TECHNICAL NOTICE

BISS-CA

Ericsson / MediaKind RX8200
Upgrade Procedure FW 8.25.1

Contents

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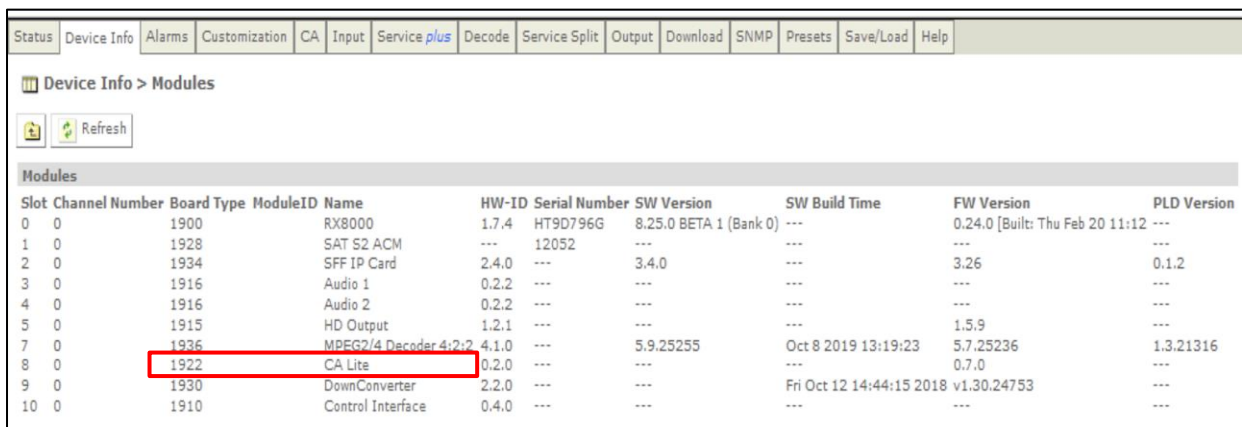
Eurovision Services (ES) will use the new BISS-CA standard in high-profile transmissions.

This document explains the requisites to upgrade the Ericsson / MediaKind RX8200 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 be compatible with BISS-CA, it is mandatory that the device includes the board type **1922 "CA Lite"**.

This can be verified under *Device Info > Modules*, as shown below.

Any device with this board can be updated to be compatible with BISS-CA. The process is performed in two steps:

- **Firmware**: the devices must be upgraded to firmware version 8.25.1. The firmware upgrade can be performed from any previous version. The current firmware version can be checked in the section *Device Info > Modules*, as shown.

Device Info > Modules

⬆ 🔄 Refresh

Modules

Slot	Channel Number	Board Type	ModuleID	Name	HW-ID	Serial Number	SW Version	SW Build Time	FW Version	PLD Version
0	0	1900		RX8000	1.7.4	HT9D796G	8.25.1 (Bank 0)	---	0.24.1 [Built: Tue Mar 31 09:23	---
1	0	1928		SAT S2 ACM	---	12052	---	---	---	---
2	0	1934		SFF IP Card	2.4.0	---	3.5.0	---	3.26	0.1.2
3	0	1916		Audio 1	0.2.2	---	---	---	---	---
4	0	1916		Audio 2	0.2.2	---	---	---	---	---
5	0	1915		HD Output	1.2.1	---	---	---	1.5.9	---
7	0	1936		MPEG2/4 Decoder 4:2:2	4.1.0	---	5.9.25255	Oct 8 2019 13:19:23	5.7.25236	1.3.21316
8	0	1922		CA Lite	0.2.0	---	---	---	0.7.2	---
9	0	1930		DownConverter	2.2.0	---	---	Fri Oct 12 14:44:15 2018	v1.30.24753	---
10	0	1910		Control Interface	0.4.0	---	---	---	---	---

- **BISS-CA license**: a specific license for BISS-CA must be applied. After registration in the ES website www.eurovision.net, units owned by ES will receive a license free of charge, while those sold by ES can be upgraded 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

Once the firmware upgrade is complete, *Device Info > Modules* must show 8.25.1 under slot 0.

4 DECODER REGISTRATION ON Eurovision.net

Decoders must be registered on the ES web site (https://www.eurovision.net/biss-ca-migration) to be authorized to receive BISS-CA encrypted transmissions.

During the registration process, two screenshots are requested:

- **Serial Number and firmware version:** found in *Device Info > Modules* as shown below.

- **Customised Serial Number**: also called "Dallas number," this can be found under section "Customization" as shown below.


