

MINI-LINK 6352

Release 2.18.1

Release Note

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Contents

1	Introduction	1
2	Product Definition	2
3	New Features	3
3.1	Improved Latency for MBB using hRLB	3
3.2	Enhanced Node GUI	3
4	Corrections	4
4.1	RSTP Configuration of non-PNP Ports	4
4.2	RMM Problem after Startup	4
4.3	Node GUI Unable to Handle CLI Scripts with Spaces in Filename	4
4.4	Port Link State Affected by Poor PTP Quality	4
4.5	Corrupt LRF Files	4
4.6	ENM Unable to Fetch 24 Hour RMON PM Data	4
4.7	ESMC and PTP Quality Degraded by Management VLAN	5
5	New Deliverables	6
5.1	Hardware	6
5.2	Cables and Cable Accessories	6
5.3	Software	6
5.4	Customer Product Information	6
5.5	Licenses	7
6	Order and Availability Information	8
7	Compatibility	9
8	Management Systems	10
9	System Behavior	11
9.1	O&M Port DHCP Server	11
9.2	Service Class Priority Selection	11
9.3	Incorrect WAN Speed in ServiceOn Element Manager Configuration Inventory	11
9.4	WAN Status in CLI Configuration Report	11
9.5	Disabled LAN Ports as Default	11



9.6	Software Upgrade before Replacing Packet Radio in VN Scenario	12
9.7	Switch Over Time in EQP using IPv6 DCN	12
9.8	Changed PTP Time Synchronization Requirements	12
9.9	Interface Out Discards includes Delay Exceeded Discards	12
9.10	Issue with Enumeration Values in CLI Configuration Report	12
9.11	Auto-commit Time for Software Upgrade through Node GUI	13
9.12	CoS on LAG Must be Configured Before Adding LAG Members	13
9.13	RSTP Path Cost for LAG ports	13
9.14	Reboot due to Changing IP Address of VLAN Interface	13
10	Known Limitations to be Corrected in Future Releases	14
10.1	Prefix Setting for IPv6 Route	14
10.2	PTP Sync Lost after EQP Switch	14



1 Introduction

This document contains the release notes for the MINI-LINK 6352 packet radio. New features and known limitations, as well as new deliverables for SW and HW are listed.



2 Product Definition

MINI-LINK 6352 is an all-outdoor microwave radio system for the 70/80 GHz band optimized for packet networks. It supports up to 10 Gbps LAN to LAN capacity in both single carrier and dual carrier bonded configuration. The MINI-LINK 6352/2 hardware also enables and is mandatory for Cross-Polarization Interference Cancelling (XPIC) operation.

Equipment Protection (EQP) can be deployed as either 1+1 Cold Standby (CSB) or 2+0 Radio Link Bonding (RLB) by setting up two identical packet radios in a Virtual Node and configuring traffic ports in a LAG configuration.

MINI-LINK 6352 has 3 x 10 Gbps SFP+ traffic ports and one proprietary Power over Ethernet (PoE) traffic port. The MINI-LINK 6352 has a built in Ethernet switch which has extensive layer 2 functionality.

MINI-LINK 6352 is suitable for all-IP end sites, both for new networks and for expansion of existing networks.

It is possible to expand both existing MINI-LINK TN nodes as well as MINI-LINK 6600/6366 nodes with MINI LINK 6352.

System capacity can be upgraded using Electronic License Keys, which enable flexible increase of license-controlled features and radio link capacity during network expansion.



3 New Features

3.1 Improved Latency for MBB using hRLB

The latency is improved when MINI-LINK 6352 is a member of a MINI-LINK 6600 hRLB group.

3.2 Enhanced Node GUI

The MINI-LINK 6352 Node GUI is enhanced with the following features:

Show status of LAG members

The Node GUI shows the status of the individual ports that are members of a LAG.

Classification and marking

Using the Node GUI to configure the classification and marking of incoming frames is supported.

SOAM for PBF Member Monitoring

Using the Node GUI to set up SOAM for monitoring PBF members is supported.

Show license indicator

For licensed features, the Node GUI shows a lock icon indicating if a license is available for this feature.



