos

queue-map-profile P\_bit classification p-bit

map 0 to-queue 7

map 1 to-queue 6

map 2 to-queue 5

map 3 to-queue 4

map 4 to-queue 3

map 5 to-queue 2

map 6 to-queue 1

map 7 to-queue 0

exit all

################################################################

######## PORT CONFIGURATION ########

################################################################

configure port svi 1 no shutdown

configure port l2cp-profile l2cpLAG\_OAM mac 01-80-C2-00-00-02 peer

configure port ethernet cl-a/1 l2cp profile l2cpLAG\_OAM

configure port ethernet cl-b/1 l2cp profile l2cpLAG\_OAM

configure port lag 1

bind ethernet cl-a/1

bind ethernet cl-b/1

lacp tx-activity passive tx-speed slow

distribution-method dest-mac

queue-group profile 1000

no shutdown

exit all

configure port ethernet cl-a/1 no shutdown

configure port ethernet cl-b/1 no shutdown

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 vlan-aware

configure bridge 1

aging-time 60

port 1

no shutdown

exit

port 2

no shutdown

exit

vlan 84

tagged-egress 1,2

exit

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile V84 match-any match vlan 84

configure flows classifier-profile all match-any match all

configure flows flow mng\_in classifier V84

configure flows flow mng\_in ingress-port lag 1

configure flows flow mng\_in egress-port bridge-port 1 1

configure flows flow mng\_in reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow mng\_in no shutdown

configure flows flow mng\_router\_out classifier V84

configure flows flow mng\_router\_out ingress bridge-port 1 2

configure flows flow mng\_router\_out egress-port svi 1

configure flows flow mng\_router\_out vlan-tag pop vlan

configure flows flow mng\_router\_out no shutdown

configure flows flow mng\_router\_in classifier all

configure flows flow mng\_router\_in ingress svi 1

configure flows flow mng\_router\_in egress-port bridge-port 1 2

configure flows flow mng\_router\_in vlan-tag push vlan 84 p-bit fixed 1

configure flows flow mng\_router\_in no shutdown

################################################################

######## MNG CONFIGURATION ########

################################################################

configure router 1

interface 1

bind svi 1

address 172.18.171.180/24

no shutdown

exit

static-route 0.0.0.0/0 address 172.18.171.1

exit all

configure system name MP\_A

commit

save

##### clocking

#External 2mhz clock

configure system clock station cl-a/1 interface-type 2mhz

configure system clock station cl-a/1 no shutdown

configure system clock station cl-b/1 interface-type 2mhz

configure system clock station cl-b/1 no shutdown

configure system clock domain 1

source 1 station cl-a/1

 priority 1

 quality-level prc

 wait-to-restore 0

 exit

source 2 station cl-b/1

 priority 2

 quality-level prc

 wait-to-restore 0

exit all

#SyncE for ETX205\_TDM

configure port ethernet 1/1

l2cp profile l2cpLAG\_OAM

tx-ssm

exit all

commit

##### Ethernet service from ETX-205\_A

configure port ethernet 1/1 queue-group profile 1000

configure port ethernet 1/1 no shutdown

configure qos

policer-profile 10m

bandwidth cir 10000 cbs 65535

exit all

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 port 3 no shutdown

exit all

configure bridge 1

vlan 84

tagged-egress 3

exit

vlan 400

tagged-egress 1,3

exit

vlan 1000

tagged-egress 1,3

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile V400 match-any match vlan 400

configure flows classifier-profile V1000 match-any match vlan 1000

configure flows flow ETH\_205\_MNG classifier V84

configure flows flow ETH\_205\_MNG no policer

configure flows flow ETH\_205\_MNG ingress-port ethernet 1/1

configure flows flow ETH\_205\_MNG egress-port bridge-port 1 3

configure flows flow ETH\_205\_MNG reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_205\_MNG no shutdown

configure flows flow ETH\_V400\_PW classifier V400

configure flows flow ETH\_V400\_PW no policer

configure flows flow ETH\_V400\_PW ingress-port ethernet 1/1

configure flows flow ETH\_V400\_PW egress-port bridge-port 1 3

configure flows flow ETH\_V400\_PW reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V400\_PW no shutdown

configure flows flow ETH\_V400\_PW\_out classifier V400

configure flows flow ETH\_V400\_PW\_out no policer

configure flows flow ETH\_V400\_PW\_out ingress-port lag 1

configure flows flow ETH\_V400\_PW\_out egress-port bridge-port 1 1

configure flows flow ETH\_V400\_PW\_out reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V400\_PW\_out no shutdown

configure flows flow ETH\_V1000\_Data classifier V1000

configure flows flow ETH\_V1000\_Data policer profile 10m

configure flows flow ETH\_V1000\_Data ingress-port ethernet 1/1

configure flows flow ETH\_V1000\_Data egress-port bridge-port 1 3

configure flows flow ETH\_V1000\_Data reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V1000\_Data no shutdown

configure flows flow ETH\_V1000\_Data\_out classifier V1000

configure flows flow ETH\_V1000\_Data\_out no policer

configure flows flow ETH\_V1000\_Data\_out ingress-port lag 1

configure flows flow ETH\_V1000\_Data\_out egress-port bridge-port 1 1

configure flows flow ETH\_V1000\_Data\_out reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V1000\_Data\_out no shutdown

commit

save

##### Ethernet service from SHDSL over SDH

################################################################

######## QUALITY OF SERVICE ########

################################################################

configure qos

queue-block-profile shdsl

exit all

configure qos shaper-profile 11392 bandwidth cir 11392

configure qos queue-group-profile shdsl\_4wire

queue-block 0/1 profile shdsl

queue-block 0/1 shaper profile 11392

exit all

################################################################

############ PORT CONFIGURATION ##################

################################################################

configure port shdsl 5/1 no line-prob

configure port shdsl 5/1 data-rate maximum 11408

configure port shdsl 5/1 stu central

configure port shdsl 5/1 tc hdlc

configure port shdsl 5/1 wires 4

configure port shdsl 5/1 far-end-type non-managed

configure port shdsl 5/1 no shutdown

configure port pcs 5/1 bind shdsl 5/1

configure port pcs 5/1 queue-group profile shdsl\_4wire

configure port pcs 5/1 no shutdown

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 port 51 no shutdown

configure bridge 1 vlan-aware

configure bridge 1

vlan 500

tagged-egress 1,51

exit

vlan 84

tagged-egress 51

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile vlan500 match-any match vlan 500

configure flows flow vlan\_mng\_pcs\_5\_1 classifier V84

configure flows flow vlan\_mng\_pcs\_5\_1 ingress-port pcs 5/1

configure flows flow vlan\_mng\_pcs\_5\_1 egress-port bridge-port 1 51

configure flows flow vlan\_mng\_pcs\_5\_1 reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow vlan\_mng\_pcs\_5\_1 no shutdown

configure flows flow vlan\_500\_pcs\_5\_1 classifier vlan500

configure flows flow vlan\_500\_pcs\_5\_1 ingress-port pcs 5/1

configure flows flow vlan\_500\_pcs\_5\_1 egress-port bridge-port 1 51

configure flows flow vlan\_500\_pcs\_5\_1 reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow vlan\_500\_pcs\_5\_1 no shutdown

