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Ericsson Internal			1 (7)
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EVEASTH Veeresh Asthana			
Document Number	Revision	Date	Reference
		2020-03-26	



MOP- SFP TX Bias Low at LTU2_155 OEM Ericsson

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A: Introduction

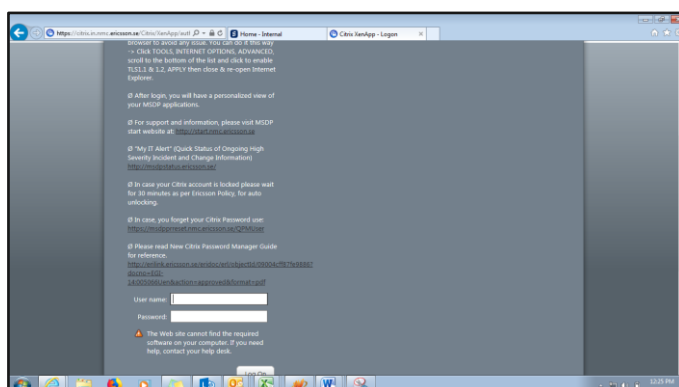
This document outlines the systematic process involved in SFP TX Bias Low at LTU2_155 alarm clearance on node.

B: PRECHECK

1. Check if impacted site node ping is available, if not align FE immediately.
2. If FE alignment required, he should be having required hardware.
3. FE should be having necessary software on his laptop, necessary node login tools.
4. Please check to have complete PCM path i.e. POP node to issue node.
5. Please take manual backup of traffic routing, in worst case cross connection may be deleted.
6. If partial outage is there from any node, and while rectification activity, other sites also can go down for time being, ensure to have proper approval for outage window for all dependent sites for working node.

C: Procedure

1. Login MSDP through below mentioned link.
<https://citrix.in.nmc.ericsson.se/>
2. Provide CITRIX username and password.



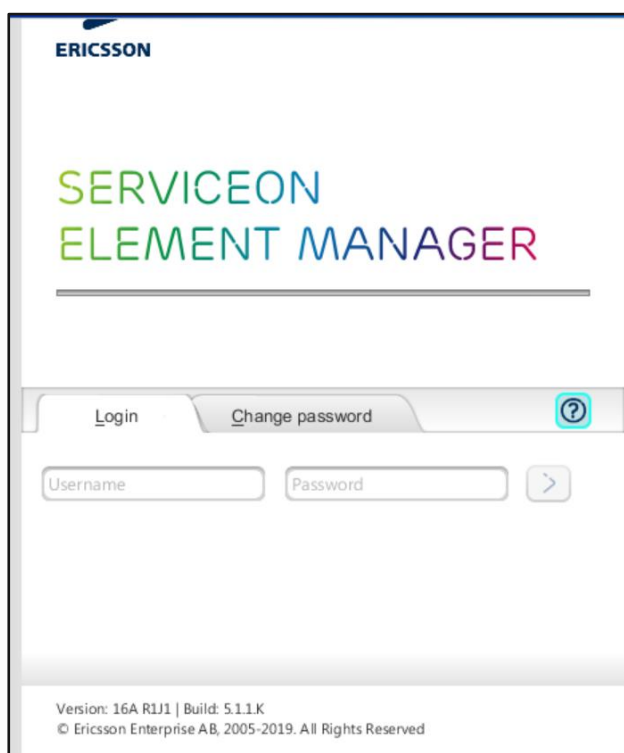
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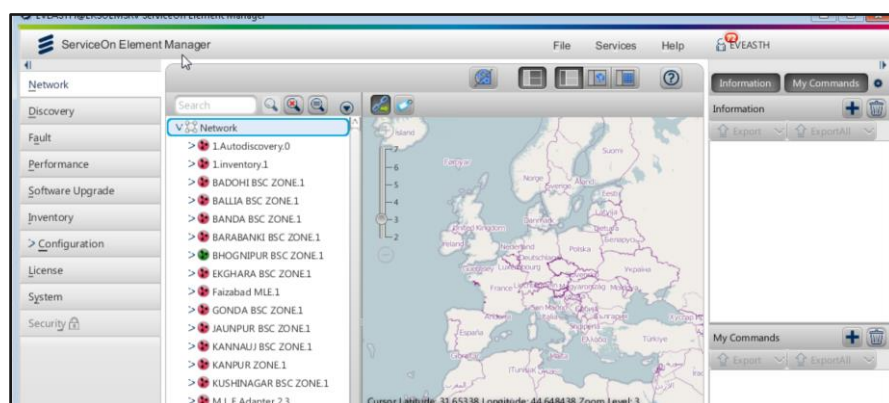
3. Click on [Main](#) > [Xenapp6.5](#) > **Bharti Noida** > **Bharti INNO Remote Desktop Client**.