4 Corrections

4.1 RSTP Configuration of non-PNP Ports

It was possible to enable RSTP on CNP and CEP ports even if RSTP is only supported for PNP ports.

This is now corrected. It is no longer possible to enable RSTP on CNP and CEP ports.

4.2 RMM Problem after Startup

After starting up MINI-LINK 6352, the RMM may be reported as missing.

This is now corrected.

4.3 Node GUI Unable to Handle CLI Scripts with Spaces in Filename

The Node GUI was unable to open and run script files with spaces in the filename.

This is now corrected.

4.4 Port Link State Affected by Poor PTP Quality

When the system was trying to recover from transients in a network with poor PTP quality, the port link state could be affected.

This is now corrected. Port link state is now independent from recovering from transients.

4.5 Corrupt LRF Files

When using special characters in the location description, generated LRFs would become corrupt.

This is now corrected.

4.6 ENM Unable to Fetch 24 Hour RMON PM Data

The PM file contained incomplete 24 hour RMON PM data.

This is now corrected.



4.7 ESMC and PTP Quality Degraded by Management VLAN

When inserting bursty traffic on the management VLAN, features using multicast control protocol, like SynchE and 1588, may fail to reach the CPU correctly, resulting in poor quality.

This is now corrected.



5 New Deliverables

5.1 Hardware

No new hardware in this release.

5.2 Cables and Cable Accessories

No new cables and accessories in this release.

5.3 Software

Table 1 New Software

Applicable HW	SW Function Designation	Product Number	R-state	Ticket Header SW Gateway
MINI-LINK 6352	MINI-LINK 6352 (SSH)	CXP 902 6371/3	R19C02	T-023389

Note: The SNMP MIBs will also be available with this ticket.

5.3.1 Changes in Base Package

The Base Package has been upgraded with the following features:

- **Improved Latency for MBB using hRLB**, see Section 3.1 on page 3.

5.3.2 Changes in Value Packages

The O&M Usability Value Package has been upgraded with the following features:

- **Show status of LAG members**, see Section 3.2 on page 3.
- **Classification and marking**, see Section 3.2 on page 3.
- **SOAM for PBF Member Monitoring**, see Section 3.2 on page 3.
- **Show license indicator**, see Section 3.2 on page 3.

5.4 Customer Product Information

The MINI-LINK CPI libraries are available at the eBusiness portal (available to customers on the Ericsson extranet).



A user ID and a password are required to access the CPI Extranet service. Access is provided by the Key Account Managers (KAMs) at the Ericsson Local companies.

5.5 Licenses

Electronic License Keys according to 1/221 02-FGC 101 2789.

Base and Value packages according to 2/221 02-FGC 101 2789.



6 Order and Availability Information

Please, use the following Product packages for ordering:

- FAP 130 4224

For support in ordering see:

- Product Catalog, MINI-LINK and Microwave Products, Ordering Guide, 1/2135-FGB 101 004

For ordering, please contact your Ericsson representative.



7 Compatibility

MINI-LINK 6352/2 is hop compatible with, and can replace, MINI-LINK 6352 in any configuration.



8 Management Systems

For local and remote element management, a Command Line Interface and an embedded Node GUI are supported.

For network management of MINI-LINK 6352, it is recommended to use Ericsson Network Manager or ServiceOn Element Manager and Ericsson IP Transport NMS.

Please refer to Release Notes and other product documentation for each Network Management System for more compatibility and feature information.



9 System Behavior

9.1 O&M Port DHCP Server

A DHCP server is available on the O&M port. When enabled, clients connected to the O&M port (via cable or Wi-Fi) request IP address automatically from the DHCP server, reducing the need for manual configuration.

The DHCP server is default enabled, automatically assigning IP addresses from the range 192.168.1.2 - 192.168.1.254, i.e. from the same subnet as the default O&M IP address. If the O&M IP address has been changed to an address outside this default subnet, the DHCP server is not automatically enabled. Instead the DHCP range must be manually reconfigured to correspond to the new O&M IP subnet and then manually enabled.

