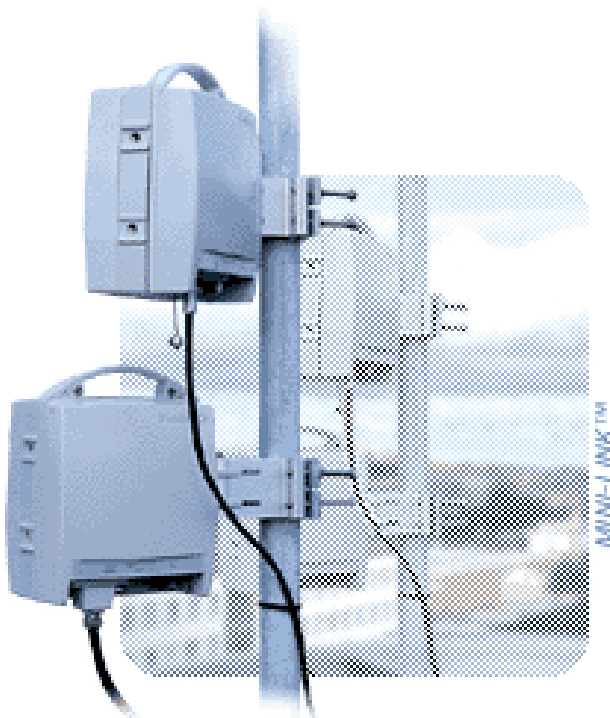


# Release Notes for MINI-LINK Craft

## Release Note





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Furthermore, the contents of this document are subject to revision without notice due to continued progress in methodology, design, and manufacturing.



# 1 Introduction

This document contains release information on all MINI-LINK Craft releases since 18.Q1. New features, improvements, corrections and known limitations are listed.

## 2 MINI-LINK Craft 21.Q1

The new MINI-LINK Craft release 21.Q1 is based on MINI-LINK Craft 20.Q3. Main changes are:

- Support for new node features.
- Trouble reports corrected.

**NOTE:** New features in MINI-LINK 6600, MINI-LINK 6366 and MINI-LINK 6694 are not supported by MINI-LINK Craft and no trouble reports will be corrected. MINI-LINK 6600, MINI-LINK 6366 and MINI-LINK 6694 are only supported in hop views with MMU4 A on near end.

### 2.1 New Features

- **MINI-LINK TN 6.1.9**  
These features are listed in
  - Release Notes for MINI-LINK TN 6.1.9 ([MINI-LINK TN 6.1.9](#))
- **MINI-LINK LH 2.1.9**  
These features are listed in
  - Release Notes for MINI-LINK LH 2.1.9 ([MINI-LINK LH 2.1.9](#))

### 2.2 Corrected Trouble Reports

- Craft login failure using centralized authentication on TN5.4  
The 20.Q3 MINI-LINK Craft can't login to TN5.4 node with SSH CLI and centralized authentication.  
The workaround is using Telnet CLI or local users.  
This problem has been resolved in 21.Q1 release.
- MINI LINK Craft Terminal startup failed on ENM  
The MINI-LINK Craft can't be started on ENM frequently.  
This problem has been resolved in 21.Q1 release.



- Automatic reconnection does not work after node restart with centralized authentication  
The MINI-LINK Craft doesn't automatically reconnect using centralized authentication after node was restarted.  
The workaround is to close the current craft instance and start a new one.  
This problem has been resolved in 21.Q1 release.
- 8-QAM counter should be removed from Craft interface  
The 8 QAM is a non-existent modulation scheme, the MINI-LINK Craft removed the 8 QAM from the *Performance Intervals EnRLB Protected Mode* page and *Performance Intervals EnRLB Extended Mode* page.  
This problem has been resolved in 21.Q1 release.
- Configuration of IF cable monitoring shall not be visible for MINI-LINK LH  
The MINI-LINK Craft removed the IF Cable Monitoring configuration for MINI-LINK LH.  
This problem has been resolved in 21.Q1 release.

## 3 MINI-LINK Craft 20.Q3

The new MINI-LINK Craft release 20.Q3 is based on MINI-LINK Craft 20.Q1. Main changes are:

- Support for new node features.
- Trouble reports corrected.

**NOTE:** New features in MINI-LINK 6600, MINI-LINK 6366 and MINI-LINK 6694 are not supported by MINI-LINK Craft and no trouble reports will be corrected. MINI-LINK 6600, MINI-LINK 6366 and MINI-LINK 6694 are only supported in hop views with MMU4 A on near end.

### 3.1 New Features

- **MINI-LINK TN 6.1.8**  
These features are listed in
  - Release Notes for MINI-LINK TN 6.1.8 ([MINI-LINK TN 6.1.8](#))
- **MINI-LINK LH 2.1.8**  
These features are listed in
  - Release Notes for MINI-LINK LH 2.1.8 ([MINI-LINK LH 2.1.8](#))



## 3.2 Corrected Trouble Reports

- MINI-LINK Craft response very slow for MMU4 A  
The MINI-LINK Craft response very slow with MMU4 A units, one important reason is that Craft does unnecessary auto refreshes at Radio Link Alarm and Status page.  
This problem has been resolved in 20.Q3 release.
- Factory reset doesn't clear the node configuration  
The MINI-LINK TN node configuration was not cleared after selecting Factory Settings from MINI-LINK Craft.  
The workaround was to use the CLI.  
This problem has been resolved in 20.Q3 release.
- MINI-LINK Craft cannot exit when click EXIT button on Node GUI dialog  
The MINI-LINK Craft process hangs when clicking the EXIT button on the Node GUI dialog, the only recovery is killing the process.  
This problem has been resolved in 20.Q3 release.
- Problem with authentication on MINI-LINK  
It's not possible to login to the TN node from the MINI-LINK Craft with centralized authentication. Sometimes it works on the second try.  
This problem has been resolved in 20.Q3 release.
- Current password is requested when changing user's passwords  
In MINI-LINK Craft release 20.Q1 the user must input the current password when changing the password for a non-admin user.  
This problem has been resolved in 20.Q3 release.
- Password with repeating sequences shall be forbidden  
MINI-LINK Craft shall not allow to configure a pure repeated sequence as the password for node's user.  
This problem has been resolved in 20.Q3 release.
- Not possible to enable XPIC and configure the companion position simultaneously  
It's not possible to enable XPIC and configure the companion position at the same time, the workaround is to save the two values one by one.  
This problem has been resolved in 20.Q3 release.
- Spectrum diagnostics for MMU4 A shows dBm values without decimal  
The RF Rx Power is not divided by 10. Values in the range of -999 to -200 shall be divided by 10 for all types of modems.  
This problem has been resolved in 20.Q3 release.



- Tx Switch over Configuration on MMU4 A in 1+1 configuration  
On the Control Protection page, MINI-LINK Craft cannot handle correctly the Tx Switch Over Configuration for TN 6.1.6 and later release. The options "Local" and "Local and Remote" are not supported.  
The workaround was to use CLI  
This problem has been resolved in 20.Q3 release.

## 4 MINI-LINK Craft 20.Q1

The new MINI-LINK Craft release 20.Q1 is based on MINI-LINK Craft 19.Q4. Main changes are:

- Support for new node features.
- Trouble reports corrected.