5 INSTALLATION OF BISS-CA LICENSE

For units owned or sold by ES, a BISS-CA license will be provided after registration of the decoder in www.eurovision.net

The license will be sent by e-mail to the contact defined by the broadcaster during the registration. It consists of a *custom key* that must be set in the corresponding field under the "Customization" section. Click on "Apply Changes" to apply the license.
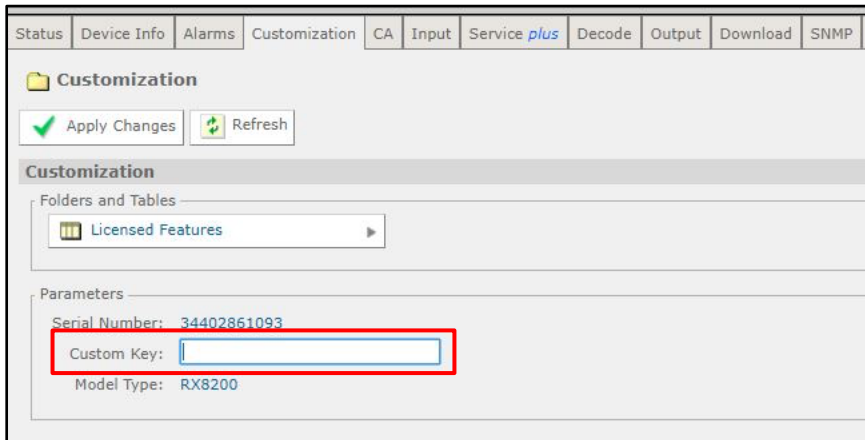
After the license has been applied, the unit must be rebooted and allowed to boot up, as the BISS-CA public key (called "Buried Key" in the interface) will be generated after the reboot. Notice that this period can last from a few minutes to up to 30 minutes. The unit must not be rebooted during this time, or the key generation process will restart. A license applied correctly will be visible under Customization > Licensed Features.
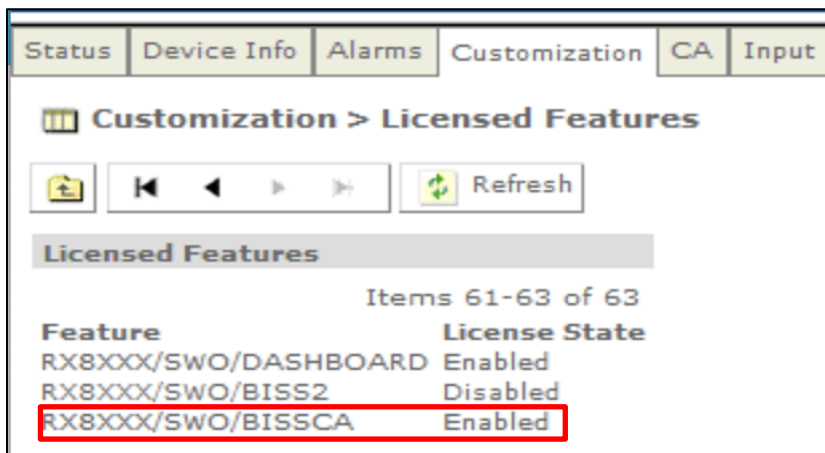
BISS-CA status can be checked under section Advanced View > CA > BISS-CA. The *Buried Key Pair Status* parameter must display a value once the generation process is over.
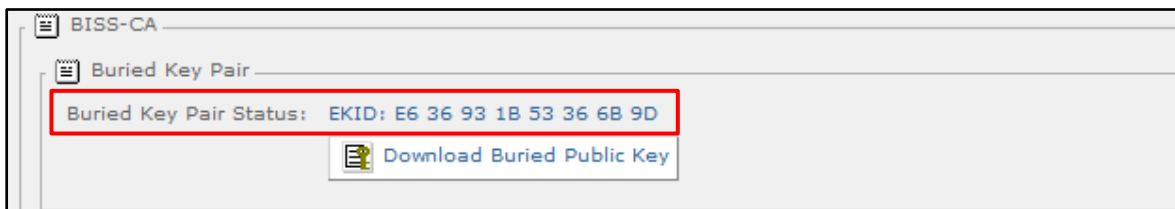
6 EXTRACTION OF PUBLIC KEY

Under section Advanced View > CA > BISS-CA > Buried Key Pair, download the file by

clicking on "Download Buried Public Key". This file must be uploaded to the ES registration portal, as explained in the "Technical Guidelines for BISS-CA access."

7 CONTACTS

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

BISS-CA@eurovision.net