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/2/3

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/1

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/2

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/3

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/2/1/1

configure port vcg cl-a/2 no shutdown

configure port gfp cl-a/2 bind vcg cl-a/2

configure port gfp cl-a/2 no shutdown

configure qos queue-block-profile DSL

exit

shaper-profile DSL bandwidth cir 10240

queue-group-profile DSL

queue-block 0/1

profile DSL

shaper profile DSL

exit all

configure port logical-mac cl-a/2 bind gfp cl-a/2

configure port logical-mac cl-a/2 queue-group profile DSL

configure port logical-mac cl-a/2 no shutdown

configure bridge 1

 port 5

 no shutdown

 exit

 vlan 500

 tagged-egress 5

 exit all

configure flows flow "vcq\_V500\_DSL\_out"

 classifier "vlan500"

 no policer

 ingress-port logical-mac cl-a/2

 egress-port bridge-port 1 5

 reverse-direction queue-map-profile "P\_bit" block 0/1

 no shutdown

 exit

commit

save

##### E1 Unframed

🖝 **E1 traffic from SHDSL modem is possible only with MP-4100M-16SHDSL/E1 card on the MP-4.
Please check RAD rollout in the distributer site to check availability**

configure port e1-i 5/1

line-type unframed

no shutdown

exit all

configure cross-connect

sdh-sonet vc12-vt2 cl-a/1/1/2/1/2 e1-i 5/1

* 1. Megaplex-4\_B Settings

##### Factory default

admin factory-default

##### Cards configuration

configure slot cl-a card-type cl cl2-622gbea

configure slot cl-b card-type cl cl2-622gbea

configure slot 1 card-type eth meth

configure slot 5 card-type dsl sh16

commit

save

##### Management configuration script

################################################################

######## QUALITY OF SERVICE ########

################################################################

##### Define a new Queue Group profile #####

configure qos queue-block-profile Eth

exit all

configure qos shaper-profile 1000 bandwidth cir 1000000

configure qos queue-group-profile 1000

queue-block 0/1

shaper profile 1000

profile Eth

exit all

configure qos

queue-map-profile P\_bit classification p-bit

map 0 to-queue 7

map 1 to-queue 6

map 2 to-queue 5

map 3 to-queue 4

map 4 to-queue 3

map 5 to-queue 2

map 6 to-queue 1

map 7 to-queue 0

exit all

################################################################

######## PORT CONFIGURATION ########

################################################################

configure port svi 1 no shutdown

configure port l2cp-profile l2cpLAG\_OAM mac 01-80-C2-00-00-02 peer

configure port ethernet cl-a/1 l2cp profile l2cpLAG\_OAM

configure port ethernet cl-b/1 l2cp profile l2cpLAG\_OAM

configure port lag 1

bind ethernet cl-a/1

bind ethernet cl-b/1

lacp tx-activity passive tx-speed slow

distribution-method dest-mac

queue-group profile 1000

no shutdown

exit all

configure port ethernet cl-a/1 no shutdown

configure port ethernet cl-b/1 no shutdown

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 vlan-aware

configure bridge 1

aging-time 60

port 1

no shutdown

exit

port 2

no shutdown

exit

vlan 84

tagged-egress 1,2

exit

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile V84 match-any match vlan 84

configure flows classifier-profile all match-any match all

configure flows flow mng\_in classifier V84

configure flows flow mng\_in ingress-port lag 1

configure flows flow mng\_in egress-port bridge-port 1 1

configure flows flow mng\_in reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow mng\_in no shutdown

configure flows flow mng\_router\_out classifier V84

configure flows flow mng\_router\_out ingress bridge-port 1 2

configure flows flow mng\_router\_out egress-port svi 1

configure flows flow mng\_router\_out vlan-tag pop vlan

configure flows flow mng\_router\_out no shutdown

configure flows flow mng\_router\_in classifier all

configure flows flow mng\_router\_in ingress svi 1

configure flows flow mng\_router\_in egress-port bridge-port 1 2

configure flows flow mng\_router\_in vlan-tag push vlan 84 p-bit fixed 1

configure flows flow mng\_router\_in no shutdown

################################################################

######## MNG CONFIGURATION ########

################################################################

configure router 1

interface 1

bind svi 1

address 172.18.171.181/24

no shutdown

exit

static-route 0.0.0.0/0 address 172.18.171.1

exit all

configure system name MP\_B

commit

##### clocking

#External 2mhz clock

configure system clock station cl-a/1 interface-type 2mhz

configure system clock station cl-a/1 no shutdown

configure system clock station cl-b/1 interface-type 2mhz

configure system clock station cl-b/1 no shutdown

configure system clock domain 1

source 1 station cl-a/1

 priority 1

 quality-level prc

 wait-to-restore 0

 exit

source 2 station cl-b/1

 priority 2

 quality-level prc

 wait-to-restore 0

exit all

#SyncE for ETX205\_TDM

configure port ethernet 1/1

l2cp profile l2cpLAG\_OAM

tx-ssm

exit all

commit

##### Ethernet service from ETX-205\_B

configure port ethernet 1/1 queue-group profile 1000

configure port ethernet 1/1 no shutdown

configure qos

policer-profile 10m

bandwidth cir 10000 cbs 65535

exit all

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 port 3 no shutdown

exit all

configure bridge 1

vlan 84

tagged-egress 3

exit

vlan 400

tagged-egress 1,3

exit

vlan 1000

tagged-egress 1,3

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile V400 match-any match vlan 400

configure flows classifier-profile V1000 match-any match vlan 1000

configure flows flow ETH\_205\_MNG classifier V84

configure flows flow ETH\_205\_MNG no policer

configure flows flow ETH\_205\_MNG ingress-port ethernet 1/1

configure flows flow ETH\_205\_MNG egress-port bridge-port 1 3

configure flows flow ETH\_205\_MNG reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_205\_MNG no shutdown

configure flows flow ETH\_V400\_PW classifier V400

configure flows flow ETH\_V400\_PW no policer

configure flows flow ETH\_V400\_PW ingress-port ethernet 1/1

configure flows flow ETH\_V400\_PW egress-port bridge-port 1 3

configure flows flow ETH\_V400\_PW reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V400\_PW no shutdown

configure flows flow ETH\_V400\_PW\_out classifier V400

configure flows flow ETH\_V400\_PW\_out no policer

configure flows flow ETH\_V400\_PW\_out ingress-port lag 1

configure flows flow ETH\_V400\_PW\_out egress-port bridge-port 1 1

configure flows flow ETH\_V400\_PW\_out reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V400\_PW\_out no shutdown

configure flows flow ETH\_V1000\_Data classifier V1000

configure flows flow ETH\_V1000\_Data policer profile 10m

configure flows flow ETH\_V1000\_Data ingress-port ethernet 1/1

configure flows flow ETH\_V1000\_Data egress-port bridge-port 1 3

configure flows flow ETH\_V1000\_Data reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V1000\_Data no shutdown

configure flows flow ETH\_V1000\_Data\_out classifier V1000

configure flows flow ETH\_V1000\_Data\_out no policer

configure flows flow ETH\_V1000\_Data\_out ingress-port lag 1

configure flows flow ETH\_V1000\_Data\_out egress-port bridge-port 1 1

configure flows flow ETH\_V1000\_Data\_out reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V1000\_Data\_out no shutdown

commit

save

##### Ethernet service from SHDSL over SDH

################################################################

######## ########

#### SCRIPT FOR VS-SHDSL on Ethernet port #####

######## ########

################################################################

################################################################

######## QUALITY OF SERVICE ########

################################################################

configure qos

queue-block-profile shdsl

exit all

configure qos shaper-profile 11392 bandwidth cir 11392

configure qos queue-group-profile shdsl\_4wire

queue-block 0/1 profile shdsl

queue-block 0/1 shaper profile 11392

exit all

################################################################

############ PORT CONFIGURATION ##################

################################################################

configure port shdsl 5/1 no line-prob

configure port shdsl 5/1 data-rate maximum 11408

configure port shdsl 5/1 stu central

configure port shdsl 5/1 tc hdlc

configure port shdsl 5/1 wires 4

configure port shdsl 5/1 far-end-type non-managed

configure port shdsl 5/1 no shutdown

configure port pcs 5/1 bind shdsl 5/1

configure port pcs 5/1 queue-group profile shdsl\_4wire

configure port pcs 5/1 no shutdown

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 port 51 no shutdown

configure bridge 1 vlan-aware

configure bridge 1

vlan 500

tagged-egress 1,51

exit

vlan 84

tagged-egress 51

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile vlan500 match-any match vlan 500

configure flows flow vlan\_mng\_pcs\_5\_1 classifier V84

configure flows flow vlan\_mng\_pcs\_5\_1 ingress-port pcs 5/1

configure flows flow vlan\_mng\_pcs\_5\_1 egress-port bridge-port 1 51

configure flows flow vlan\_mng\_pcs\_5\_1 reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow vlan\_mng\_pcs\_5\_1 no shutdown

configure flows flow vlan\_500\_pcs\_5\_1 classifier vlan500

configure flows flow vlan\_500\_pcs\_5\_1 ingress-port pcs 5/1

configure flows flow vlan\_500\_pcs\_5\_1 egress-port bridge-port 1 51

configure flows flow vlan\_500\_pcs\_5\_1 reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow vlan\_500\_pcs\_5\_1 no shutdown