**NOTE:** New features in MINI-LINK 6600, MINI-LINK 6366 and MINI-LINK 6694 are not supported by MINI-LINK Craft and no trouble reports will be corrected. MINI-LINK 6600, MINI-LINK 6366 and MINI-LINK 6694 are only supported in hop views with MMU4 A on near end.

### 4.1 New Features

- **MINI-LINK TN 6.1.7**  
These features are listed in  
- Release Notes for MINI-LINK TN 6.1.7 ([MINI-LINK TN 6.1.7](#))
- **MINI-LINK LH 2.1.7**  
These features are listed in  
- Release Notes for MINI-LINK LH 2.1.7 ([MINI-LINK LH 2.1.7](#))

### 4.2 Corrected Trouble Reports

- Change password failed when Authentication Protocol is SHA1/SHA2-512  
On the Local User Password page, it's not possible to change the password for the following combinations of SNMPv3 authentication protocol and privacy protocol:
  - SHA1 + DES/AES128
  - SHA2-512 + None/DES/AES128/AES256The workaround was to change the authentication protocol to MD5.  
This problem has been resolved in 20.Q1 release.





- Taking a long time to expand the RL configuration group for far end  
To expand the attributes group of the far end terminal on the Configure Radio Link page takes a long time for an AMM20p node with multiple MMU2 H, MMU3 A and MMU2 D.  
This problem has been resolved in 20.Q1 release.
- Not possible to login with MINI-LINK Craft after changing SNMPv3 settings from CLI  
When the SNMPv3 Authentication protocol or privacy protocol is changed, a connected MINI-LINK Craft can trigger a brute force defense lockout. The duration of the lockout is 15 minutes or until a node warm restart.  
Workaround is to disable brute force defense before changing SNMPv3 settings  
The likelihood of lockout has been reduced in 20.Q1 release, but the brute force defense threshold cannot be too small.
- License Status Improvement - NE Feature Status is missing  
The **NE Feature Status** is missing in 19.Q4 release at the **NE Alarm and Status** page and **License Overview** page. The workaround is to use the CLI.  
This problem has been resolved in 20.Q1 release.
- MINI-LINK Craft response very slow for MMU4 A  
Expanding the Radio Link part of the management tree, opening Radio Link alarms and status page and opening Radio Link Terminal Configuration page for MMU4 A can be very slow.  
The performance has been improved in 20.Q1 release, but it can still be very slow in certain cases (please refer to the MINI-LINK TN R6 Compatibility document).
- Modulation parameters for Far End are not shown  
In the **RLT Alarm and Status** page, sometimes the modulation parameters for the far end are not shown. The workaround was to check the parameters on the Radio Link Terminal configure page.  
This problem has been resolved in 20.Q1 release.
- Unable to connect to equipment, timeout when central authentication and secure-ssh enabled  
The MINILINK Craft sometimes can't login to the MINI-LINK TN node with the following protocol settings:
  - The Secure-Protocols was enabled in the Security/Protocol Settings page.
  - CLI protocol was set to SSHv2 in the Security/Protocol Settings page.
  - Secure ciphers enabled by CLI command secure-ssh enable
  - Centralized Authentication was enabled in the Security/AAA Policy page.
 The workaround was to use the local authentication policy or not enable secure ciphers.  
This problem has been resolved in 20.Q1 release.



## 5 MINI-LINK Craft 19.Q4

The new MINI-LINK Craft release 19.Q4 is based on MINI-LINK Craft 19.Q3. Main changes are:

- Support for new node features.
- Trouble reports corrected.

**NOTE:** New features in MINI-LINK 6600, MINI-LINK 6366 and MINI-LINK 6694 are not supported by MINI-LINK Craft and no trouble reports will be corrected. MINI-LINK 6600, MINI-LINK 6366 and MINI-LINK 6694 are only supported in hop views with MMU4 A on near end.

### 5.1 New Features

- **MINI-LINK TN 6.1.6**  
These features are listed in
  - Release Notes for MINI-LINK TN 6.1.6 ([MINI-LINK TN 6.1.6](#))
- **MINI-LINK LH 2.1.6**  
These features are listed in
  - Release Notes for MINI-LINK LH 2.1.6 ([MINI-LINK LH 2.1.6](#))

### 5.2 Corrected Trouble Reports

- Craft version hide Radio link in management tree  
Expanding the **Radio Links** in the MINI-LINK Craft management tree sometimes doesn't show all radio links. In some cases, only Radio Links using MMU4 A are shown. Workaround was to warm restart the MINI-LINK TN node. This problem has been resolved in 19.Q4 release.
- Performance Degradation of SNCP configure page  
In the **SNCP Configuration page**, the performance when adding or deleting is improved in 19.Q4 release.
- Frequency setting of MINI-LINK 6363 8/14H and 8/14L is not correct  
In the **Radio Link Configure page**, MINI-LINK Craft failed saving the TX frequency as 8xxx.925 MHz but saved 8xxx.900 MHz instead. This problem has been resolved in 19.Q4 release.
- Unexpected dialog pops up after time out of craft login session  
When Craft reached the **Inactivity Timer** with un-saved attributes modification,



an unexpected dialog pops up after exit MINI-LINK Craft.  
This problem has been resolved in 19.Q4 release.

## 6 MINI-LINK Craft 19.Q3

The new MINI-LINK Craft release 19.Q3 is based on MINI-LINK Craft 19.Q2. Main changes are:

- Various improvements.
- Trouble reports corrected.

**NOTE:** New features in MINI-LINK 6600, MINI-LINK 6366 and MINI-LINK 6694 are not supported by MINI-LINK Craft and no trouble reports will be corrected. MINI-LINK 6600, MINI-LINK 6366 and MINI-LINK 6694 are only supported in hop views with MMU4 A on near end.

### 6.1 Improvements

- Exit Confirmation
  - Warning dialog before exit the application if there are any edited attributes which are not saved.
  - In the case of centralized user session is time out, the edited attributes should not be saved, Craft will ignore and exit directly

### 6.2 Corrected Trouble Reports

- Bandwidth profile cannot be configured on 10G port  
On the **Switch Port – Configure QoS** page, bandwidth profile with CIR above 1000 Mbps cannot be configured on a 10G port.  
This problem has been resolved for MINI-LINK TN nodes in 19.Q3 release.
- Cannot configure RLT mode 1+0 on MMU4 A  
With MINI-LINK Craft 19.Q2 it is not possible to configure RLT mode 1+0 if only one RAU is connected to the MMU4 A. Error message: "Can not change RLT mode: One RAU is Out of Service".  
This problem has been resolved for MINI-LINK TN nodes in 19.Q3 release.
- Unable configure MMU4 A after factory cleanup  
On a clean environment of MINI-LINK TN with MMU4 A, it is not possible to configure the radio link parameters with MINI-LINK Craft.  
Workaround: Avoid enabling the **Enable Duplex** attribute when configuring the



radio link parameters the first time.

This problem has been resolved for MINI-LINK TN nodes in 19.Q3 release.

- MINI-LINK PT 2010, multiple attributes in Basic NE page can't be modified  
There are multiple attributes in the **Basic NE** page that can't be saved.  
This problem has been resolved for MINI-LINK PT 2010 node in 19.Q3 release.
- MINI-LINK PT 2010, Layer 1 Connection page freeze  
MINI-LINK Craft opens the incorrect **Ethernet Overview** page which has a link to a not-supported function, **Layer 1 Connection - Configure**. Navigate to this page and it is kept in loading state. No values are displayed in the table.

