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November 2018

Remarks about the FW licence and FW update

Starting with FW-Version 00.06.07.00 every FW needs a licence file to enable the functionality of the target system. If the licence file is missing no calls can be made, only remote access is possible. The licence file is transmitted to the target system using the NovaTec configuration software or is already present in the target system if a new system is purchased. The following steps need to be considered when updating a system:

General remarks on FW updates:

In general a new licence is required whenever you update to a non bugfix FW version. A non bugfix version differs in more than just the last two numbers from the previous installed version.

Your release number consists of 8 digits in the following form: XX.XX.XX.YY

A new license is **not** required if only the last two digits of your current FW release differ from the release updated to. Meaning only the Y-variables in the release number change (e.g. update from 00.08.04.00 to 00.08.04.03).

All FW releases with changes to the X-variables require a new license (e.g. update from 00.08.03.00 to 00.08.04.00).



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Remarks about the new licence policy introduced with firmware release 00.08.03.00:

The firmware now checks the number of licenced total and VoIP channels. If the configured number of total or VoIP channels exceeds the corresponding licenced number of channels the system will block all calls and only remote maintenance will be possible.

As in previous firmware versions the MAC address and the installed firmware version need to match the installed licence, otherwise the system will block all calls and only remote maintenance will be possible.

A separate TLS licence file is no longer required. The firmware licence file now includes the licence information for the basic licence and all additional features. Additional features at this time are: TLS and RMCS server. If an additional feature is not allowed by a licence file that feature will be not serviceable. Other features will work without problems as long as the basic licence is valid.

Please note:

- A firmware downgrade of a CCU4 to a version below 00.08.03.00 is not possible once version 00.08.03.00 or higher has been installed on the CCU4. A downgrade within the firmware family 00.08.03.xx or higher is possible.
- The basic factory licence includes 16 channels total on purchase of hardware. If further channels are required these have to be purchased additionally from NovaTec (please contact NovaTec sales in case). Any combination of TDM and VoIP channels can be configured as long as the maximum of the total channel number and the maximum of the licenced VoIP channels are not exceeded.
- The features TLS and RMCS server are not active in the factory licence and must be purchased separately if required.



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NovaTec Release Information Firmware 00.08.04.07

- 1. Bug fixes included in this release**
- 2. New features**
- 3. Other changes**
- 4. Known issues**
- 5. Dependencies**
- 6. System requirements**

1. Bug fixes included in this release

S3 related:

- It was impossible to put BRI interfaces of older S3 models into operation. The Layer 1 never became active. The problem has been solved.

2. New features

None.

3. Other changes

None.

4. Known issues

Related to all systems:

- No calling tone, if a loop is programmed in the alternative route of the callee.

5. Dependencies

A list of dependencies for the different features can be found on our website
<http://www.novatec.de/handbooks/Kompatibilitaetsmatrix.pdf>.

6. System requirements

This firmware supports Cisco Unified Call Manager version 10.5 to 11.x.

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NovaTec Release Information Firmware 00.08.04.06

- 1. Bug fixes included in this release**
- 2. New features**
- 3. Other changes**
- 4. Known issues**
- 5. Dependencies**
- 6. System requirements**

1. Bug fixes included in this release

Related to all systems:

- On high traffic it could happen that a system reset occurs caused by a message buffer shortage. The problem has been solved.

CCU3/BCU related:

- It could happen that the LAN interface became inoperable due to driver problems. This e.g. could lead to the BCU not responding to ping's or interruption of the audio connection. The problem has been solved.

CCU4 related:

- A system using only ISDN or analog interfaces was not re-configurable. The problem has been solved.
- No tones were played on a system only using ISDN or analog interfaces. The problem has been solved.

2. New features

None.

3. Other changes

None.

4. Known issues

Related to all systems:

- No calling tone, if a loop is programmed in the alternative route of the callee.



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5. Dependencies

A list of dependencies for the different features can be found on our website <http://www.novatec.de/handbooks/Kompatibilitaetsmatrix.pdf>.

6. System requirements

This firmware supports Cisco Unified Call Manager version 10.5 to 11.x.

July 2018

NovaTec Kommunikationstechnik GmbH



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NovaTec Release Information Firmware 00.08.04.05

- 1. Bug fixes included in this release**
- 2. New features**
- 3. Other changes**
- 4. Known issues**
- 5. Dependencies**
- 6. System requirements**

1. Bug fixes included in this release

CCU3 related:

- The BCU sometimes had sporadic IP outage. This e.g. could lead to the BCU not responding to ping's or interruption of the audio connection. The problem has been solved.
- The BCU used a wrong MAC address. The problem has been solved.

