

# TECHNICAL NOTICE

## BISS-CA

Ateme DR5000

Upgrade Procedure FW 2.4.7.1

Version 1.0 (August 2020)

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## Document version

Version	Date	Comments / Changes
1.0	August 4, 2020	Initial version

## 1 INTRODUCTION

BISS-CA is a conditional access system based on open cryptographic standards. It uses a combination of symmetric and asymmetric ciphers to protect the transmitted content and entitle or revoke in real-time any receiver in an interoperable manner.

Eurovision Services (ES) will use the new BISS-CA standard for high-profile transmissions starting in late 2020.

This document explains the requisites to upgrade the Ateme DR5000 decoder to be compatible with the new BISS-CA standard. This process requires the download of new firmware and must be performed by an engineer with direct access to the units.

## 2 REQUIREMENTS FOR BISS-CA COMPATIBILITY

To receive BISS-CA encrypted transmissions, you need:

- Firmware version 2.4.7.1 or newer
- A BISS-CA licence: for units sold by Eurovision Services, after registration on [www.eurovision.net](http://www.eurovision.net), the BISS-CA licence and support is offered for a fee.

## 3 FIRMWARE UPGRADE

Please follow the instructions as described in the Application Note document, which can be downloaded from the following page:

<https://www.eurovision.net/insights/technical/biss-ca-migration-files-download>

## 4 DECODER REGISTRATION ON Eurovision.net

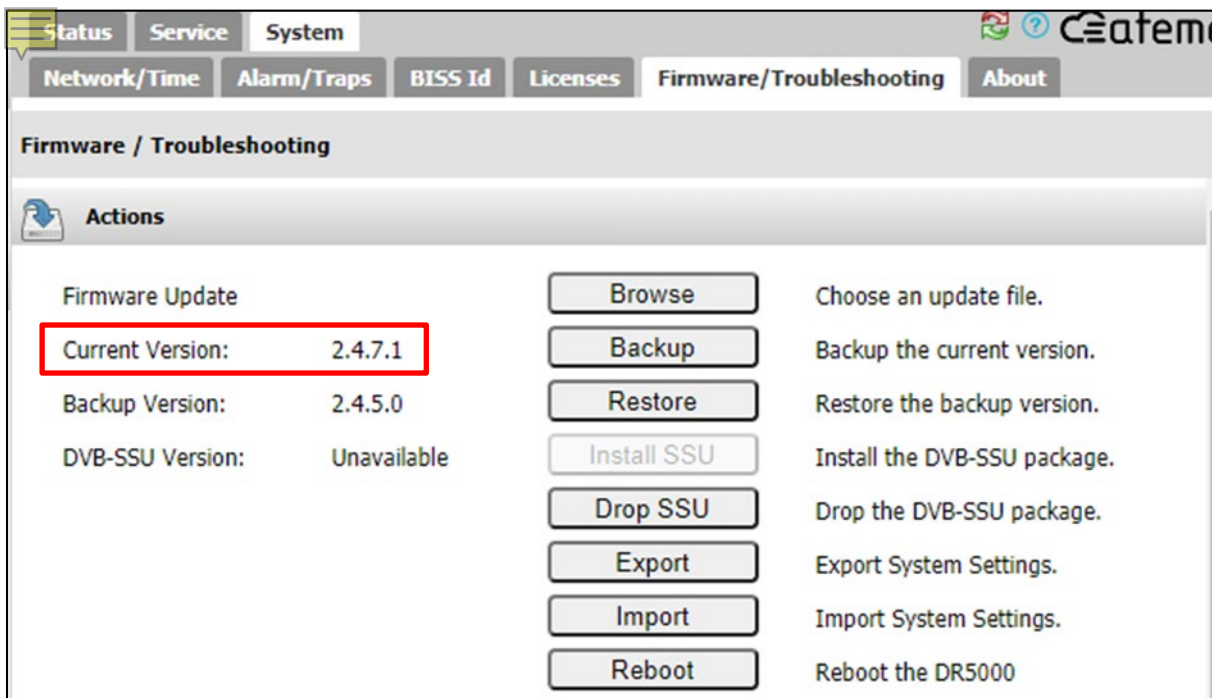
After upgrading the firmware, you need to register the decoders on the ES website (<https://www.eurovision.net/biss-ca-migration>) to be authorised to receive BISS-CA encrypted transmissions.