This problem has been resolved by opening the correct **Ethernet Overview** page for MINI-LINK PT 2010 in 19.Q3 release.

## 7 MINI-LINK Craft 19.Q2

The new MINI-LINK Craft release 19.Q2 is based on MINI-LINK Craft 19.Q1. Main changes are:

- Support for new node features.
- Various improvements.
- Trouble reports corrected.

**NOTE:** New features in MINI-LINK 6600, MINI-LINK 6366 and MINI-LINK 6694 are not supported by MINI-LINK Craft and no trouble reports will be corrected. MINI-LINK 6600, MINI-LINK 6366 and MINI-LINK 6694 are only supported in hop views with MMU4 A on near end.

### 7.1 New Features

- **MINI-LINK TN 6.1.5**  
These features are listed in  
- Release Notes for MINI-LINK TN 6.1.5 ([MINI-LINK TN 6.1.5](#))
- **MINI-LINK LH 2.1.5**  
These features are listed in  
- Release Notes for MINI-LINK LH 2.1.5 ([MINI-LINK LH 2.1.5](#))

### 7.2 Improvements

- Launch far end improvements for MINI-LINK 6600/6366



- The usability of the Logon Dialog is improved. A link to the Node GUI is displayed even if MINI-LINK Craft does not support the node.
- The usability of the Radio Link Alarm and Status page is improved. A link to "Open Far End MINI-LINK Node GUI is displayed and opens the external web browser when clicked.
- Improved Radio Terminal Alarms and Status data for eRLB links  
The usability of the *Radio Link Alarm and Status* page for MINI-LINK TN/CN/LH has been improved by adding a read-only field "Carrier ID Ra1" and "Carrier ID Ra2".
- Integrate updated SP Craft  
A new SP Craft with JAVA 8 support is integrated in MINI-LINK Craft.

## 7.3 Corrected Trouble Reports

- The active Tx is selectable in eRLB else if they are both already turned on  
In the *Control Protection* page for a setup with eRLB with MMU3B and TRXs, the **Active Tx Radio** should be grayed out and forbidden because both transmitters are already turned on at the same time.  
This problem has been resolved for MINI-LINK LH nodes in 19.Q2 release.
- CPU use increase when configure RAU sub-band on MINI-LINK CN 500  
CPU utilization increased a lot when opening the *Configure Radio 1/2.1* page on MINI-LINK CN 500.  
This problem has been resolved in 19.Q2 release.
- Restore/Backup Configuration - IPv6 is not displayed when restoring config file  
In *Restore/Backup Configuration* page, the IPv6 group is not displayed when selecting a restore config file.  
This problem has been resolved for MINI-LINK TN/CN/LH in 19.Q2 release.
- ML Craft should block the save action when Max ACM is <unknown>  
In *Configure Radio Link Terminal* page, the save button shall be disabled when **Max ACM** is <unknown>.  
This problem has been resolved for MINI-LINK TN in 19.Q2 release.
- Sometimes Rx frequency cannot be configured when enable duplex  
In *Configure Radio Link* page with TRX, the presentation of Rx frequency is wrong when the range of Tx and Rx frequency is the same and the checkbox **Enable Duplex** is selected. In these cases the **Enable Duplex** checkbox cannot be used and shall not be visible.  
This problem has been resolved for MINI-LINK LH in 19.Q2 release.



- Date format does not follow the guidelines  
The date format (MM-DD-YYYY HH:mm:ss) shall be used in case of locale **English (United States)** and (YYYY-MM-DD HH:mm:ss) for other locales.  
This problem has been resolved for all supported nodes in 19.Q2 release.
- SDC parameters disappeared in Radio Link Alarms and Status page  
When a MMU3 B is in the AMM without a TRX connected, and in another slot eRLB is configured, adding the SDC configuration lead to losing the SDC parameters in **Radio Link Alarm and Status** page.  
This problem has been resolved for MINI-LINK LH in 19.Q2 release.
- Configure Radio Link Terminal "Copy Near End data to far end"  
When hop is up and running with **Copy Near End to Far End** enabled, updated values in the near end shall be copied to far end after saving.  
This problem has been resolved for MINI-LINK TN in 19.Q2 release.
- CES: Input ECID valid values are 1-1048575, but 0 can be saved successfully  
The value 0 is not allowed for **Input ECID** in **CES-PW Configure** page and should be blocked.  
This problem has been resolved for MINI-LINK TN in 19.Q2 release.
- MINI-LINK Craft login method has a fault when node's SNMP setting is SHA-512 with AES256  
After a failure to login using wrong setting SHA-512 and DES/AES128, the operator can't login with AES256 unless a new MINI-LINK Craft instance is started.  
This problem has been resolved in 19.Q2 release.
- RSTP port enable fault  
On the **Configure Rapid Spanning Tree** page, it is sometimes not possible to enable STP for an interface that is configured on the Ethernet switch.  
This problem has been resolved for MINI-LINK TN/CN/LH in 19.Q2 release.
- View audit log using external SFTP server fails  
On the **Report Handling** page, **View Audit Log** fails when selecting an external SFTP server to view the file. MINI-LINK Craft fails to access the external SFTP server.  
This problem has been resolved in 19.Q2 release.
- Wrong presentation of the IPv6 management address for LLDP  
On the **View Link Layer Discovery Protocol Neighbors** page the management addresses are not the same as the output of the CLI command "show lldp local-info".  
This problem has been resolved for MINI-LINK TN/LH in 19.Q2 release.



## 8 MINI-LINK Craft 19.Q1

The new MINI-LINK Craft release 19.Q1 is based on MINI-LINK Craft 18.Q4. Main changes are:

- Support for new node features.
- Various improvements.
- Trouble reports corrected.

**NOTE:** New features in MINI-LINK 6600 and MINI-LINK 6366 are not supported by MINI-LINK Craft and no trouble reports will be corrected. MINI-LINK 6600 and MINI-LINK 6366 are only supported in hop views with MMU4 A on near end.

### 8.1 New Features

- **MINI-LINK TN 6.1.4**  
These features are listed in
  - Release Notes for MINI-LINK TN 6.1.4 ([MINI-LINK TN 6.1.4](#))
- **MINI-LINK LH 2.1.4**  
These features are listed in
  - Release Notes for MINI-LINK LH 2.1.4 ([MINI-LINK LH 2.1.4](#))

### 8.2 Improvements

- Support for Java 11  
Besides Java 7 and 8, support for also Java 11 is now introduced.
- Enhancement of the MSTP CIST Configuration page  
The usability of the *Configure Multiple Spanning Tree CIST (MST CIST)* page has been improved by adding the columns **Port State** and **Role**.
- Enhancement of the Configure VLAN page  
The usability of the *Configure VLAN* page has been improved by adding the read-only column **Ports/Mapped**: displays the mapped switch ports per S-VLAN or QinQ entries.
- Rx upper/lower edge in Spectrum Diagnostic scan  
On the *Spectrum Diagnostics* page, two GUI parameters in the Scan Information section have been changed, to be better aligned with corresponding cli output.  
Rx Freq. Band Lower Edge (MHz) -> Radio Sub-band, Rx Lower Edge (MHz)  
Rx Freq. Band Upper Edge (MHz) -> Radio Sub-band, Rx Upper Edge (MHz)