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/2/3

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/1

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/2

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/3

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/2/1/1

configure port vcg cl-a/2 no shutdown

configure port gfp cl-a/2 bind vcg cl-a/2

configure port gfp cl-a/2 no shutdown

configure qos queue-block-profile DSL

exit

shaper-profile DSL bandwidth cir 10240

queue-group-profile DSL

queue-block 0/1

profile DSL

shaper profile DSL

exit all

configure port logical-mac cl-a/2 bind gfp cl-a/2

configure port logical-mac cl-a/2 queue-group profile DSL

configure port logical-mac cl-a/2 no shutdown

configure bridge 1

port 5

no shutdown

exit

vlan 500

tagged-egress 5

exit all

configure flows flow "vcg\_V500\_DSL\_out"

 classifier "vlan500"

 no policer

 ingress-port logical-mac cl-a/2

 egress-port bridge-port 1 5

 reverse-direction queue-map-profile "P\_bit" block 0/1

 no shutdown

 exit

commit

save

##### E1 Unframed

🖝 **E1 traffic from SHDSL modem is possible only with MP-4100M-16SHDSL/E1 card on the MP-4.
Please check RAD rollout in the distributer site to check availability**

configure port e1-i 5/1

line-type unframed

no shutdown

exit all

configure cross-connect

sdh-sonet vc12-vt2 cl-a/1/1/2/1/2 e1-i 5/1

* 1. ETX-205\_A Settings

##### Factory default

admin factory-default

##### Queues Configuration

exit all

configure qos queue-group-profile QGN1

queue-block 0/3

exit all

configure port eth 1 queue-group profile QGN1

exit all

configure qos queue-group-profile QGN2

exit all

configure port eth 2 queue-group profile QGN2

exit all

configure qos queue-group-profile QGN3

exit all

configure port eth 3 queue-group profile QGN3

exit all

configure qos queue-group-profile QGN4

exit all

configure port eth 4 queue-group profile QGN4

exit all

configure qos queue-group-profile QGN5

exit all

configure port eth 5 queue-group profile QGN5

exit all

configure qos queue-group-profile QGN6

exit all

configure port eth 6 queue-group profile QGN6

exit all

save

##### Management configuration script

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*SNMP Configuration\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure system name "ETX-205\_A"

exit all

configure management

snmp

target-params "PC\_69"

 message-processing-model snmpv3

 version usm

 security name "initial" level no-auth-no-priv

 no shutdown

exit

target "a"

 target-params "PC\_69"

 address udp-domain 172.17.150.69

 no shutdown

 tag-list "unmasked"

 trap-sync-group 1

exit

config-change-notification

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END SNMP Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Inband MNG \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port svi 1

no shutdown

exit all

configure flows classifier-profile "all" match-any match all

configure flows classifier-profile "VLAN\_84" match-any match vlan 84

configure flows flow "Eth\_1\_svi\_1"

 classifier "VLAN\_84"

 no policer

 vlan-tag pop vlan

 ingress-port ethernet 1

 egress-port svi 1 queue 0

 no shutdown

exit all

configure flows flow "svi\_1\_Eth\_1"

 classifier "all"

 no policer

 ingress-port svi 1

 egress-port ethernet 1 queue 0 block 0/1

 vlan-tag push vlan 84 p-bit fixed 0

 no shutdown

exit all

configure router 1

name "Router#1"

interface 1

 address 172.18.171.182/24

 bind svi 1

 no shutdown

exit

static-route 0.0.0.0/0 address 172.18.171.1

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END Inband MNG \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Save

##### E1 SATOP PW configuration

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* SVI for PW \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port svi 2

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PW Flows \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure flows

classifier-profile match\_all match-any

match all

exit all

configure flows

classifier-profile VLAN400 match-any

match vlan 400

exit all

configure flows flow "p1\_svi2"

classifier "VLAN400"

vlan-tag pop vlan

ingress-port ethernet 1

egress-port svi 2 queue 0

no shutdown

exit all

configure flows flow "svi2\_p1"

classifier "match\_all"

vlan-tag push vlan 400 p-bit fixed 7

ingress-port svi 2

egress-port ethernet 1 queue 0 block 0/2

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PW peer \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure peer 1 mac 00-20-D2-54-55-B6

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* DS1 - Port Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port ds1 1

frame-type e1

exit all

configure port ds1 2

frame-type e1

exit all

configure port ds1 3

frame-type e1

exit all

configure port ds1 4

frame-type e1

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PWE - Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure pwe pw 1 type e1satop psn ethernet

peer 1

label in 1 out 1

vlan priority 7

tdm-payload size 256

jitter-buffer 10000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 2 type e1satop psn ethernet

peer 1

label in 2 out 2

vlan priority 7

tdm-payload size 256

jitter-buffer 10000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 3 type e1satop psn ethernet

peer 1

label in 3 out 3

vlan priority 7

tdm-payload size 256

jitter-buffer 10000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 4 type e1satop psn ethernet

peer 1

label in 4 out 4

vlan priority 7

tdm-payload size 256

jitter-buffer 10000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* e1 - Port Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port

l2cp-profile "SyncE"

mac 0x02 peer

exit all

configure port ethernet 1

tx-ssm

l2cp profile SyncE

exit all

configure system clock domain 1

 sync-network-type 1

 quality min-level-station sec

 mode auto

 force-t4-as-t0

 echo "Clock Source Configuration"

# Clock Source Configuration

 source 1 rx-port ethernet 1

 priority 2

 quality-level ssm-based

 wait-to-restore 0

 hold-off 300

exit all

configure port e1 1

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

configure port e1 2

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

configure port e1 3

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

configure port e1 4

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Cross-connect - Configuration \*\*\*\*\*\*\*\*\*\*\*

configure cross-connect pw-tdm pw 1 e1 1

configure cross-connect pw-tdm pw 2 e1 2

configure cross-connect pw-tdm pw 3 e1 3

configure cross-connect pw-tdm pw 4 e1 4

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Router interface \*\*\*\*\*\*\*\*\*\*\*

save

##### Ethernet service

configure flows classifier-profile "VLAN\_1000" match-any match vlan 1000

configure flows flow "Eth\_1\_Eth\_3"

 classifier "VLAN\_1000"

 no policer

 ingress-port ethernet 1

 egress-port ethernet 3 queue 0 block 0/1

 vlan-tag pop vlan

 no shutdown

exit all

configure flows flow "Eth\_3\_Eth\_1"

 classifier "all"

 ingress-port ethernet 3

 egress-port ethernet 1 queue 0 block 0/3

 vlan-tag push vlan 1000 p-bit fixed 0

 no shutdown

exit all

save

* 1. ETX-205\_B Settings

##### Factory default

admin factory-default

##### Queues Configuration

exit all

configure qos queue-group-profile QGN1

queue-block 0/3

exit all

configure port eth 1 queue-group profile QGN1

exit all

configure qos queue-group-profile QGN2

exit all

configure port eth 2 queue-group profile QGN2

exit all

configure qos queue-group-profile QGN3

exit all

configure port eth 3 queue-group profile QGN3

exit all

configure qos queue-group-profile QGN4

exit all

configure port eth 4 queue-group profile QGN4

exit all

configure qos queue-group-profile QGN5

exit all

configure port eth 5 queue-group profile QGN5

exit all

configure qos queue-group-profile QGN6

exit all

configure port eth 6 queue-group profile QGN6

exit all

save

##### Management configuration script

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*SNMP Configuration\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure system name "ETX-205\_B"

exit all

configure management

snmp

target-params "PC\_69"

 message-processing-model snmpv3

 version usm

 security name "initial" level no-auth-no-priv

 no shutdown

exit

target "a"

 target-params "PC\_69"

 address udp-domain 172.17.150.69

 no shutdown

 tag-list "unmasked"

 trap-sync-group 1

exit

config-change-notification

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END SNMP Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Inband MNG \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port svi 1

no shutdown

exit all

configure flows classifier-profile "all" match-any match all

configure flows classifier-profile "VLAN\_84" match-any match vlan 84

configure flows flow "Eth\_1\_svi\_1"

 classifier "VLAN\_84"

 no policer

 vlan-tag pop vlan

 ingress-port ethernet 1

 egress-port svi 1 queue 0

 no shutdown

exit all

configure flows flow "svi\_1\_Eth\_1"

 classifier "all"

 no policer

 ingress-port svi 1

 egress-port ethernet 1 queue 0 block 0/1

 vlan-tag push vlan 84 p-bit fixed 0

 no shutdown

exit all

configure router 1

name "Router#1"

interface 1

 address 172.18.171.183/24

 bind svi 1

 no shutdown

exit

static-route 0.0.0.0/0 address 172.18.171.1

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END Inband MNG \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

save

##### E1 SATOP PW configuration

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* SVI for PW \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port svi 2