2. New features

None.

3. Other changes

None.

4. Known issues

Related to all systems:

- No calling tone, if a loop is programmed in the alternative route of the callee.

5. Dependencies

A list of dependencies for the different features can be found on our website
<http://www.novatec.de/handbooks/Kompatibilitaetsmatrix.pdf>.



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6. System requirements

This firmware supports Cisco Unified Call Manager version 10.5 to 11.x.

December 2017

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We change the shape of the world

NovaTec Release Information Firmware 00.08.04.04

- 1. Bug fixes included in this release**
- 2. New features**
- 3. Other changes**
- 4. Known issues**
- 5. Dependencies**
- 6. System requirements**

1. Bug fixes included in this release

CCU3 related:

- No remote support under heavy stress test. The problem has been solved.

CCU4 related:

- It could happen that video conferences lead to a blocking in the CCU4 switching. In such a case the switching was no more operational and calls had no audio connection. The problem has been solved.

2. New features

None.

3. Other changes

None.

4. Known issues

Related to all systems:

- No calling tone, if a loop is programmed in the alternative route of the callee.

5. Dependencies

A list of dependencies for the different features can be found on our website http://www.novatec.de/handbooks/Kompatibilitaetsmatrix_15042016.pdf.



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6. System requirements

This firmware supports Cisco Unified Call Manager version 9.1 to 11.x.

August 2017

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We change the shape of the world

NovaTec Release Information Firmware 00.08.04.03

- 1. Bug fixes included in this release**
- 2. New features**
- 3. Other changes**
- 4. Known issues**
- 5. Dependencies**
- 6. System requirements**

1. Bug fixes included in this release

Related to all systems:

- If an analog subscriber tried to make two subsequent 3-party-calls during one phone call, then the second 3-party-call failed. The problem has been solved.
- A wrong number was sent in the "CSeq" header of an SIP "ACK" message if an outgoing SIP call failed e.g. because the dialled number was unknown. In such a case the NovaTec-Gateway would have received a "404 not found" response. This was then acknowledged with an "ACK" message including the faulty "CSeq" header. The problem has been solved.
- The configuration option for "SIP+" did not have any effect. The NovaTec-Gateway always tried to sent "SIP+" information no matter if the feature was configured "off" or "on". The problem has been solved.
- A small memory leak was fixed which occurred on a per call basis. So far NovaTec did not recognize any system resets caused by this problem. But if a system runs for a very long time with a lot of traffic on it, then there would come some moment at which no more memory would be available and the system would perform a reset to come back to normal operation.

2. New features

None.



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3. Other changes

- If a “no resource available” situation is encountered on establishing an incoming SIP call then that call will now be rejected by sending a “503 Unavailable” response. The “600 busy everywhere” response which was sent by earlier firmware versions could lead to suppression of call re-routing to alternate servers.
- Incoming SIP numbers with E.164 format prefixed with a “+” are now supported. The “+” will be replaced with the configured “International prefix digits” before the internal routing continues.

4. Known issues

CCU3 related:

- No remote support under heavy stress test.

Related to all systems:

- No calling tone, if a loop is programmed in the alternative route of the callee.

5. Dependencies

A list of dependencies for the different features can be found on our website http://www.novatec.de/handbooks/Kompatibilitaetsmatrix_15042016.pdf.

6. System requirements

This firmware supports Cisco Unified Call Manager version 9.1 to 11.x.

March 2017

NovaTec Kommunikationstechnik GmbH



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NovaTec Release Information Firmware 00.08.04.02

- 1. Bug fixes included in this release**
- 2. New features**
- 3. Other changes**
- 4. Known issues**
- 5. Dependencies**
- 6. System requirements**

1. Bug fixes included in this release

Related to all systems:

- Wrong behaviour of the system in case of rapid layer 1 activation of the PRI/ E1 interface by the network after a system cold restart. In this case the interface shortly became active and was then deactivated by the NovaTec gateway. The problem has been solved.
- Display of IP addresses instead of the calling number from the SIP counterpart in ISDN \leftrightarrow SIP calls to the ISDN phone. The problem has been solved.

2. New features

None.

3. Other changes

None.

4. Known issues

CCU3 related:

- No remote support under heavy stress test.

Related to all systems:

- No calling tone, if a loop is programmed in the alternative route of the callee.