## 8.3 Corrected Trouble Reports

- Open Far End MINI-LINK Craft still available on MINI-LINK CN 210 using secure launch  
The hyperlink to "Open Far End MINI-LINK Craft" should be removed in the *Radio Link Alarms and Status* page when MINI-LINK Craft is started with the "-secure" switch (part of "Enhanced ServiceOn EM support", see MINI-LINK Craft 18.Q3).  
This problem has been resolved also for MINI-LINK CN 210 nodes in 19.Q1 release.
- Opening SFTP/FTP Server page using full IPv6 address fails  
If Craft is launched from command line, and IP address is given in full (non-abbreviated) 128-bit format, some features, such as open SFTP/FTP server and generate configuration report, will fail.  
This problem has been resolved in 19.Q1 release.
- E1 interfaces shown as "E1 null" on Traffic routing page  
When reconnecting to another node, and then re-visiting the Traffic Routing page, the E1 interfaces may appear incorrectly as "E1 null" in the interface lists.  
This problem has been resolved in 19.Q1 release.
- SFP vendor OUI shown in wrong format  
On *SFP Alarms and Status* page, section Vendor Information, the parameter **OUI** (Organizational Unique Identifier) is shown as a decimal value, instead of a 3-byte hexadecimal value.  
This problem has been resolved in 19.Q1 release.
- Configure Radio Link Terminal "Copy Near End data to far end"  
"Copy Near End data" is not working properly: Tx frequency (near-end) is not copied to Rx frequency (far-end) when using a RAU not support duplex, such as RAU2 Xu.  
This problem has been resolved in 19.Q1 release.
- Capacity – Modulation shown with incorrect value  
If Adaptive Modulation is applied, the parameter "Tx Capacity – Modulation" on page *RL Alarms and Status* page may in certain cases show incorrect value.  
This problem has been resolved in 19.Q1 release.
- Not possible to change Rx and Tx frequencies at the same time  
When re-configuring a radio link Tx/Rx on both near-end and far-end at the same time (hop is up), all far-end side parameters will not be properly updated. The hop goes down and can only be recovered after connecting a Craft directly to far-end node. Applies to MMU4 A/RAUs with product number UKL xxx





xx/Axx.

This problem has been resolved in 19.Q1 release.

- FTP settings overwritten during bug report  
During the bug reporting process, the configured FTP for some features (Load configuration, Error log, Diagnostics log) may become overwritten.  
This problem has been resolved in 19.Q1 release.

## 9 MINI-LINK Craft 18.Q4

The new MINI-LINK Craft release 18.Q4 is based on MINI-LINK Craft 18.Q3. Main changes are:

- Support for new node features.
- Various improvements.
- Trouble reports corrected.

MINI-LINK Craft was replaced by a web based MINI-LINK Node GUI for MINI-LINK 6600 and MINI-LINK 6366 nodes in the 18.Q3 release.

New features in MINI-LINK 6600 and MINI-LINK 6366 are not supported by MINI-LINK Craft, but features up to 18.Q2 are maintained during 2018.

### 9.1 New Features

- **MINI-LINK TN 6.1.3**  
These features are listed in  
- Release Notes for MINI-LINK TN 6.1.3 ([MINI-LINK TN 6.1.3](#))
- **MINI-LINK LH 2.1.3**  
These features are listed in  
- Release Notes for MINI-LINK LH 2.1.3 ([MINI-LINK LH 2.1.3](#))

### 9.2 Improvements

- Save improvement  
If a "Save" operation has been rejected by the NE, it is now possible to leave the configuration page, without first confirming via popup "Do you want to save changes".
- Traffic Routing configuration response  
Traffic routing configuration has suffered from slow response time and has now been significantly improved.



## 9.3 Corrected Trouble Reports

- SFPo diagnostics Rx Power (dBm) and Tx Power (dBm) displayed incorrectly  
Rx/Tx power = 0 mW were incorrectly mapped to 0 dBm, instead of -infinite.  
This problem has been resolved in 18.Q4 release.
- Degraded response time for Network Sync configuration  
The response time for network sync configuration was degraded after the 18.Q2 release.  
This problem has been resolved in 18.Q4 release.
- Restoring a backup on MINI-LINK CN 510 R1 fails  
Attempt to restore a backup made with earlier Craft release fails on CN 510 R1.  
This problem has been resolved in 18.Q4 release.
- Two transmitters shown for a 1+0 radio link configuration on MINI-LINK CN 510 R2  
On the Radio Link Alarms and Status page for a MINI-LINK CN510 R2, two transmitters are seen even if configuration is 1+0.  
This problem has been resolved in 18.Q4 release.
- Configure Radio Link Terminal "Copy Near End data to far end"  
In a 1+1 RLP or 2+0 RLB configuration, "Copy Near End data" is not working, only data for CT2 is copied correctly.  
This problem has been resolved in 18.Q4 release.

## 10 MINI-LINK Craft 18.Q3

The new MINI-LINK Craft release 18.Q3 is based on MINI-LINK Craft 18.Q2. Main changes are:

- Various improvements.
- Trouble reports corrected.

MINI-LINK Craft is replaced by a web based MINI-LINK Node GUI for MINI-LINK 6600 and MINI-LINK 6366 nodes.

New features in MINI-LINK 6600 and MINI-LINK 6366 are not supported by MINI-LINK Craft but features up to 18.Q2 are maintained during 2018.

### 10.1 New Features

N/A.



## 10.2 Improvements

- Enhanced ENM support  
Following additional support for ENM has been introduced:
  - Improved password passing with *stdin*.
  - Pre/post script execution.
- Enhanced ServiceOn EM support  
When MINI-LINK Craft is started with the "-secure" switch, it shall not be possible to change the IP address or username at reconnect or logon after session timeout. The hyper link to "Open Far End MINI-LINK Craft" is also removed.
- RAU IF and SWITCH Performance pages for SDH  
MINI-LINK Craft showed RAU IF and SWITCH Performance pages for SDH modems, but these are not supported by the node and are now removed.  
SDH modems: MMU2 E, MMU2 F and MMU3 B in SDH mode.  
Improvement implemented for MINI-LINK TN/LH.
- RF Power Performance pages for MMU3 B in SDH mode in 1+1  
MINI-LINK Craft showed RF Power Performance pages for MMU3 B in SDH mode in 1+1. This is not supported by nodes and related pages are removed.  
Improvement implemented for MINI-LINK TN/LH.
- Restore configuration  
When restoring a configuration, additional information has been provided on the Restore/Backup Configuration page, in the hardware Inventory table:  
a new column has been added, indicating whether there is a match or mismatch between the units in the configuration data and the actual node.  
Improvement implemented for MINI-LINK TN/LH/CN.
- Re-configuration of CT  
When re-configuring any CT (CT tabs on the Configure Radio Link Terminal page), the default CT tab was always opened after the "save" action. This has been improved so that the page stays on the re-configured CT.  
Improvement implemented for MINI-LINK TN/LH/6600/6366.
- LAG in Ethernet Ring Protection  
It is now possible to select LAG interfaces as East/West ports on the *Configure Ethernet Ring protection* page.  
Improvement implemented for MINI-LINK TN/LH/CN/6600/6366.
- PTP Sync Standard  
PTP (Precision Time Protocol) sync is referred to as "IEEE 1588 PTP Sync". This has been changed to a more generic reference, "Precision Time Protocol", as all



telecom standards are not IEEE based.