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PW Flows \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure flows

classifier-profile match\_all match-any

match all

exit all

configure flows

classifier-profile VLAN400 match-any

match vlan 400

exit all

configure flows flow "p1\_svi2"

classifier "VLAN400"

vlan-tag pop vlan

ingress-port ethernet 1

egress-port svi 2 queue 0

no shutdown

exit all

configure flows flow "svi2\_p1"

classifier "match\_all"

vlan-tag push vlan 400 p-bit fixed 7

ingress-port svi 2

egress-port ethernet 1 queue 0 block 0/2

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PW peer \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure peer 1 mac 00-20-D2-51-CE-D2

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* DS1 - Port Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port ds1 1

frame-type e1

exit all

configure port ds1 2

frame-type e1

exit all

configure port ds1 3

frame-type e1

exit all

configure port ds1 4

frame-type e1

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PWE - Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure pwe pw 1 type e1satop psn ethernet

peer 1

label in 1 out 1

vlan priority 7

tdm-payload size 256

jitter-buffer 15000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 2 type e1satop psn ethernet

peer 1

label in 2 out 2

vlan priority 7

tdm-payload size 256

jitter-buffer 15000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 3 type e1satop psn ethernet

peer 1

label in 3 out 3

vlan priority 7

tdm-payload size 256

jitter-buffer 15000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 4 type e1satop psn ethernet

peer 1

label in 4 out 4

vlan priority 7

tdm-payload size 256

jitter-buffer 15000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* e1 - Port Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port

l2cp-profile "SyncE"

mac 0x02 peer

exit all

configure port ethernet 1

tx-ssm

l2cp profile SyncE

exit all

configure system clock domain 1

 sync-network-type 1

 quality min-level-station sec

 mode auto

 force-t4-as-t0

 echo "Clock Source Configuration"

# Clock Source Configuration

 source 1 rx-port ethernet 1

 priority 2

 quality-level ssm-based

 wait-to-restore 0

 hold-off 300

exit all

configure port e1 1

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

configure port e1 2

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

configure port e1 3

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

configure port e1 4

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Cross-connect - Configuration \*\*\*\*\*\*\*\*\*\*\*

configure cross-connect pw-tdm pw 1 e1 1

configure cross-connect pw-tdm pw 2 e1 2

configure cross-connect pw-tdm pw 3 e1 3

configure cross-connect pw-tdm pw 4 e1 4

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Router interface \*\*\*\*\*\*\*\*\*\*\*

save

* 1. ASMi-53\_A Settings

##### Factory default

 ASMi-53

Configuration>System

 1. Management >

 2. Remote SW downloading >

 3. Reset to factory default

 4. Reset device

 5. Fault Propagation >

 6. TDM Mode > (2M)

========================================

 3. Reset to factory default

========================================

##### ASMi-53 – transparent modem

Configuration>Applications>Bridge

 VLAN Mode (Unaware)

 1. Forwarding Mode (Filter)

 2. Aging Time (sec)[10 - 10000] ... (300)

 3. sTAG mode (Transparent)

##### E1 unframed

Configuration>Physical Layer>E1

 Idle Code[0 - ff] ... (55)

 1. Administrative Status (Up)

 2. Line Type > (Unframed)

 3. Internal DS1 >

##### Management

Configuration>System>Management>Host IP parameters

 1. IP Address ... (172.18.171.184)

 2. IP Mask ... (255.255.255.0)

 3. Default Gateway ... (172.18.171.1)

Configuration>System>Management>Host Vlan

 1. Management traffic VLAN [1 - 4094] ... (84)

 2. Management traffic priority [0 - 7] ... (7)

* 1. ASMi-53\_B Settings

##### Factory default

 ASMi-53

Configuration>System

 1. Management >

 2. Remote SW downloading >

 3. Reset to factory default

 4. Reset device

 5. Fault Propagation >

 6. TDM Mode > (2M)

========================================

 3. Reset to factory default

========================================

##### ASMi-53 – transparent modem

Configuration>Applications>Bridge

 VLAN Mode (Unaware)

 1. Forwarding Mode (Filter)

 2. Aging Time (sec)[10 - 10000] ... (300)

 3. sTAG mode (Transparent)

##### E1 unframed

Configuration>Physical Layer>E1

 Idle Code[0 - ff] ... (55)

 1. Administrative Status (Up)

 2. Line Type > (Unframed)

 3. Internal DS1 >

##### Management

Configuration>System>Management>Host IP parameters

 1. IP Address ... (172.18.171.185)

 2. IP Mask ... (255.255.255.0)

 3. Default Gateway ... (172.18.171.1)

Configuration>System>Management>Host Vlan

 1. Management traffic VLAN [1 - 4094] ... (84)

 2. Management traffic priority [0 - 7] ... (7)

1. Appendix C – T1 SATOP MEF8 - SONET
	1. ETX-5 Settings

##### Factory default

admin factory-default

##### Management and Port Configuration

configure port ethernet 1/13 queue-group profile

configure port ethernet 1/14 queue-group profile

configure port ethernet 1/3 no queue-group profile

configure port ethernet 1/4 no queue-group profile

configure port ethernet 1/3 no shutdown

configure port ethernet 1/4 no shutdown

configure port ethernet 1/13 no shutdown

configure port ethernet 1/14 no shutdown

configure port lag 2

mode load-balance

bind ethernet 1/3

bind ethernet 1/4

lacp tx-activity active tx-speed slow

distribution-method dest-mac

anchor-port ethernet 1/3

queue-group profile "q\_group\_2\_level\_default\_IO1/3"

no shutdown

exit all

configure port lag 3

mode load-balance

bind ethernet 1/13

bind ethernet 1/14

lacp tx-activity active tx-speed slow

distribution-method dest-mac

anchor-port ethernet 1/13

queue-group profile "q\_group\_2\_level\_default\_IO1/13"

no shutdown

exit all

configure port svi 57 bridge

exit

configure port svi 58 bridge

exit all

configure bridge 1

port 4

 bind svi 57

 no shutdown

 exit

port 5

 bind svi 58

 no shutdown

 exit

echo "VLAN Configuration"

VLAN Configuration

 vlan 84

 tagged-egress 4,5

 exit all

configure flows

classifier-profile ClassUntagged match-any match untagged

classifier-profile all match-any match all

classifier-profile VLAN\_84 match-any match vlan 84

flow LACP\_IO\_LAG\_2\_sap

 classifier "ClassUntagged"

 l2cp profile "l2cpLAG\_OAM"

 ingress-port lag 2

 egress-port sap 1/1/49 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow LACP\_IO\_LAG\_2\_sap\_eth\_1\_20

 classifier all

 ingress-port sap 1/1/49

 egress-port ethernet 1/20 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow LACP\_IO\_LAG\_3\_sap

 classifier "ClassUntagged"

 l2cp profile "l2cpLAG\_OAM"

 ingress-port lag 3

 egress-port sap 1/2/60 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow LACP\_IO\_LAG\_3\_sap\_eth\_1\_10

 classifier all

 ingress-port sap 1/2/60

 egress-port ethernet 1/10 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow "mng\_LAG\_2"

 classifier "VLAN\_84"

 ingress-port lag 2

 egress-port sap 1/1/50 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow "mng\_SAP\_1\_1\_50\_to\_bridge"

 classifier "VLAN\_84"

 ingress-port sap 1/1/50

 egress-port svi 57

 no shutdown

 exit

flow "svi\_57\_LAG\_2"

 classifier "VLAN\_84"

 ingress-port svi 57

 egress-port lag 2 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow "mng\_LAG\_3"

 classifier "VLAN\_84"

 ingress-port lag 3

 egress-port sap 1/2/61 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit

flow "mng\_SAP\_1\_2\_61\_to\_bridge"

 classifier "VLAN\_84"

 ingress-port sap 1/2/61

 egress-port svi 58

 no shutdown

 exit

flow "svi\_58\_LAG\_3"

 classifier "VLAN\_84"

 ingress-port svi 58

 egress-port lag 3 queue-map-profile "QueueMapDefaultProfile" block 0/1

 no shutdown

 exit all

save

##### Ethernet Services

exit all

configure bridge 1

 vlan 400

 tagged-egress 4,5

 exit

 vlan 500

 tagged-egress 4,5

 exit

 vlan 1000

 tagged-egress 4,5

 exit all

configure flows

 configure flows classifier-profile v400 match-any match vlan 400

 configure flows classifier-profile v500 match-any match vlan 500

 configure flows classifier-profile v1000 match-any match vlan 1000

flow "v400\_LAG\_2"