9.2 Service Class Priority Selection

The service class configuration for UNI, with default attribute best-effort, has been updated with the selectable value use-incoming-cos. In upgrade scenarios where UNI All-to-One has previously been configured, this value must be manually configured to maintain the priority mapping behavior.

9.3 Incorrect WAN Speed in ServiceOn Element Manager Configuration Inventory

Due to changed interface speeds, the Radio Link WAN speed in the Configuration Inventory in older versions of ServiceOn Element Manager (earlier than R1F) can show a negative and incorrect value. If this occurs, use the CLI on the Network Element to show the correct WAN speed.

9.4 WAN Status in CLI Configuration Report

In some configurations, the report created using the CLI Configuration Report function contains an incorrect WAN status, when compared to the status that is shown in the CLI. The reason is that the WAN status is not part of the actual configuration but rather a status indicator included in the Configuration Report for informational purposes.

9.5 Disabled LAN Ports as Default

To enhance security and simplify LAN port licensing, LAN ports are now disabled as default. This means that any LAN port to be used in system operation must be configured as **in service** during commissioning. This also applies in commissioning



using CLI scripts and is especially important in cases where DCN will be used as the main O&M interface.

9.6 Software Upgrade before Replacing Packet Radio in VN Scenario

If a packet radio is deployed to replace a faulty or decommissioned unit in a VN scenario, the NR software versions on the two units must be matching.

To avoid field change problems, always upgrade the replacement packet radio to the software version that is being used on the remaining one (current Active slot) before installation and deployment. Failure to match software versions can lead to CDB or reboot issues.

9.7 Switch Over Time in EQP using IPv6 DCN

When using IPv6 for DCN and a route is set up, and the near-end system does a switch over in EQP, it takes approximately 5 minutes until the near-end system can be reached again. The far-end system can still be reached, and the traffic flow resumes after the EQP switch-over time.

9.8 Changed PTP Time Synchronization Requirements

To synchronize time over PTP, MINI-LINK 6352 previously required a Primary Reference Clock (PRC)- or Primary Reference Source (PRS)-traceable frequency from SyncE. This is no longer required but highly recommended.

9.9 Interface Out Discards includes Delay Exceeded Discards

The ifOutDiscards statistic attribute and MIB item now sums up both port-in-discards and delay-exceeded-discards.

9.10 Issue with Enumeration Values in CLI Configuration Report

The Configuration Report that can be created through the CLI only, can contain enumeration values that are offset by one digit and numerical values that are not meaningful for a reader (for example just 2 instead of the setting DISABLED).



9.11 Auto-commit Time for Software Upgrade through Node GUI

When performing a software upgrade through the Node GUI, the auto-commit time in the system is automatically changed to 1 minute. The auto-commit time can be reconfigured after the software upgrade to any needed value, for example the default setting 60 minutes.

9.12 CoS on LAG Must be Configured Before Adding LAG Members

Changes to the CoS configuration on a LAG is not propagated to existing members.

To change the CoS configuration on a LAG, remove all members before making the change and then add back the members.

9.13 RSTP Path Cost for LAG ports

The RSTP path cost is not correctly calculated for existing LAG ports when enabling RSTP.

Workaround

Remove and then add back a LAG member to update the RSTP path cost.

9.14 Reboot due to Changing IP Address of VLAN Interface

Changing the IP address of the L3-enabled VLAN interface that has been automatically selected as router id will cause the node to reboot.

Recovery

After the reboot a new router id will be chosen and OSPF connectivity will be restored.

Workaround

To avoid traffic disturbance when changing the IP address:

1. Disable OSPF.
2. Change the IP address of the VLAN interface.
3. Enable OSPF.



10 Known Limitations to be Corrected in Future Releases

10.1 Prefix Setting for IPv6 Route

The route-ipv6 command incorrectly displays in the CLI that it is possible to set the value in a range from 0 to 128. The only value that the user can set and that is accepted by the system is prefix length 0.

Workaround

None

10.2 PTP Sync Lost after EQP Switch

For radio links configured for RLB 2+0 with EQP, the Boundary Clock on the slave side is not able to lock after an EQP switch.

Workaround

Trigger a manual switch on the opposite side of the hop.