Improvement implemented for MINI-LINK TN/LH/CN/6600/6366.

- Node GUI for ML6600/6366 nodes  
When connecting MINI-LINK Craft to a ML6600/6366 node, a popup is shown informing the user that the MINI-LINK Node GUI can be used instead: as the MINI-LINK Node GUI is now the recommended tool and not only for trial, the message has been updated.
- Far End XPIC information  
Far End XPIC information has been removed from the *Configure XPIC* page (MMU4 A, MMU 1002) as this information is not supported by node software.

## 10.3 Corrected Trouble Reports

- Negative value on parameter "Duplex Distance"  
When configuring a radio link, "Duplex Distance" is presented as a negative value on one of the hop sides. As "Duplex Distance" is the actual frequency gap between Rx and Tx, it should always be presented as an absolute value. This problem has been resolved in 18.Q3 release.
- Ethernet Performance Monitoring Overview page truncated  
On the Ethernet Performance Monitoring Overview page, all LAN/WAN interfaces should be included. But whenever an interface with actual speed exceeding 4.2 Gbit/s is found (32-bit overflow), scanning of further interfaces is interrupted and the interface table will be incomplete.  
This problem has been resolved in 18.Q3 release.
- IPv6 loopback address  
On the *Configure basic NE* page, it is not possible to delete the IPv6 loopback address by setting NE Host Address to ":", or 0:0:0:0:0:0:0:0.  
This problem has been resolved in 18.Q3 release.
- SFP unit not shown in PNM 1001  
SFP units inserted in the 4<sup>th</sup> sub-slot (right-most) are not shown in the chassis view for MINI-LINK 6654 with PNM 1001. This problem has been resolved in 18.Q3 release.
- Wrong E1's in TDM configuration dropdown list  
MINI-LINK Craft shows the logical radio link E1 1/1/1 1 – E1 1/1/1 8 instead of the mapped physical E1 1/0/11A – E1 1/0/14B in the *Radio Link Terminal Configuration* page for MINI-LINK 6651/1 nodes.  
This problem has been resolved in 18.Q3 release.



- Incorrect speed for CES configured switch port  
When CES has been configured on a (TN/LH node with LTU B 32/1) switch port, the Ethernet Overview page always shows the incorrect speed = 0.00 for the corresponding switch port.  
This problem has been resolved in 18.Q3 release.
- E1 Loops, related tasks inter-exchanged  
On the E1 *Loops* page (MMU4 A, MMU 1002), the related task "Open Radio Link Terminal 1 Loops in new window" opens the radio link loop overview window for CT2. And the related task "Open Radio Link Terminal 2 Loops in new window" opens the radio link loop overview window for CT1.  
This problem has been resolved in 18.Q3 release.
- Far End information = 0 on MINI-LINK 6654 with PNM 1001  
If *Configure Radio Link Terminal* page is opened (before visiting *Radio Link Alarms and Status* page) on a MINI-LINK 6654 with PNM 1001, with Far End connected, some Far End data is presented with value 0 (Duplex Distance, Rx Frequency, Tx Frequency).  
This problem has been resolved in 18.Q3 release.

## 11 MINI-LINK Craft 18.Q2

The new MINI-LINK Craft release 18.Q2 is based on MINI-LINK Craft 18.Q1. Main changes are:

- Support for several new node features.
- Various improvements.
- Trouble reports corrected.

### 11.1 New Features

- **MINI-LINK 6600 1.5**  
These features are listed in  
- Release Notes for MINI-LINK 6600 1.5 ([MINI-LINK 6600 1.5](#))
- **MINI-LINK 6366 1.5**  
These features are listed in  
- Release Notes for MINI-LINK 6366 1.5 ([MINI-LINK 6366 1.5](#))
- **MINI-LINK TN 6.1.2**  
These features are listed in  
- Release Notes for MINI-LINK TN 6.1.2 ([MINI-LINK TN 6.1.2](#))



- **MINI-LINK LH 2.1.2**  
These features are listed in
  - Release Notes for MINI-LINK LH 2.1.2 ([MINI-LINK LH 2.1.2](#))

## 11.2 Improvements

- Performance  
The response time when opening or refreshing below pages has been reduced, and in some cases significantly, depending on actual configuration: the larger the node (amount of equipment), the more evident is the improvement.
  - Radio Link Alarms and Status (Hop view)
  - WAN Alarms and Status
  - RL-IME Alarms and Status

Improvement implemented for MINI-LINK TN/LH/CN/6600/6366, where applicable.
- System Monitoring  
Craft implementation has been made more generic with regards to the gauge type: besides existing fixed gauge types Current/Minimum/High/Excessive) additional gauge types are supported automatically, with no further MINI-LINK Craft impact.

Improvement implemented for MINI-LINK TN/LH/CN/6600/6366.
- Node GUI replacing MINI-LINK Craft for MINI-LINK 6600/6366  
When MINI-LINK Craft is connected towards a MINI-LINK 6600/6366 node, the user is given the option to open the Node GUI (new GUI tool that will replace MINI-LINK Craft), instead of proceeding with MINI-LINK Craft.

Improvement implemented for MINI-LINK 6600/6366.
- Packet Overview, LAN/WAN Interfaces Overview  
Packet Overview and LAN/WAN Interfaces Overview pages have been enhanced by adding following GUI parameters:
  - Admin Status
  - LAG
  - Role
  - Speed (Mbit/s)

Improvement implemented for MINI-LINK 6600/6366.
- IEEE 1588 PTP Sync configuration  
GUI parameter 'Connected Bridge Port' on the PTP - Configure Clock Ports page



is now configured by means of a filtered drop-down list, leaving only valid options.

Improvement implemented for MINI-LINK TN/LH/CN.

- Hyperlink to Create License Request page

A hyperlink has been added to the license missing warnings presented at the top of the forms. By clicking the link, the user is re-directed to the Create License Request page, where the related license is pre-selected.

Improvement implemented for MINI-LINK TN/LH/CN/6600/6366.

- Sorting the order of the modules at software upgrade

During the software upgrade sequence, the related software modules are seen listed in several tables and pages: they now appear in the same order in the related pages, and starting with the NPU module on top.

Improvement implemented for MINI-LINK TN/LH/CN/6600/6366.

- IGMP/MLD Snooping

Minor improvements have been introduced in various IGMP/MLD Snooping pages.

Configuration page:

- Parameter group "IP Multicast Forwarding Table alarms" renamed to "IP Multicast Forwarding Table Full alarms".

Multicast Group Status page:

- Parameters "Group Address" and "Source Address" now displaying values in the brief IPv6 address form (e.g. ff33::3).

- A selected element remains in focus (selected) after page refresh.

Status & Statistics page:

- A selected element remains in focus (selected) after page refresh.

Improvement implemented for MINI-LINK TN/LH/CN/6600/6366.

- NE identification format

From a new "Preferences" page, it is now possible to configure the NE identification format (shown in the title bar) according to below two alternatives:

- IP address (NE name)
- NE name (IP address)

Improvement implemented for MINI-LINK TN/LH/CN/6600/6366.

- SFP alarm presentation

NPU Alarms and Status, ETU Alarms and Status pages:



In the SFP Status part of mentioned pages, the former hardware error information has been extended to a summary information, including all SFP related alarms.