 classifier "v400"

 ingress-port lag 2

 egress-port sap 1/1/50 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v400\_SAP\_1\_1\_50\_to\_bridge"

 classifier "v400"

 ingress-port sap 1/1/50

 egress-port svi 57

 no shutdown

 exit

flow "v400\_svi\_57\_LAG\_2"

 classifier "v400"

 ingress-port svi 57

 egress-port lag 2 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v500\_LAG\_2"

 classifier "v500"

 ingress-port lag 2

 egress-port sap 1/1/50 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v500\_SAP\_1\_1\_50\_to\_bridge"

 classifier "v500"

 ingress-port sap 1/1/50

 egress-port svi 57

 no shutdown

 exit

flow "v500\_svi\_57\_LAG\_2"

 classifier "v500"

 ingress-port svi 57

 egress-port lag 2 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v400\_LAG\_3"

 classifier "v400"

 ingress-port lag 3

 egress-port sap 1/2/61 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v400\_SAP\_1\_2\_61\_to\_bridge"

 classifier "v400"

 ingress-port sap 1/2/61

 egress-port svi 58

 no shutdown

 exit

flow "v400\_svi\_58\_LAG\_3"

 classifier "v400"

 ingress-port svi 58

 egress-port lag 3 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit all

flow "v500\_LAG\_3"

 classifier "v500"

 ingress-port lag 3

 egress-port sap 1/2/61 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit

flow "v500\_SAP\_1\_2\_61\_to\_bridge"

 classifier "v500"

 ingress-port sap 1/2/61

 egress-port svi 58

 no shutdown

 exit

flow "v500\_svi\_58\_LAG\_3"

 classifier "v500"

 ingress-port svi 58

 egress-port lag 3 queue-map-profile "QueueMapDefaultProfile" block 0/2

 no shutdown

 exit all

flow "v1000\_LAG\_2"

 classifier "v1000"

 ingress-port lag 2

 egress-port sap 1/1/50 queue-map-profile "QueueMapDefaultProfile" block 0/3

 no shutdown

 exit

flow "v1000\_SAP\_1\_1\_50\_to\_bridge"

 classifier "v1000"

 ingress-port sap 1/1/50

 egress-port svi 57

 no shutdown

 exit

flow "v1000\_svi\_57\_LAG\_2"

 classifier "v1000"

 ingress-port svi 57

 egress-port lag 2 queue-map-profile "QueueMapDefaultProfile" block 0/3

 no shutdown

 exit

flow "v1000\_LAG\_3"

 classifier "v1000"

 ingress-port lag 3

 egress-port sap 1/2/61 queue-map-profile "QueueMapDefaultProfile" block 0/3

 no shutdown

 exit

flow "v1000\_SAP\_1\_2\_61\_to\_bridge"

 classifier "v1000"

 ingress-port sap 1/2/61

 egress-port svi 58

 no shutdown

 exit

flow "v1000\_svi\_58\_LAG\_3"

 classifier "v1000"

 ingress-port svi 58

 egress-port lag 3 queue-map-profile "QueueMapDefaultProfile" block 0/3

 no shutdown

 exit all

save

* 1. Megaplex-4\_A Settings

##### Frame type Sonet

##########################################

#run this scrip manual ,command by command

##########################################

1. config slot cl-b card-type cl cl2-622gbea

 commit

2. conf port sdh-sonet cl-a/1 frame-type sonet

 commit

 save

3. admin reboot

 yes

##### Cards configuration

configure slot cl-a card-type cl cl2-622gbea

configure slot cl-b card-type cl cl2-622gbea

configure slot 1 card-type eth meth

configure slot 5 card-type dsl sh16

commit

save

##### Management configuration script

################################################################

######## QUALITY OF SERVICE ########

################################################################

##### Define a new Queue Group profile #####

configure qos queue-block-profile Eth

exit all

configure qos shaper-profile 1000 bandwidth cir 1000000

configure qos queue-group-profile 1000

queue-block 0/1

shaper profile 1000

profile Eth

exit all

configure qos

queue-map-profile P\_bit classification p-bit

map 0 to-queue 7

map 1 to-queue 6

map 2 to-queue 5

map 3 to-queue 4

map 4 to-queue 3

map 5 to-queue 2

map 6 to-queue 1

map 7 to-queue 0

exit all

################################################################

######## PORT CONFIGURATION ########

################################################################

configure port svi 1 no shutdown

configure port l2cp-profile l2cpLAG\_OAM mac 01-80-C2-00-00-02 peer

configure port ethernet cl-a/1 l2cp profile l2cpLAG\_OAM

configure port ethernet cl-b/1 l2cp profile l2cpLAG\_OAM

configure port lag 1

bind ethernet cl-a/1

bind ethernet cl-b/1

lacp tx-activity passive tx-speed slow

distribution-method dest-mac

queue-group profile 1000

no shutdown

exit all

configure port ethernet cl-a/1 no shutdown

configure port ethernet cl-b/1 no shutdown

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 vlan-aware

configure bridge 1

aging-time 60

port 1

no shutdown

exit

port 2

no shutdown

exit

vlan 84

tagged-egress 1,2

exit

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile V84 match-any match vlan 84

configure flows classifier-profile all match-any match all

configure flows flow mng\_in classifier V84

configure flows flow mng\_in ingress-port lag 1

configure flows flow mng\_in egress-port bridge-port 1 1

configure flows flow mng\_in reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow mng\_in no shutdown

configure flows flow mng\_router\_out classifier V84

configure flows flow mng\_router\_out ingress bridge-port 1 2

configure flows flow mng\_router\_out egress-port svi 1

configure flows flow mng\_router\_out vlan-tag pop vlan

configure flows flow mng\_router\_out no shutdown

configure flows flow mng\_router\_in classifier all

configure flows flow mng\_router\_in ingress svi 1

configure flows flow mng\_router\_in egress-port bridge-port 1 2

configure flows flow mng\_router\_in vlan-tag push vlan 84 p-bit fixed 1

configure flows flow mng\_router\_in no shutdown

################################################################

######## MNG CONFIGURATION ########

################################################################

configure router 1

interface 1

bind svi 1

address 172.18.171.180/24

no shutdown

exit

static-route 0.0.0.0/0 address 172.18.171.1

exit all

configure system name MP\_A

commit

save

##### clocking

#External 2mhz clock

config system clock station cl-a/1 interface-type 2mhz

config system clock station cl-a/1 no shutdown

config system clock station cl-b/1 interface-type 2mhz

config system clock station cl-b/1 no shutdown

config system clock domain 1

source 1 station cl-a/1

 priority 1

 quality-level prs

 wait-to-restore 0

 exit

#Clock Source Configuration

source 2 station cl-b/1

 priority 2

 quality-level prs

 wait-to-restore 0

exit all

#SyncE ETX205\_TDM

conf port ethernet 1/1

l2cp profile l2cpLAG\_OAM

tx-ssm

exit all

commit

##### Ethernet service from ETX-205\_A

configure port ethernet 1/1 queue-group profile 1000

configure port ethernet 1/1 no shutdown

configure qos

policer-profile 10m

bandwidth cir 10000 cbs 65535

exit all

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 port 3 no shutdown

exit all

configure bridge 1

vlan 84

tagged-egress 3

exit

vlan 400

tagged-egress 1,3

exit

vlan 1000

tagged-egress 1,3

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile V400 match-any match vlan 400

configure flows classifier-profile V1000 match-any match vlan 1000

configure flows flow ETH\_205\_MNG classifier V84

configure flows flow ETH\_205\_MNG no policer

configure flows flow ETH\_205\_MNG ingress-port ethernet 1/1

configure flows flow ETH\_205\_MNG egress-port bridge-port 1 3

configure flows flow ETH\_205\_MNG reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_205\_MNG no shutdown

configure flows flow ETH\_V400\_PW classifier V400

configure flows flow ETH\_V400\_PW no policer

configure flows flow ETH\_V400\_PW ingress-port ethernet 1/1

configure flows flow ETH\_V400\_PW egress-port bridge-port 1 3

configure flows flow ETH\_V400\_PW reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V400\_PW no shutdown

configure flows flow ETH\_V400\_PW\_out classifier V400

configure flows flow ETH\_V400\_PW\_out no policer

configure flows flow ETH\_V400\_PW\_out ingress-port lag 1

configure flows flow ETH\_V400\_PW\_out egress-port bridge-port 1 1

configure flows flow ETH\_V400\_PW\_out reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V400\_PW\_out no shutdown