During the registration process, three screenshots are requested:

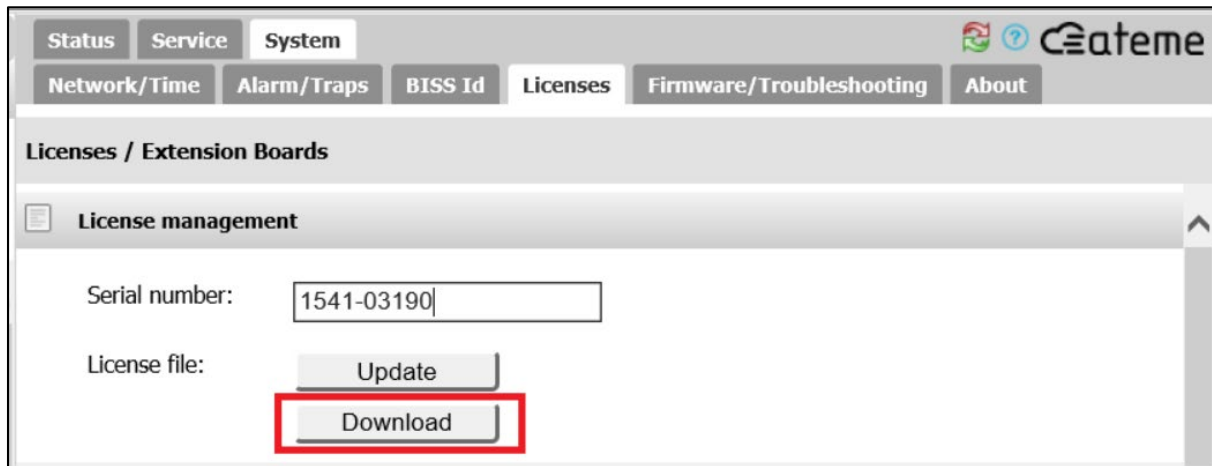
- **Serial Number:** found under *System > Licenses > License management* as shown in the following screenshot



- **Firmware version:** found under *System > Firmware / Troubleshooting*



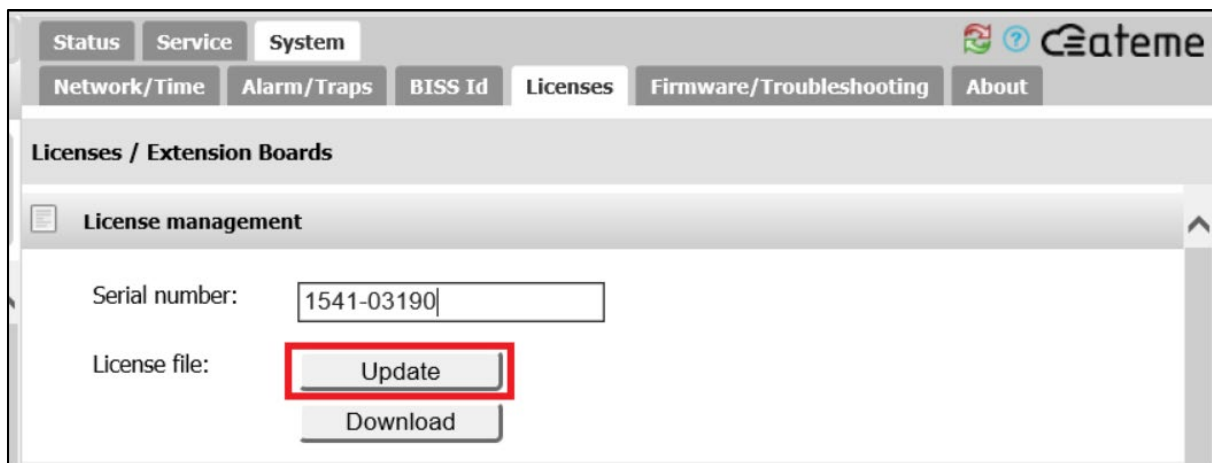
- Licence file: which can be downloaded from section *System > Licenses*, as shown in the following picture.