Improvement implemented for MINI-LINK TN/LH/CN/6600/6366.

- Clear counters on all LAG member interfaces  
Instead of clearing counters individually for each LAN/WAN interface, is it now possible to clear corresponding counters for all LAG member interfaces at the same time. This option has been introduced on the LAG Alarms and Status page.

Improvement implemented for MINI-LINK TN/LH/CN/6600/6366.

- Disable recurring warning pop-ups  
The possibility to mute recurring warning popups has been introduced, by adding a check box "Do not show this warning again". This applies on a user basis. The setting survives disconnect/logout, and can be reset in the Tools menu.

Improvement implemented for MINI-LINK TN/LH/CN/6600/6366.

- Radio Link Loops  
Radio Link Loops page is now supported for the MMU equipment protection modes 1+1 EQP and 2+0 EQP, introduced in the Craft 18.Q1 release.

Improvement implemented for MINI-LINK 6600/6366.

- Many-to-one mapping  
For nodes with ethernet switch set to "provide mode", configuration of many-to-one mapping (customer VLAN IDs to Service VLAN ID) support has been introduced.
- Improvement implemented for MINI-LINK TN/LH/CN/6600/6366.

## 11.3 Corrected Trouble Reports

- Error message when defining NTP server  
When specifying a NTP server in Basic NE page, after 'Save' a null pointer error popup is received.  
This problem has been resolved in 18.Q2 release.
- SNIR/XPI values expressed in different units  
Both dB and dBm are used to express SNIR/XPI values in different pages.  
This has been aligned, only dB is used in 18.Q2 release.





- Historical diagnostic data for SFP units missing  
On SFP Alarms and Status page (Diagnostics part), and SFP Diagnostic History page, several parameters with unit *dBm* are lacking their values. This happens when the corresponding value in *mW* is 0,x.  
This problem has been resolved in 18.Q2 release.
- Configure Radio Link Terminal "Copy Near End data to far end"  
In a 1+1 RLP or 2+0 RLB configuration, "Copy Near End data" is not working, only data for CT2 is copied correctly.  
This problem has been resolved in 18.Q2 release.
- Not possible to select "Single Interface" as line protection in MINI-LINK LH  
In MINI-LINK LH systems using MMU3 B, it is not possible to configure "Single Interface" ("Low Slot" or "High Slot") as line protection: this option is not available, only ELP and EEP are available.  
This problem has been resolved in 18.Q2 release.
- Unable to upload error log to FTP server  
Uploading error log to FTP Server fails when running towards a node not supporting FTP Manager (prior to TN 5.0): as a result, nothing happens and no error log is uploaded to FTP Server.  
This problem has been resolved in 18.Q2 release.
- Speed is not shown in Radio Link Alarms and Status page  
For MMU 1002, speed of second RLT (1/x/2) is not shown in Radio Link Alarms and Status page.  
This problem has been resolved in 18.Q2 release.
- Duplex Distance configuration  
When configuring a RLT with two CT's (and duplex enabled), *Rx frequency* should be adjusted automatically according to changes in *Duplex Distance*. This is not working for the second CT (neither on near end or far end side).  
This problem has been resolved in 18.Q2 release.
- CLI console stuck  
Occasionally, the CLI console gets stuck when opened from MINI-LINK Craft, and the node is no longer available via the telnet port.  
This problem has been resolved in 18.Q2 release.

## 12 MINI-LINK Craft 18.Q1

The new MINI-LINK Craft release 18.Q1 is based on MINI-LINK Craft 17.Q4. Main changes are:

- Support for several new node features.



- Various improvements.
- Trouble reports corrected.

## 12.1 New Features

- **MINI-LINK 6600 1.4**  
These features are listed in  
- Release Notes for MINI-LINK 6600 1.4 ([MINI-LINK 6600 1.4](#))
- **MINI-LINK 6366 1.4**  
These features are listed in  
- Release Notes for MINI-LINK 6366 1.4 ([MINI-LINK 6366 1.4](#))
- **MINI-LINK TN 5.4FP.5**  
These features are listed in  
- Release Notes for MINI-LINK TN 5.4FP.5 [MINI-LINK TN 5.4FP.5](#)
- **MINI-LINK TN 6.1.1**  
These features are listed in  
- Release Notes for MINI-LINK TN 6.1.1 [MINI-LINK 6.1.1](#)
- **MINI-LINK CN 2.4FP.5**  
These features are listed in  
- Release Notes for MINI-LINK CN 2.4FP.5 [MINI-LINK CN 2.4FP.5](#)
- **MINI-LINK LH 2.1.1**  
These features are listed in  
- Release Notes for MINI-LINK LH 2.1.1 [MINI-LINK LH 2.1.1](#)
- **MINI-LINK LH 1.6FP.5**  
These features are listed in  
- Release Notes for MINI-LINK LH 1.6FP.5 [MINI-LINK LH 1.6FP.5](#)

## 12.2 Improvements

- MMU Alarms and Status  
On the MMU Alarms and Status page, a **RLT status** summary alarm section has been added.  
Also, the related tasks “Alarms and Status Radio Link Terminal” have been removed and replaced by corresponding hyphen links on the listed RLT’s.  
  
Improvement implemented for MINI-LINK 6600 and modems/nodes supporting the new radio link model (e.g. MMU4 A, MMU 1002, MINI-LINK 6651 etc.)



- Radio Link Alarms and Status

Several improvements have been introduced on the “hop view” page, main change being the addition of **CT group(s)**, including selected parameters.

Improvement implemented for MINI-LINK 6600 and modems/nodes supporting the new radio link model (e.g. MMU4 A, MMU 1002, MINI-LINK 6651 etc.)

- Chassis view performance

The response time when opening or refreshing a chassis view has been reduced, and in some cases significantly, depending on actual configuration: the larger the node (amount of equipment), the more evident is the improvement.

Improvement implemented for MINI-LINK TN/LH/CN/6600.

- View Audit Log using an external FTP

An option to use an external FTP server (instead of the temporary internal FTP server) when viewing audit logs has been added.

Improvement implemented for MINI-LINK TN/LH/CN/6600.

- QoS Menu and Shortcut Improvements

Several QoS configuration menu texts have been improved, to clarify whether the configuration is applied on Ethernet switch / interface / port level.

Also a new menu option added:

- Ethernet / LAN Interfaces / LAN <rsp> / Configure / **Port QoS**

Improvement implemented for MINI-LINK TN/LH/CN/6600.

- Number presentation modifications

Readability of tables of numerals has been improved:

- number columns right margin alignment

- for large numbers, space added between each thousand group.

Improvement implemented for MINI-LINK TN/LH/CN/6600.

- Dropdown selection list handling

The need of an extra click after selection completed in a dropdown list has been removed: it is now possible to click “Save” directly after drop-down selection.

Improvement implemented for MINI-LINK TN/LH/CN/6600.

- RSTP configuration page extended

The columns **Port State** and **Role** have been added to the Configure RSTP page.

Improvement implemented for MINI-LINK TN/LH/CN/6600.



- Change of MSE to SNIR  
The term MSE (Mean Square Error) has been replaced with the more correct term **SNIR** (Signal to Noise and Interference Ratio) in all occurrences and pages.

Improvement implemented for MINI-LINK TN/LH/CN/6600.