configure flows flow ETH\_V1000\_Data classifier V1000

configure flows flow ETH\_V1000\_Data policer profile 10m

configure flows flow ETH\_V1000\_Data ingress-port ethernet 1/1

configure flows flow ETH\_V1000\_Data egress-port bridge-port 1 3

configure flows flow ETH\_V1000\_Data reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V1000\_Data no shutdown

configure flows flow ETH\_V1000\_Data\_out classifier V1000

configure flows flow ETH\_V1000\_Data\_out no policer

configure flows flow ETH\_V1000\_Data\_out ingress-port lag 1

configure flows flow ETH\_V1000\_Data\_out egress-port bridge-port 1 1

configure flows flow ETH\_V1000\_Data\_out reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V1000\_Data\_out no shutdown

commit

save

##### Ethernet service from SHDSL over SDH

################################################################

######## QUALITY OF SERVICE ########

################################################################

configure qos

queue-block-profile shdsl

exit all

configure qos shaper-profile 11392 bandwidth cir 11392

configure qos queue-group-profile shdsl\_4wire

queue-block 0/1 profile shdsl

queue-block 0/1 shaper profile 11392

exit all

################################################################

############ PORT CONFIGURATION ##################

################################################################

configure port shdsl 5/1 no line-prob

configure port shdsl 5/1 data-rate maximum 11408

configure port shdsl 5/1 stu central

configure port shdsl 5/1 tc hdlc

configure port shdsl 5/1 wires 4

configure port shdsl 5/1 far-end-type non-managed

configure port shdsl 5/1 no shutdown

configure port pcs 5/1 bind shdsl 5/1

configure port pcs 5/1 queue-group profile shdsl\_4wire

configure port pcs 5/1 no shutdown

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 port 51 no shutdown

configure bridge 1 vlan-aware

configure bridge 1

vlan 500

tagged-egress 1,51

exit

vlan 84

tagged-egress 51

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile vlan500 match-any match vlan 500

configure flows flow vlan\_mng\_pcs\_5\_1 classifier V84

configure flows flow vlan\_mng\_pcs\_5\_1 ingress-port pcs 5/1

configure flows flow vlan\_mng\_pcs\_5\_1 egress-port bridge-port 1 51

configure flows flow vlan\_mng\_pcs\_5\_1 reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow vlan\_mng\_pcs\_5\_1 no shutdown

configure flows flow vlan\_500\_pcs\_5\_1 classifier vlan500

configure flows flow vlan\_500\_pcs\_5\_1 ingress-port pcs 5/1

configure flows flow vlan\_500\_pcs\_5\_1 egress-port bridge-port 1 51

configure flows flow vlan\_500\_pcs\_5\_1 reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow vlan\_500\_pcs\_5\_1 no shutdown

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/2/3

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/1

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/2

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/3

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/2/1/1

configure port vcg cl-a/2 no shutdown

configure port gfp cl-a/2 bind vcg cl-a/2

configure port gfp cl-a/2 no shutdown

configure qos queue-block-profile DSL

exit

shaper-profile DSL bandwidth cir 10240

queue-group-profile DSL

queue-block 0/1

profile DSL

shaper profile DSL

exit all

configure port logical-mac cl-a/2 bind gfp cl-a/2

configure port logical-mac cl-a/2 queue-group profile DSL

configure port logical-mac cl-a/2 no shutdown

configure bridge 1

 port 5

 no shutdown

 exit

 vlan 500

 tagged-egress 5

 exit all

configure flows flow "vcq\_V500\_DSL\_out"

 classifier "vlan500"

 no policer

 ingress-port logical-mac cl-a/2

 egress-port bridge-port 1 5

 reverse-direction queue-map-profile "P\_bit" block 0/1

 no shutdown

 exit

commit

save

* 1. Megaplex-4\_B Settings

##### Frame type Sonet

##########################################

#run this scrip manual ,command by command

##########################################

1. config slot cl-b card-type cl cl2-622gbea

 commit

2. conf port sdh-sonet cl-a/1 frame-type sonet

 commit

 save

3. admin reboot

 yes

##### Management configuration script

################################################################

######## QUALITY OF SERVICE ########

################################################################

##### Define a new Queue Group profile #####

configure qos queue-block-profile Eth

exit all

configure qos shaper-profile 1000 bandwidth cir 1000000

configure qos queue-group-profile 1000

queue-block 0/1

shaper profile 1000

profile Eth

exit all

configure qos

queue-map-profile P\_bit classification p-bit

map 0 to-queue 7

map 1 to-queue 6

map 2 to-queue 5

map 3 to-queue 4

map 4 to-queue 3

map 5 to-queue 2

map 6 to-queue 1

map 7 to-queue 0

exit all

################################################################

######## PORT CONFIGURATION ########

################################################################

configure port svi 1 no shutdown

configure port l2cp-profile l2cpLAG\_OAM mac 01-80-C2-00-00-02 peer

configure port ethernet cl-a/1 l2cp profile l2cpLAG\_OAM

configure port ethernet cl-b/1 l2cp profile l2cpLAG\_OAM

configure port lag 1

bind ethernet cl-a/1

bind ethernet cl-b/1

lacp tx-activity passive tx-speed slow

distribution-method dest-mac

queue-group profile 1000

no shutdown

exit all

configure port ethernet cl-a/1 no shutdown

configure port ethernet cl-b/1 no shutdown

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 vlan-aware

configure bridge 1

aging-time 60

port 1

no shutdown

exit

port 2

no shutdown

exit

vlan 84

tagged-egress 1,2

exit

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile V84 match-any match vlan 84

configure flows classifier-profile all match-any match all

configure flows flow mng\_in classifier V84

configure flows flow mng\_in ingress-port lag 1

configure flows flow mng\_in egress-port bridge-port 1 1

configure flows flow mng\_in reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow mng\_in no shutdown

configure flows flow mng\_router\_out classifier V84

configure flows flow mng\_router\_out ingress bridge-port 1 2

configure flows flow mng\_router\_out egress-port svi 1

configure flows flow mng\_router\_out vlan-tag pop vlan

configure flows flow mng\_router\_out no shutdown

configure flows flow mng\_router\_in classifier all

configure flows flow mng\_router\_in ingress svi 1

configure flows flow mng\_router\_in egress-port bridge-port 1 2

configure flows flow mng\_router\_in vlan-tag push vlan 84 p-bit fixed 1

configure flows flow mng\_router\_in no shutdown

################################################################

######## MNG CONFIGURATION ########

################################################################

configure router 1

interface 1

bind svi 1

address 172.18.171.181/24

no shutdown

exit

static-route 0.0.0.0/0 address 172.18.171.1

exit all

configure system name MP\_B

commit

##### clocking

exit all

#External 2mhz clock

config system clock station cl-a/1 interface-type 2mhz

config system clock station cl-a/1 no shutdown

config system clock station cl-b/1 interface-type 2mhz

config system clock station cl-b/1 no shutdown

config system clock domain 1

source 1 station cl-a/1

 priority 1

 quality-level prs

 wait-to-restore 0

 exit

#Clock Source Configuration

source 2 station cl-b/1

 priority 2

 quality-level prs

 wait-to-restore 0

exit all

#SyncE ETX205\_TDM

conf port ethernet 1/1

l2cp profile l2cpLAG\_OAM

tx-ssm

exit all

commit

##### Ethernet service from ETX-205\_B

configure port ethernet 1/1 queue-group profile 1000

configure port ethernet 1/1 no shutdown

configure qos

policer-profile 10m

bandwidth cir 10000 cbs 65535

exit all

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 port 3 no shutdown

exit all

configure bridge 1

vlan 84

tagged-egress 3

exit

vlan 400

tagged-egress 1,3

exit

vlan 1000

tagged-egress 1,3

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile V400 match-any match vlan 400

configure flows classifier-profile V1000 match-any match vlan 1000

configure flows flow ETH\_205\_MNG classifier V84

configure flows flow ETH\_205\_MNG no policer

configure flows flow ETH\_205\_MNG ingress-port ethernet 1/1

configure flows flow ETH\_205\_MNG egress-port bridge-port 1 3

configure flows flow ETH\_205\_MNG reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_205\_MNG no shutdown

configure flows flow ETH\_V400\_PW classifier V400

configure flows flow ETH\_V400\_PW no policer

configure flows flow ETH\_V400\_PW ingress-port ethernet 1/1

configure flows flow ETH\_V400\_PW egress-port bridge-port 1 3

configure flows flow ETH\_V400\_PW reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V400\_PW no shutdown