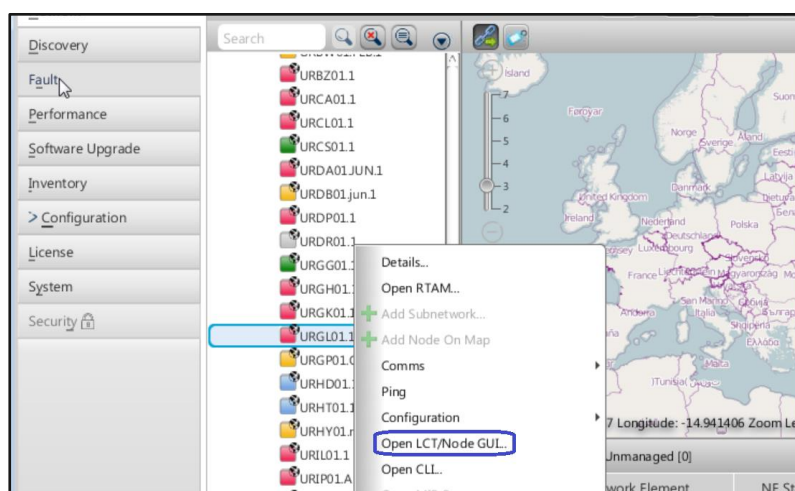
4. Now login the RSG with RSG IP & credentials.
5. Launch the GUI & login with credentials.



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- Search the required Node ID in GUI & If node is managed, then open node using SO-EM GUI or directly from Mini-Link Craft using node IP.



MINI-LINK Craft 19.Q2

NE Filter:

IP/Host:

User:

Password:

SNMP Authentication:

SNMP Privacy:

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7. Check the alarms on the node.

Example Node having alarm

The screenshot shows the 'Network Element' management interface. On the left is a 'Management Tree' showing a hierarchy of network elements. The main area displays the 'NE Status' (In Service), 'NE Uptime' (163 Days 02 hours 42 min 51 seconds), and 'NE License Status' (OK). Below this is a 'Unit Overview' section showing a bar chart of units: PFU3 B (1), FAU2 (1), MMU3 A (S04C) (6), MMU2 H (SIB4) (5), and NPU3 C (8/7). On the right, 'NE Alarms' are listed: Power Failure Upper Input (N/A), Power Failure Lower Input (N/A), Traffic Failure (No Alarm), and Control Failure (No Alarm). At the bottom, a 'Notification List' table shows several critical alarms related to SFP voltage and power issues.

Severity	AlarmType	AlarmID	AlarmTime	Source	SpecificProblem	ProbableCause
Critical	equipmentAlarm	545	2020-01-06 11:47:34.5	SFPo 1/2.2	SFP Voltage Low at LTU2_155	ReplaceableUnitProblem
Critical	equipmentAlarm	546	2020-01-06 11:47:34.6	SFPo 1/2.2	SFP TX Bias Low at LTU2_155	ReplaceableUnitProblem
Critical	equipmentAlarm	547	2020-01-06 11:47:34.7	SFPo 1/2.2	SFP TX Power Low at LTU2_155	ReplaceableUnitProblem
Critical	equipmentAlarm	548	2020-01-06 11:47:34.7	SFPo 1/2.2	SFP RX Power Low at LTU2_155	ReplaceableUnitProblem

8. Check the SFP configuration, if configuration is incorrect then need to correct the same and check alarm status.

SFPo 1/6.2 - Configuration

Oper Status: In Service

Admin Status: In Service

Notifications: ☒

SFP Type: GE 1000Mbit/s, 1000BASE-LX-10-SM

SFP Diagnostic Alarm Limits

	Low	Low Warning	High Warning	High
Temperature (°C)	-45.0000	-40.0000	95.0000	100.0000
Supply Voltage (V)	3.0000	3.1000	3.5000	3.6000
Bias Current (mA)	2.0000	3.0000	70.0000	80.0000
RX Power (mW)	0.0079	0.0099	0.6308	0.7942
TX Power (mW)	0.0794	0.1000	0.6310	0.7943



SFPo 1/5.1 - Configuration

Oper Status: In Service

Admin Status: In Service

Notifications: ☒

SFP Type: S-1.1

Port Protection

Protecting SFP: SFPo 1/5.2


Protection Mode: Automatic


Active SFP: SFPo 1/5.1

SFP Diagnostic Alarm Limits

	Low	Low Warning	High Warning	High
Temperature (°C)	-45.0000	-40.0000	95.0000	100.0000
Supply Voltage (V)	2.8000	2.9700	3.6000	3.8000
Bias Current (mA)	2.9960	3.0980	69.9720	79.9680
RX Power (mW)	3.0E-4	7.0E-4	0.1584	0.1994
TX Power (mW)	0.0199	0.0250	0.1989	0.2504