- New USBLAN driver version  
The Belcarra USBLAN driver version (installed during Craft installation) has been upgraded to 2.4.11.

Improvement implemented for all supported Windows versions.

## 12.3 Corrected Trouble Reports

- Uploading Error Log  
Uploading Error Log to remote FTP server is not working in Craft 17.Q4.  
This problem has been resolved in 18.Q1 release.
- Slow response when saving Radio Link Configuration  
In certain cases when saving a new radio link configuration, updating of Far End side is attempted even if not needed. If connectivity is missing it will leave Craft waiting for a response that cannot be received. The situation was however resolved by an automatic timeout, but appeared as slow response in Craft. The implementation has been improved by minimizing the scenarios that can lead to this timeout, and updating of Far End side is only performed when needed in 18.Q1 release.
- Pasting IP address into "IP/Host" field  
When opening a new Craft instance, and pasting a copied IP address into the "IP/Host" field in the Craft login window, an extra space character was appended, and the login operation failed:  
*"Invalid input in following fields: IP/Hostname."*  
This fault is present in the 17A and 17. Q4 releases.  
This problem has been resolved in 18.Q1 release.
- Negative value on parameter "Duplex Distance"  
When configuring a radio link, "Duplex Distance" is presented as a negative value on one of the hop sides. As "Duplex Distance" is the actual frequency gap between Rx and Tx, it should always be presented as an absolute value. This problem has been resolved in 18.Q1 release.
- Limitations in "Reference spectrum efficiency class" configuration  
When configuring "Reference spectrum efficiency class" (RSEC) in MINI-LINK TN nodes, and Channel Spacing (CS) 40 Mhz, all valid RSEC values are not



shown in the drop-down list: only visible option is 5B. Instead, also RSEC 6B should be included as valid value.

This fault is present in MINI-LINK Craft versions 17A-17.Q4.

This problem has been resolved in 18.Q1 release.

- Craft process icon removed incorrectly from windows task bar  
At inactivity timeout, the Craft window is closed and a popup window prompting the user to log in again is displayed. The Craft icon is also removed from the windows taskbar - even if the process is still running.  
This fault is present in MINI-LINK Craft version 17.Q4 only.  
This problem has been resolved in 18.Q1 release.
- Ethernet Bandwidth Notification configuration error  
Configuration of Ethernet Bandwidth Notification is now fully supported for MINI-LINK TN/LH nodes and does not generate error message in some cases.  
This problem has been resolved in 18.Q1 release.
- Frame ID, Min ACM, Max ACM becomes <Unknown> at XPIC configuration  
When configuring XPIC in a node supporting simplified radio link configuration (see Release Notes for MINI-LINK Craft 17.Q4), the parameters *Frame ID*, *Min ACM* and *Max ACM* becomes <Unknown> after the following MMU restart.  
This problem has been resolved in 18.Q1 release.
- Traffic VLANs missing in Ethernet Ring Protection page  
After adding VLANs, they do not appear in the Ethernet Ring Protection configuration page, in the "Traffic VLANs" drop-down list.  
This problem has been resolved in 18.Q1 release.
- XPIC far end information missing  
When configuring XPIC for MINI-LINK 6600/6366 nodes, far end XPIC member's information is shown as "<Not Selected>". As this information is not available in the nodes for far end, the XPIC member's information has been removed from the XPIC configuration page.
- Capacity-Modulation presentation  
When configuring Capacity-Modulation the drop-down list shows truncated capacity values instead of rounded values, in some cases. For example, the capacity 26.72 Mbit/s is truncated to 26 Mbit/s and not rounded to 27 Mbit/s.  
This problem has been resolved in 18.Q1 release.

## 13 MINI-LINK CLI Tool 1.18, R16A

The new MINI-LINK CLI Tool release 1.18, R16A, is based on MINI-LINK CLI Tool R15A.



## 13.1 New Features and Improvements

-

## 13.2 Corrected Trouble Reports

- Authentication failure using Craft  
The R15A CLI Tool can't login to the TN5.4 node using SSH protocol.

# 14 MINI-LINK CLI Tool 1.17, R15A

The new MINI-LINK CLI Tool release 1.17, R15A, is based on MINI-LINK CLI Tool R14A.

## 14.1 New Features and Improvements

- Updated 3PPs used for the SSH protocol to latest version.

## 14.2 Corrected Trouble Reports

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# 15 MINI-LINK CLI Tool 1.16, R14A

The new MINI-LINK CLI Tool release 1.16, R14A, is based on MINI-LINK CLI Tool R13A.

## 15.1 New Features and Improvements

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## 15.2 Corrected Trouble Reports

- MINI-LINK CLI Tool fails to connect when secure-ssh enabled  
The MINI-LINK CLI Tool can't connect to the MINI-LINK node with the following protocol settings:
  - The Secure-Protocols was enabled.
  - CLI protocol was set to SSHv2.
  - Secure ciphers enabled by CLI command secure-ssh enableThe workaround was to configure the CLI protocol to telnet or not enable secure ciphers.

## 16 MINI-LINK CLI Tool 1.15, R13A

The new MINI-LINK CLI Tool release 1.15, R13A, is based on MINI-LINK CLI Tool R12A.

### 16.1 New Features and Improvements

3PP compliance documentation.

### 16.2 Corrected Trouble Reports

-

## 17 MINI-LINK CLI Tool 1.14, R12A

The new MINI-LINK CLI Tool release 1.14, R12A, is based on MINI-LINK CLI Tool R11A.

### 17.1 New Features and Improvements

Support for Java 11.

### 17.2 Corrected Trouble Reports

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## 18 MINI-LINK CLI Tool 1.13, R11A

The new MINI-LINK CLI Tool release 1.13, R11A, is based on MINI-LINK CLI Tool R10A.

### 18.1 New Features and Improvements

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### 18.2 Corrected Trouble Reports

- Wrong CLI Tool version displayed  
The release number for CLI Tool, as seen in the "About" popup, and during stand-alone installation, showed wrong version <x> in "MINI-LINK CLI Tool 1.<x>".

## 19 MINI-LINK CLI Tool 1.12, R10A

The new MINI-LINK CLI Tool release 1.12, R10A, is based on MINI-LINK CLI Tool R9A.

### 19.1 New Features and Improvements

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### 19.2 Corrected Trouble Reports

- CLI Tool from Craft in "secure" mode  
From a MINI-LINK Craft in "secure" mode, it should not be possible to connect to other nodes via the CLI Tool: the *NE (IP address)* field should be disabled.

## 20 MINI-LINK CLI Tool 1.11, R9A

The new MINI-LINK CLI Tool release 1.11, R9A, is based on MINI-LINK CLI Tool R8A.





## 20.1 New Features and Improvements

- Brand 2.0  
*About* popup window updated to adopt Ericsson's new brand identity, as defined in <https://brandhouse.ericsson.net/en>.

## 20.2 Corrected Trouble Reports

-

# 21 Order and Availability Information

MINI-LINK Craft 21.Q1 is available in Software Gateway. It is the same software for both new installations and upgrades of existing MINI-LINK Craft installations.