configure flows flow ETH\_V400\_PW\_out classifier V400

configure flows flow ETH\_V400\_PW\_out no policer

configure flows flow ETH\_V400\_PW\_out ingress-port lag 1

configure flows flow ETH\_V400\_PW\_out egress-port bridge-port 1 1

configure flows flow ETH\_V400\_PW\_out reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V400\_PW\_out no shutdown

configure flows flow ETH\_V1000\_Data classifier V1000

configure flows flow ETH\_V1000\_Data policer profile 10m

configure flows flow ETH\_V1000\_Data ingress-port ethernet 1/1

configure flows flow ETH\_V1000\_Data egress-port bridge-port 1 3

configure flows flow ETH\_V1000\_Data reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V1000\_Data no shutdown

configure flows flow ETH\_V1000\_Data\_out classifier V1000

configure flows flow ETH\_V1000\_Data\_out no policer

configure flows flow ETH\_V1000\_Data\_out ingress-port lag 1

configure flows flow ETH\_V1000\_Data\_out egress-port bridge-port 1 1

configure flows flow ETH\_V1000\_Data\_out reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow ETH\_V1000\_Data\_out no shutdown

commit

save

##### Ethernet service from SHDSL over SDH

################################################################

######## ########

#### SCRIPT FOR VS-SHDSL on Ethernet port #####

######## ########

################################################################

################################################################

######## QUALITY OF SERVICE ########

################################################################

configure qos

queue-block-profile shdsl

exit all

configure qos shaper-profile 11392 bandwidth cir 11392

configure qos queue-group-profile shdsl\_4wire

queue-block 0/1 profile shdsl

queue-block 0/1 shaper profile 11392

exit all

################################################################

############ PORT CONFIGURATION ##################

################################################################

configure port shdsl 5/1 no line-prob

configure port shdsl 5/1 data-rate maximum 11408

configure port shdsl 5/1 stu central

configure port shdsl 5/1 tc hdlc

configure port shdsl 5/1 wires 4

configure port shdsl 5/1 far-end-type non-managed

configure port shdsl 5/1 no shutdown

configure port pcs 5/1 bind shdsl 5/1

configure port pcs 5/1 queue-group profile shdsl\_4wire

configure port pcs 5/1 no shutdown

################################################################

######## BRIDGE CONFIGURATION ########

################################################################

configure bridge 1 port 51 no shutdown

configure bridge 1 vlan-aware

configure bridge 1

vlan 500

tagged-egress 1,51

exit

vlan 84

tagged-egress 51

exit all

################################################################

######## FLOWS CONFIGURATION ########

################################################################

configure flows classifier-profile vlan500 match-any match vlan 500

configure flows flow vlan\_mng\_pcs\_5\_1 classifier V84

configure flows flow vlan\_mng\_pcs\_5\_1 ingress-port pcs 5/1

configure flows flow vlan\_mng\_pcs\_5\_1 egress-port bridge-port 1 51

configure flows flow vlan\_mng\_pcs\_5\_1 reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow vlan\_mng\_pcs\_5\_1 no shutdown

configure flows flow vlan\_500\_pcs\_5\_1 classifier vlan500

configure flows flow vlan\_500\_pcs\_5\_1 ingress-port pcs 5/1

configure flows flow vlan\_500\_pcs\_5\_1 egress-port bridge-port 1 51

configure flows flow vlan\_500\_pcs\_5\_1 reverse-direction queue-map-profile P\_bit block 0/1

configure flows flow vlan\_500\_pcs\_5\_1 no shutdown

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/2/3

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/1

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/2

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/1/3/3

configure port vcg cl-a/2 bind vc-vt cl-a/1/1/2/1/1

configure port vcg cl-a/2 no shutdown

configure port gfp cl-a/2 bind vcg cl-a/2

configure port gfp cl-a/2 no shutdown

configure qos queue-block-profile DSL

exit

shaper-profile DSL bandwidth cir 10240

queue-group-profile DSL

queue-block 0/1

profile DSL

shaper profile DSL

exit all

configure port logical-mac cl-a/2 bind gfp cl-a/2

configure port logical-mac cl-a/2 queue-group profile DSL

configure port logical-mac cl-a/2 no shutdown

configure bridge 1

port 5

no shutdown

exit

vlan 500

tagged-egress 5

exit all

configure flows flow "vcg\_V500\_DSL\_out"

 classifier "vlan500"

 no policer

 ingress-port logical-mac cl-a/2

 egress-port bridge-port 1 5

 reverse-direction queue-map-profile "P\_bit" block 0/1

 no shutdown

 exit

commit

save

* 1. ETX-205\_A Settings

##### Factory default

admin factory-default

##### Queues Configuration

exit all

configure qos queue-group-profile QGN1

queue-block 0/3

exit all

configure port eth 1 queue-group profile QGN1

exit all

configure qos queue-group-profile QGN2

exit all

configure port eth 2 queue-group profile QGN2

exit all

configure qos queue-group-profile QGN3

exit all

configure port eth 3 queue-group profile QGN3

exit all

configure qos queue-group-profile QGN4

exit all

configure port eth 4 queue-group profile QGN4

exit all

configure qos queue-group-profile QGN5

exit all

configure port eth 5 queue-group profile QGN5

exit all

configure qos queue-group-profile QGN6

exit all

configure port eth 6 queue-group profile QGN6

exit all

save

##### Management configuration script

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*SNMP Configuration\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure system name "ETX-205\_A"

exit all

configure management

snmp

target-params "PC\_69"

 message-processing-model snmpv3

 version usm

 security name "initial" level no-auth-no-priv

 no shutdown

exit

target "a"

 target-params "PC\_69"

 address udp-domain 172.17.150.69

 no shutdown

 tag-list "unmasked"

 trap-sync-group 1

exit

config-change-notification

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END SNMP Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Inband MNG \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port svi 1

no shutdown

exit all

configure flows classifier-profile "all" match-any match all

configure flows classifier-profile "VLAN\_84" match-any match vlan 84

configure flows flow "Eth\_1\_svi\_1"

 classifier "VLAN\_84"

 no policer

 vlan-tag pop vlan

 ingress-port ethernet 1

 egress-port svi 1 queue 0

 no shutdown

exit all

configure flows flow "svi\_1\_Eth\_1"

 classifier "all"

 no policer

 ingress-port svi 1

 egress-port ethernet 1 queue 0 block 0/1

 vlan-tag push vlan 84 p-bit fixed 0

 no shutdown

exit all

configure router 1

name "Router#1"

interface 1

 address 172.18.171.182/24

 bind svi 1

 no shutdown

exit

static-route 0.0.0.0/0 address 172.18.171.1

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END Inband MNG \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Save

##### T1 SATOP PW configuration

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* SVI for PW \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port svi 2

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PW Flows \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure flows

classifier-profile match\_all match-any

match all

exit all

configure flows

classifier-profile VLAN400 match-any

match vlan 400

exit all

configure flows flow "p1\_svi2"

classifier "VLAN400"

vlan-tag pop vlan

ingress-port ethernet 1

egress-port svi 2 queue 0

no shutdown

exit all

configure flows flow "svi2\_p1"

classifier "match\_all"

vlan-tag push vlan 400 p-bit fixed 7

ingress-port svi 2

egress-port ethernet 1 queue 0 block 0/2

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PW peer \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure peer 1 mac 00-20-D2-54-55-B6

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* DS1 - Port Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port ds1 1

frame-type t1

exit all

configure port ds1 2

frame-type t1

exit all

configure port ds1 3

frame-type t1

exit all

configure port ds1 4

frame-type t1

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PWE - Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure pwe pw 1 type t1satop psn ethernet

peer 1

label in 1 out 1

vlan priority 7

tdm-payload size 192

jitter-buffer 10000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 2 type t1satop psn ethernet

peer 1

label in 2 out 2

vlan priority 7

tdm-payload size 192

jitter-buffer 10000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 3 type t1satop psn ethernet

peer 1

label in 3 out 3

vlan priority 7

tdm-payload size 192

jitter-buffer 10000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 4 type t1satop psn ethernet

peer 1

label in 4 out 4

vlan priority 7

tdm-payload size 192

jitter-buffer 10000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* t1 - Port Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port

l2cp-profile "SyncE"

mac 0x02 peer

exit all

configure port ethernet 1

tx-ssm

l2cp profile SyncE

exit all

configure system clock domain 1

 sync-network-type 1

 quality min-level-station sec

 mode auto

 force-t4-as-t0

 echo "Clock Source Configuration"