9. Check the software compatibility of the LTU card, LTU software must be compatible with Baseline.


MINI-LINK Crant menu


SIB004

RAU2 X 15/24	1/5.1	UKL40168/24	R4A	A231085TU1
MMU3 A	1/6	ROJ 208 1311/1	R2A	CN31705934
RAU2 X 15/23	1/6.1	UKL40168/23	R3A	A23108186M
NPU3 C	1/7	ROJR 211 006/2	R1B	S631232419
RMM	1/7.1	RYS 110 243/1	R1C	B580635170

Software Information

Software	Rack/Position	Product Number	Release	Part of MINI-LINK_TN_5.4FP.4_LH_1.6FP.4_R33C133
LTU2 155	1/2	CXC 173 1531/1	R2M02	Yes
LTU 155e/o	1/3	CXCR 102 004/1	R6N03	Yes
MMU2 H	1/5	CXP 901 1133/6	R17C11	Yes
RAU2 X 15/24	1/5.1	CXP 901 2878	R5A04	N/A. (Radio SW is not part of baseline.)
MMU3 A	1/6	CXP 901 1133/7	R8C22	Yes
RAU2 X 15/23	1/6.1	CXP 901 2878	R5A04	N/A. (Radio SW is not part of baseline.)
NPU3 C	1/7	CXP 901 2516/5	R33C133	Yes

Common Information

Common	Product Number	Release
Software Baseline	CXP9010021_1	MINI-LINK_TN_5.4FP.4_LH_1.6FP.4_R33C133

10. Perform JOJI the SFP and check the alarm status, if alarm cleared the monitor the alarms.
11. If alarm is not cleared, perform cleaning on patch chord and check alarm status.
12. If alarm not cleared, replace the SFP module with compatible SFP with LTU and monitor the alarms.



Compatible SFP List:

Product number	Description	MMU2 E & F	LTU2 155	MMU3 B
RDH 901 20/29902 ¹⁰ R4A	SFP S-1e electrical - 5/+85C	3.2	4.4FP.2	5.3
RDH 901 20/20213 R4A	SFP S-1.1 1310nm -5/+85C	3.2	4.4FP.2	5.3
RDH 901 20/B0213 R4A	SFP S-1.1 1310nm - 40/+85C	-	4.4FP.2	-
RDH 901 20/B0228 R4A	SFP L-1.1 1310nm - 40/+85C	4.4FP.2	4.4FP.2	5.3
RDH 901 20/B1424 R4A	SFP L-1.2 1550nm - 40/+85C	4.4FP.2	4.4FP.2	5.3
RDH 901 20/B1424 R4A	SFP L-1.2 1550nm - 40/+85C	4.4FP.2	4.4FP.2	5.3
RDH 102 48/20	SFP BiDi FE/STM1 1550nm/1310nm -40/+85C	-	4.4FP.2	-
RDH 102 48/21	SFP BiDi FE/STM1 1310nm/1550nm -40/+85C	-	4.4FP.2	-
RDH 901 20/81028 R4A	SFP L-1/4/16.2C GE CWDM 1470 80KM 0/+70C	-	4.4FP.2	-
RDH 901 20/81128 R4A	SFP L-1/4/16.2C GE CWDM 1490 80KM 0/+70C	-	4.4FP.2	-
RDH 901 20/81228 R4A	SFP L-1/4/16.2C GE CWDM 1510 80KM 0/+70C	-	4.4FP.2	-
RDH 901 20/81328 R4A	SFP L-1/4/16.2C GE CWDM 1530 80KM 0/+70C	-	4.4FP.2	-
RDH 901 20/81428 R4A	SFP L-1/4/16.2C GE CWDM 1550 80KM 0/+70C	-	4.4FP.2	-
RDH 901 20/81528 R4A	SFP L-1/4/16.2C GE CWDM 1570 80KM 0/+70C	-	4.4FP.2	-
RDH 901 20/81628 R4A	SFP L-1/4/16.2C GE CWDM 1590 80KM 0/+70C	-	4.4FP.2	-
RDH 901 20/81728 R4A	SFP L-1/4/16.2C GE CWDM 1610 80KM 0/+70C	-	4.4FP.2	-

D: Post Check

1. Check alarm should be cleared from node.
2. No new alarm should be generated on node.
3. All services should be restored.

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E: Fall Back Procedure

Since MOP is for clearing alarm so Fall-back procedure is not required.

Please note that the method of procedure is prepared as the current scenario, available devices, and deployed software version. So activity steps and impact can vary depending upon the scenario.in that case we will further communicate.