5. Dependencies

A list of dependencies for the different features can be found on our website http://www.novatec.de/handbooks/Kompatibilitaetsmatrix_15042016.pdf.



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6. System requirements

This firmware supports Cisco Unified Call Manager version 9.1 to 11.x.

October 2016

NovaTec Kommunikationstechnik GmbH



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NovaTec Release Information Firmware 00.08.04.01

- 1. Bug fixes included in this release**
- 2. New features**
- 3. Other changes**
- 4. Known issues**
- 5. Dependencies**
- 6. System requirements**

1. Bug fixes included in this release

CCU4 related:

- On a call from SIP to an ISDN trunk the ring back tone was not switched-through to the calling side. The problem has been solved.

CCU3 related:

- It often happened after a system start that BCU boards were not ping-able. The problem has been solved. The problem existed since release version 00.08.04.00.

S3 related:

- The S3 line does not work with the feature "RMCS & Gateway". Therefore with release 00.08.04.00 it was not possible to establish a RMCS connection successfully if the S3 was configured in line mode. The problem has been solved by allowing the "old" configuration option "Is a RMCS system". This problem is related to the S3 but the RMCS server needs to be updated to solve this problem.



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2. New features

None.

3. Other changes

None.

4. Known issues

CCU3 related:

- No remote support under heavy stress test.

Related to all systems:

- No calling tone, if a loop is programmed in the alternative route of the Callee.

5. Dependencies

A list of dependencies for the different features can be found on our website
http://www.novatec.de/handbooks/Kompatibilitaetsmatrix_15042016.pdf.

6. System requirements

This firmware supports Cisco Unified Call Manager version 9.1 to 11.x.

July 2016

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NovaTec Release Information Firmware 00.08.04.00

- 1. Bug fixes included in this release**
- 2. New features**
- 3. Other changes**
- 4. Known issues**
- 5. Dependencies**
- 6. System requirements**

1. Bug fixes included in this release

CCU3 and S3 related:

- Call-Home connections often failed using TLS with SHA-256 due to the lower CPU speed of the S3/CCU3. The problem has been solved. A call home TLS connection now has got 20 seconds to be established.

Related to all systems:

- SIP SDP offers including multiple SRTP encryption methods were not handled correctly. The system always chose the last option even it supported better ones. The problem has been solved.
- The hardware status display in the Trace Info Client showed a S04 board on a CAU as a SU04 board. The problem has been solved.
- It could happen that b-channel 30 of a PRI interface was never selected by an ISDN trunk group. The problem has been solved.
- An MLPP call failed if the called (preempted) party was an analogue subscriber. The problem has been solved.



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2. New features

- Running systems populated with an analogues card on a CAU1/CAU2 did not support hot plug feature. This feature has been created now.
- TLS1.2 with SHA256 is being supported now. For now, TLS1.2 can only be used for the maintenance connection but not for SIP signalling.
- Longer SRTP keys (AES with 256 bit key length) is being supported now.
- A system setup as an RMCS server can also route normal calls (the combination of Gateway, RMCS Server and SBC is possible now). This feature requires an extra licence. This feature is not available for S3 units running in SIP line mode and is only applicable for S3 in SIP trunk mode.
- NLP (NovaTec Link Protocol for transparent transfer of D and B Channel information via IP) on UP0 interfaces on the S3 is now supported. This feature requires NMP 7.4.
- A new filter of VoIP codec on all CCUx boards ($x \geq 4$) restricts a codec change after per SIP/SDP signalling negotiated one. This feature prevents SRTP DOS attacks for connections which try to use a different codec than negotiated. This feature is set as a default configuration in the factory and can be switched off in the configuration file by user.

3. Other changes

- Data calls were disconnected if the RMCS connection was lost and no new RMCS connection could be established. This behaviour has now been changed. The call will be kept to give it a chance to finish successfully before bit errors occur.

4. Known issues

S3 related:

- Any S3 configured in line mode cannot establish calls to the RMCS. The problem will be solved in Release 00.08.04.01.

CCU3 related:

- No remote support under heavy stress test.

Related to all systems:

- No calling tone, if a loop is programmed in the alternative route of the Callee.

5. Dependencies

A list of dependencies for the different features can be found on our website http://www.novatec.de/handbooks/Kompatibilitaetsmatrix_15042016.pdf.



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6. System requirements

This firmware supports Cisco Unified Call Manager version 9.1 to 11.x.

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