# Clock Source Configuration

 source 1 rx-port ethernet 1

 priority 2

 quality-level ssm-based

 wait-to-restore 0

 hold-off 300

exit all

configure port t1 1

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

configure port t1 2

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

configure port t1 3

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

configure port t1 4

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Cross-connect - Configuration \*\*\*\*\*\*\*\*\*\*\*

configure cross-connect pw-tdm pw 1 t1 1

configure cross-connect pw-tdm pw 2 t1 2

configure cross-connect pw-tdm pw 3 t1 3

configure cross-connect pw-tdm pw 4 t1 4

exit all

save

##### Ethernet service

configure flows classifier-profile "VLAN\_1000" match-any match vlan 1000

configure flows flow "Eth\_1\_Eth\_3"

 classifier "VLAN\_1000"

 no policer

 ingress-port ethernet 1

 egress-port ethernet 3 queue 0 block 0/1

 vlan-tag pop vlan

 no shutdown

exit all

configure flows flow "Eth\_3\_Eth\_1"

 classifier "all"

 ingress-port ethernet 3

 egress-port ethernet 1 queue 0 block 0/3

 vlan-tag push vlan 1000 p-bit fixed 0

 no shutdown

exit all

save

* 1. ETX-205\_B Settings

##### Factory default

admin factory-default

##### Queues Configuration

exit all

configure qos queue-group-profile QGN1

queue-block 0/3

exit all

configure port eth 1 queue-group profile QGN1

exit all

configure qos queue-group-profile QGN2

exit all

configure port eth 2 queue-group profile QGN2

exit all

configure qos queue-group-profile QGN3

exit all

configure port eth 3 queue-group profile QGN3

exit all

configure qos queue-group-profile QGN4

exit all

configure port eth 4 queue-group profile QGN4

exit all

configure qos queue-group-profile QGN5

exit all

configure port eth 5 queue-group profile QGN5

exit all

configure qos queue-group-profile QGN6

exit all

configure port eth 6 queue-group profile QGN6

exit all

save

##### Management configuration script

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*SNMP Configuration\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure system name "ETX-205\_B"

exit all

configure management

snmp

target-params "PC\_69"

 message-processing-model snmpv3

 version usm

 security name "initial" level no-auth-no-priv

 no shutdown

exit

target "a"

 target-params "PC\_69"

 address udp-domain 172.17.150.69

 no shutdown

 tag-list "unmasked"

 trap-sync-group 1

exit

config-change-notification

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END SNMP Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Inband MNG \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port svi 1

no shutdown

exit all

configure flows classifier-profile "all" match-any match all

configure flows classifier-profile "VLAN\_84" match-any match vlan 84

configure flows flow "Eth\_1\_svi\_1"

 classifier "VLAN\_84"

 no policer

 vlan-tag pop vlan

 ingress-port ethernet 1

 egress-port svi 1 queue 0

 no shutdown

exit all

configure flows flow "svi\_1\_Eth\_1"

 classifier "all"

 no policer

 ingress-port svi 1

 egress-port ethernet 1 queue 0 block 0/1

 vlan-tag push vlan 84 p-bit fixed 0

 no shutdown

exit all

configure router 1

name "Router#1"

interface 1

 address 172.18.171.183/24

 bind svi 1

 no shutdown

exit

static-route 0.0.0.0/0 address 172.18.171.1

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END Inband MNG \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

save

##### T1 SATOP PW configuration

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* SVI for PW \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port svi 2

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PW Flows \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure flows

classifier-profile match\_all match-any

match all

exit all

configure flows

classifier-profile VLAN400 match-any

match vlan 400

exit all

configure flows flow "p1\_svi2"

classifier "VLAN400"

vlan-tag pop vlan

ingress-port ethernet 1

egress-port svi 2 queue 0

no shutdown

exit all

configure flows flow "svi2\_p1"

classifier "match\_all"

vlan-tag push vlan 400 p-bit fixed 7

ingress-port svi 2

egress-port ethernet 1 queue 0 block 0/2

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PW peer \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure peer 1 mac 00-20-D2-51-CE-D2

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* DS1 - Port Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port ds1 1

frame-type e1

exit all

configure port ds1 2

frame-type e1

exit all

configure port ds1 3

frame-type e1

exit all

configure port ds1 4

frame-type e1

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* PWE - Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure pwe pw 1 type e1satop psn ethernet

peer 1

label in 1 out 1

vlan priority 7

tdm-payload size 256

jitter-buffer 15000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 2 type e1satop psn ethernet

peer 1

label in 2 out 2

vlan priority 7

tdm-payload size 256

jitter-buffer 15000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 3 type e1satop psn ethernet

peer 1

label in 3 out 3

vlan priority 7

tdm-payload size 256

jitter-buffer 15000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

configure pwe pw 4 type e1satop psn ethernet

peer 1

label in 4 out 4

vlan priority 7

tdm-payload size 256

jitter-buffer 15000

egress-port svi 2

psn-oos 1-bit

pm-enable

no shutdown

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* e1 - Port Configuration \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

configure port

l2cp-profile "SyncE"

mac 0x02 peer

exit all

configure port ethernet 1

tx-ssm

l2cp profile SyncE

exit all

configure system clock domain 1

 sync-network-type 1

 quality min-level-station sec

 mode auto

 force-t4-as-t0

 echo "Clock Source Configuration"

# Clock Source Configuration

 source 1 rx-port ethernet 1

 priority 2

 quality-level ssm-based

 wait-to-restore 0

 hold-off 300

exit all

configure port e1 1

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

configure port e1 2

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

configure port e1 3

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

configure port e1 4

no shutdown

tx-clock-source domain 1

line-type unframed

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Cross-connect - Configuration \*\*\*\*\*\*\*\*\*\*\*

configure cross-connect pw-tdm pw 1 e1 1

configure cross-connect pw-tdm pw 2 e1 2

configure cross-connect pw-tdm pw 3 e1 3

configure cross-connect pw-tdm pw 4 e1 4

exit all

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Router interface \*\*\*\*\*\*\*\*\*\*\*

save

* 1. ASMi-53\_A Settings

##### Factory default

 ASMi-53

Configuration>System

 1. Management >

 2. Remote SW downloading >

 3. Reset to factory default

 4. Reset device

 5. Fault Propagation >

 6. TDM Mode > (2M)

========================================

 3. Reset to factory default

========================================

##### ASMi-53 – transparent modem

Configuration>Applications>Bridge

 VLAN Mode (Unaware)

 1. Forwarding Mode (Filter)

 2. Aging Time (sec)[10 - 10000] ... (300)

 3. sTAG mode (Transparent)

##### E1 unframed

Configuration>Physical Layer>E1

 Idle Code[0 - ff] ... (55)

 1. Administrative Status (Up)

 2. Line Type > (Unframed)

 3. Internal DS1 >

##### Management

Configuration>System>Management>Host IP parameters

 1. IP Address ... (172.18.171.184)

 2. IP Mask ... (255.255.255.0)

 3. Default Gateway ... (172.18.171.1)

Configuration>System>Management>Host Vlan

 1. Management traffic VLAN [1 - 4094] ... (84)

 2. Management traffic priority [0 - 7] ... (7)

* 1. ASMi-53\_B Settings

##### Factory default

 ASMi-53

Configuration>System

 1. Management >

 2. Remote SW downloading >

 3. Reset to factory default

 4. Reset device

 5. Fault Propagation >

 6. TDM Mode > (2M)

========================================

 3. Reset to factory default

========================================

##### ASMi-53 – transparent modem

Configuration>Applications>Bridge

 VLAN Mode (Unaware)

 1. Forwarding Mode (Filter)

 2. Aging Time (sec)[10 - 10000] ... (300)

 3. sTAG mode (Transparent)

##### E1 unframed

Configuration>Physical Layer>E1

 Idle Code[0 - ff] ... (55)

 1. Administrative Status (Up)

 2. Line Type > (Unframed)

 3. Internal DS1 >

##### Management

Configuration>System>Management>Host IP parameters

 1. IP Address ... (172.18.171.185)

 2. IP Mask ... (255.255.255.0)

 3. Default Gateway ... (172.18.171.1)

Configuration>System>Management>Host Vlan

 1. Management traffic VLAN [1 - 4094] ... (84)

 2. Management traffic priority [0 - 7] ... (7)