The following licenses and value packs enables download of MINI-LINK Craft from Software Gateway:

- Licenses
  - FAL 124 1788 TN/LH Craft
  - FAL 124 1789 CN R2 Craft
  - FAL 124 2544 M-L 6600 Node GUI
  - FAL 124 2893 M-L 6366 Node GUI
- Value Packs
 

- P/FAJ 801 0058/29	O&M Usability-MINI-LINK CN
- P/FAJ 801 0087/29	O&M Usability-MINI-LINK TN
- P/FAJ 801 0192/29	O&M Usability-MINI-LINK LH
- P/FAJ 801 0652/29	O&M Usability - M-L 6600
- P/FAJ 801 0917/29	O&M Usability - ML 6366

Customers can request required licenses or value packs via their Ericsson representatives. From M14B, the Craft (or Node GUI) license for the specific node type shall be installed in the MINI-LINK node.

Other licenses that enable download from Software Gateway are MINI-LINK Service Software license (FAL 104 7765) and MINI-LINK Craft license (FAL 124 1787), but these can no longer be purchased.

Once downloaded, MINI-LINK Craft 21.Q1 can be installed on any number of PC's.

The following MINI-LINK Craft versions have been released during 2018-2021, only the latest is available in Software Gateway:



Release	Prod No	R-state	Released
21.Q1	CXP 902 0013/1	R41A06	March 2021
20.Q3	CXP 902 0013/1	R40A05	August 2020
20.Q1	CXP 902 0013/1	R39A06	March 2020
19.Q4	CXP 902 0013/1	R38A04	November 2019
19.Q3	CXP 902 0013/1	R37A03	September 2019
19.Q2	CXP 902 0013/1	R36A08	June 2019
19.Q1	CXP 902 0013/1	R35A12	March 2019
18.Q4	CXP 902 0013/1	R34A07	November 2018
18.Q3	CXP 902 0013/1	R33A05	September 2018
18.Q2	CXP 902 0013/1	R32A13	July 2018
18.Q1	CXP 902 0013/1	R31A15	March 2018

## 21.1 Export License

The product is OAM de-controlled.

## 22 Compatibility

The table below describes compatibility between MINI-LINK Craft releases and MINI-LINK releases.

MINI-LINK Release	18.Q1	18.Q2	18.Q3	18.Q4	19.Q1	19.Q2	19.Q3	19.Q4	20.Q1	20.Q3	21.Q1
ML 6600 1.1 – 1.4	x	x	x	x	x	x	x	x	x	x	x
ML 6600 1.5		x	x	x	x	x	x	x	x	x	x
ML 6600 1.6 and later			*	*	*	*	*	*	*	*	*
ML 6366 1.3 – 1.4	x	x	x	x	x	x	x	x	x	x	x
ML 6366 1.5		x	x	x	x	x	x	x	x	x	x
ML 6366 1.6 and later			*	*	*	*	*	*	*	*	*



TN 3.2 – 6.1.2	x	x	x	x	x	x	x	x	x	x	x	x
TN 6.1.3				x	x	x	x	x	x	x	x	x
TN 6.1.4					x	x	x	x	x	x	x	x
TN 6.1.5						x	x	x	x	x	x	x
TN 6.1.6								x	x	x	x	x
TN 6.1.7									x	x	x	x
TN 6.1.8										x	x	x
TN 6.1.9												x
CN 500 1.1 – 2.2.1	x	x	x	x	x	x	x	x	x	x	x	x
CN 210 1.0 – 1.2.3	x	x	x	x	x	x	x	x	x	x	x	x
CN 510 1.0 – 2.4 FP.5	x	x	x	x	x	x	x	x	x	x	x	x
PT 2010 1.1 – 1.2	x	x	x	x	x	x	x	x	x	x	x	x
LH 1.0 – 2.1.3	x	x	x	x	x	x	x	x	x	x	x	x
LH 2.1.4					x	x	x	x	x	x	x	x
LH 2.1.5						x	x	x	x	x	x	x
LH 2.1.6								x	x	x	x	x
LH 2.1.7									x	x	x	x
LH 2.1.8										x	x	x
LH 2.1.9												x
SP 110/210/310 1.2 - 14A FP2 EP3, 14A DP4, 1.9.3	x	x	x	x	x	x	x	x	x	x	x	x
SP 110/210/310 14A CP5		x	x	x	x	x	x	x	x	x	x	x

\*) Limited support, see [note](#) in earlier chapter.

## 23 System Requirements

MINI-LINK Craft supports:

- The operating systems; Microsoft Windows 7 (Service Pack 1), Microsoft Windows 8.1 and Windows 10.
- The latest updates of current Java version (7, 8 or 11).

For more information about the MINI-LINK Craft PC requirements see MINI-LINK Craft CPI.



## 24 Known Limitations

Known limitations when using the latest released MINI-LINK Craft version are listed below.

### MINI-LINK Craft

- Uploading of configuration file sometimes generate an EEM window  
Sometimes the "activate" screen is not opened and instead an EEM page telling the user to try using MINI-LINK Craft instead is opened.  
When this occurs, it prevents the user from activating the configuration.  
  
This fault is solved in MINI-LINK Craft 2.18 and MINI-LINK TN 5.0. If the customer upgrades to these or later releases, the problem will not be present.
- Upgrading to a new version of MINI-LINK Craft may cause online help problem.  
After an upgrade to a new version of MINI-LINK Craft, the context sensitive online help might not work properly. To solve the problem the cache in Internet Explorer needs to be cleared.
- Invisible fields on Load Configuration page.  
When MINI-LINK Craft, on a PC with Java 1.7, is used together with a MINI-LINK TN R4 node, some fields on the Load Configuration page are invisible. If the mouse pointer is moved to the invisible field, the field will be visible and can be edited. Another workaround is to install Java 1.8 or later.
- Interaction issues with EEM  
Interaction issues between the web based Embedded Element Manager (EEM), which is integrated in the SBL in the R4 track, and the JavaFX-libraries web viewer that's part of Java 1.7 and later. These results in problems with RMM config restore, but a workaround exists;  
Without the RMM installed in the node, upgrade node software to TN R5 track, where the EEM interface is removed. Then re-insert the RMM and perform the RMM configuration restore.
- Windows Security warning  
The USBLAN driver is installed (or updated) during Craft installation.  
If the USBLAN driver gets installed for the first time (or upgraded), a security warning popup may appear: "Windows can't verify the publisher of this driver software."  
This applies for windows 7, and USBLAN driver version 2.4.11 (MINI-LINK Craft



18.Q1 or later).

This warning can be ignored by selecting option "Install this driver anyway".

- Both USB and LAN-DCN interfaces disabled

If both USB and LAN-DCN interfaces are disabled, the user has no access the traffic node. In this situation, the node will automatically enable the USB interface temporarily: if two consecutive pings (15 minutes interval) towards the configured "Ping Target Host" fails, the USB interface is enabled.

However, if the USB cable was plugged in the moment the USB connection was enabled, occasionally the USB interface does not recover.

Workaround is to un-plug and plug in the USB cable, and wait for the recovery.

- NSIS Installer error popup

During installation of MINI-LINK Craft 18.Q2 or later on a Windows 7 platform, NSIS error messages "Error launching installer" may pop up: installation can be resumed by clicking "OK", with no further side effects.

- IF Alarm indication "undefined"

On the Radio Link Alarms and Status page, the far-end "IF" widgets are always grey (alarm level undefined) if:

- near-end modem is MMU4 A
- far-end modem is ML6651/2

No workaround or recovery measures exist.

## CLI Tool