# ORS API definition for HBBTV integration

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# 1  SCOPE

The present document defines the procedure for an HbbTV application to request the CA clientID either from a CI+ CA-Module (CAM) connected to the device over the CI+ v1.3 compatible interface or from a device with embedded CAS.

# 2      DOCUMENT HISTORY

| Date | Version | Change |
|------|---------|--------|
| 03.11.2016 | V1.0 | Initial Draft |
| 21.12.2016 | V1.1 | A Typo has been corrected in chapter 5.1.1: ID to request ClientID has been changed to "80" |
| 17.05.2017 | V1.2 | ID to request ClientID has been changed to "81" |

# 3      ACRONYMS

CAM                    Conditional access module

# 4      REFERENCES

| [1] | Cardless Irdeto CA-System | Irdeto Cloaked CA Agent - Device Integration Overview; recent version |
|-----|---------------------------|----------------------------------------------------------------------|
| [2] | ORS HDTV CARDLESS IRD | HDTV_IRD_GUIDELINES_AUSTRIA_V40.pdf |
| [3] | OIPF - Volume 7 | OIPF - Volume 7: Authentication, Content Protection and Service Protection |
| [4] | OIPF - Volume 5 | OIPF Volume 5 - Declarative Application Environment |

# 5    CLIENTID EXCHANGE

## 5.1    Devices with CI+ interface

The device shall setup a communication channel with the CA-Module (CAM) as specified in OIPF Volume 7 – Authentication, Content Protection and Service Protection [3] – chapter 4.2.3.4.

When the CAM is initialized the CAM request the OITF to open a SAS session with the OIPF private_host_application_ID (0x0108113101190000). If the connection has been successfully established data can be transferred with SAS_async_msg() APDU.

### 5.1.1    Function sendDRMMessage()

In order to request the CA-ClientID from a connected CAM the HbbTV application running on the device shall use sendDRMMessage() function with following parameters:

DVB-T2:
sendDRMMessage("application/vnd.oipf.cspg-hexbinary", 81, "urn:dvb:casystemid:1692")

DVB-S:
sendDRMMessage("application/vnd.oipf.cspg-hexbinary", 81, "urn:dvb:casystemid:1762")

The CAM shall react on the request with ID "81" and provide the ClientID back to the HbbTV application by using the function onDRMMessageResult().
The CAM which supports both DVB-T2 and DVB-S shall support to hold both casystemid.

### 5.1.2    function onDRMMessageResult()

The function shall be used as specified in document OIPF Volume 5 - Declarative Application Environment [4]

The String resultMsg is structured as following:

|  | Lenght | Example |
|---|---|---|
| Tag | 8 bit | 81 |
| Length | 16 bit | 4 |
| ClientID_byte | 8*length | 0x**42E576F7** (1122334455*d)* |

The Tag is the same value as used for the request of the clientID.
The length for the ClientID is 4 byte

As an example a valid resultMsg string would be: 81000442E576F7

## 5.2　　Devices with embedded CA-System

For IRDs with embedded CA-System and which supports HbbTV the device shall provide an interface to read the IRD unique CA client ID via HbbTV application.

The IRD shall therefore use following properties of the LocalSystem class as defined in document OIPF Volume 5 - Declarative Application Environment [5] – chapter 7.3.3.

### 5.2.1　　*readonly* String deviceID

This property shall hold the CA-ClientID in decimal format and the CA-SystemID in hexadecimal format separated by a comma (<clientID>,<CASystemID>)
<clientID>: 11 digit number
<CASystemID>: hexadecimal value

Example: 12345678900,0x069C

### 5.2.2　　*readonly String vendorName*

The property shall hold the vendor name.

### 5.2.3　　*readonly String modelName*

The property shall hold the device model name.

### 5.2.4　　*readonly String softwareVersion*

The property shall hold the version number of the software currently used on the device.

### 5.2.5　　*readonly String hardwareVersion*

The property shall hold the version number of the hardware platform.