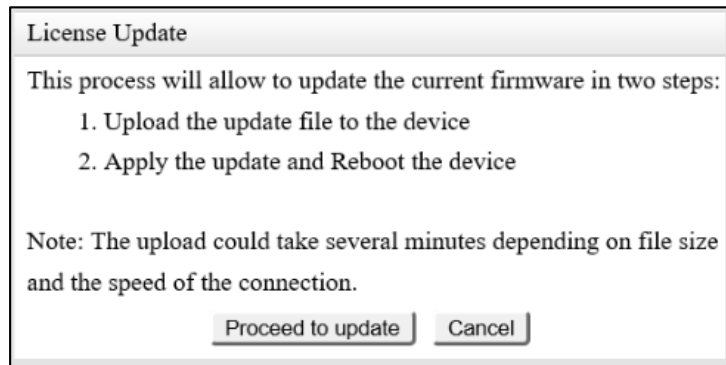
## 5 INSTALLATION OF BISS-CA LICENCE

For units sold by ES, a BISS-CA licence will be provided after registration of the decoder on [www.eurovision.net](http://www.eurovision.net)

- The licence will be sent by e-mail to the contact defined by the broadcaster during the registration. It consists of a licence file that must be uploaded to the decoder under the *System > Licenses* tab, as shown in the following screenshot.



Click on "Update" to start the licence update process.



After the licence has been successfully installed and the decoder has rebooted, a new licence “BISS-CA support” will appear under *System > Licenses*, as shown in the following screenshot.



Description	Value
HD decoding support	yes
1080p decoding support	no
MPEG4/AVC decoding support	yes
MPEG4/AVC 4:2:2 decoding support	yes
MPEG4/AVC 10-bit decoding support	yes
HEVC/H.265 decoding support	no
HEVC/H.265 4:2:2 decoding support	no
HEVC/H.265 10-bit decoding support	no
HEVC/H.265 12-bit decoding support	no
SD downscale support	yes
HD upscale support	no
Number of audio decoded PIDs	8
Number of Dolby Digital decoded PIDs	0
Number of Dolby Digital Plus decoded PIDs	0
16/32 APSK support	no
VPSC (Video Phase Shift Control) support	no
ZIXI input support	no
MPE (Multi Protocol Encapsulation) support	no
VBR input support	no
<b>BISS-CA support</b>	<b>yes</b>
SRT input support	no
Verimatrix watermark support	no
Nagra watermark support	no
Restricted BISS-CA support	no

Note that the licences displayed in this screenshot are just an example. Licences in your own decoders may be different.

## 6 EXTRACTION OF PUBLIC KEY

Once the BISS-CA licence has been applied to the DR5000 decoder, the device's BISS-CA public key file can be downloaded from the tab **System > BISS Id > BISS CA > Factory Key**. This is shown in the screenshot below.

The screenshot displays the Ceateme web interface for BISS CA configuration. The navigation menu includes Status, Service, System, Network/Time, Alarm/Traps, BISS Id, Licenses, Firmware/Troubleshooting, and About. The main content area is titled 'System BISS Key' and contains three sections: 'BISS Injected ID #1', 'BISS Injected ID #2', and 'BISS CA'. The 'BISS CA' section is expanded to show 'Factory Key' and three 'Custom Key' entries. The 'Factory Key' row is highlighted with a red box, showing a 'Download Public Key' button. To the right of the 'Factory Key' row, there is a 'Locked' status indicator (a green circle) and three 'Empty' status indicators (grey circles) corresponding to the custom keys.

This file **must be uploaded to the ES registration portal**, as explained in the “Technical Guidelines for BISS-CA access” document.

## 7 CONTACTS

Please report any technical issues with the upgrade to the BISS-CA upgrade team

[BISS-CA@eurovision.net](mailto:BISS-CA@eurovision.net)