Conax CAS7

Conditional Access System (CAS) for Digital Video Broadcasting

Conax CAS7 – the best CAS ever – is built on Conax's powerful security technology platform and extensive experience. The primary criterion when choosing a CAS is finding a stable long-term partner who can guarantee the continuous development of proven, advanced technology and functionality. The system should also have a strong anti-piracy record, be a non-proprietary system, and be based on an open licensing policy for set-top box (STB) manufacturers.

Pioneers

Conax was among the pioneers defining the broadcast security architecture now used all over the world, and in using smart cards as the user security module. Conax has acquired experience in all aspects of CA, included the day-to-day operation of CAS for pay-TV operators.

Open and Interoperable

By sticking to a non-proprietary and open solution, Conax allows the possibility for "freedom of choice" in technology, through:

- A fully open, fair and non-discriminatory licensing policy for STB manufacturers to include support for Conax CAS in the STB
- Digital Video Broadcasting (DVB) and OpenCable™ compliant transmission format
- DVB SimulCrypt compliance on both transmission and receiver (STB) sides
- Detachable security module using an ISO 7816 compatible smart card
- Supply of Common Interface Conditional Access Modules (CAMs) and CableCards™
- Using a standard over-the-air STB loader such as the Euroloader or other non-proprietary STB loaders controlled by the operators

Areas of use

Standard subscription television is the baseline reliable revenue generator for most operators. The lack of efficient ordering channels has limited the potential for introducing value-added services, such as Near Video On Demand (NVOD), Video On Demand (VOD) and other exciting digital television service concepts.

Mobile phone operators have had great success in selling vouchers for pre-paid mobile phone calls. Most digital television consumers have mobile phones,and are familiar with the use of text messages. Conax CAS7 provides options for ordering digital television services via mobile phone text messages combined with simple, secure payment without a cumbersome registration process. Possible payment options are by voucher or credit card, or via invoice.

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Conax CAS7 core components

The Conax CAS7 core components necessary for pay-TV are as follows:

- **SAS server:** manages the generation of authorisations (EMMs) and maintains the status of the entire user smart card population
- **EMM Injector:** receives EMMs from the SAS server, manages the EMM playout queues and feeds the EMMs into the multiplexer
- **ECM Generator:** manages encryption and packaging of entitlements and control words for scrambled services
- **Hardware Security Module:** dedicated security hardware for tamper-proof storage and management of keys
- **User smart card:** performs EMM and ECM decryption and interpretation in order to determine whether the user shall be granted access to the content

Scalability and expandability

Conax CAS7 is organised in a way that allows an operator to start with a basic system for pay-TV, and then add additional components to support more complex operations and business models.

Conax CAS7 can be seamlessly upgraded with additional computer hardware to any level of performance and full redundancy as the business grows.

The system architecture allows for routing and remote control of system equipment on multiple head-ends or uplink sites. A Conax CAS7 installation can support delivery for multiple operators over Satellite, Cable and DTT.

Compatibility

Operators may also wish to distribute content via IP distribution networks such as xDSL and FTTH. Conax CAS7 supports hybrid operations both in the system and in the STB. The product is compliant with open standards such as MPEG2/MPEG4, DVB Simulcrypt and Common Interface, OpenCable™, OpenCAS and DOCSIS.

Conax CAS7 is available with a large number of STBs, multiplexers and middleware platforms, as well as with a number of SMS platforms.

Conax CAS7 Optional Components

One or more optional components can be added for an extended digital television service:

- **Conax CAS7 Mobile Server** for ordering via mobile phone SMS text messages
- **Conax CAS7 Voucher Server** for purchase of access through prepaid solutions, i.e. scratch cards/vouchers
- **Conax CAS7 Push VOD** for purchase and instant access to local pre-stored content, e.g. movies on local STB hard disc
- **Conax CAS7 Event PPV** for prime PPV events
- **Conax CAS7 NVOD** for an ensemble of NVOD channels
- **Conax CAS7 VOD** for Video On Demand
- **Conax CAS7 Tokens PPV** for PPV tokens mode support
- **Conax CAS7 Messaging** for sending text messages to end-users STBs
- **Conax CAS7 EPG/SI Manager** for playout of EIT and/or SI tables
- **Conax CAS7 Data Playout Manager** for management and playout of any data to STBs
- **Conax CAS7 Pairing** for additional anti-hijacking and anti-piracy measures
- **Conax CAS7 Fingerprinting** for enabling tracing of illegally distributed copies of content
- **Conax CAS7 Conditional Access Module (CAM)** for use with Common Interface compliant STBs
- **Conax CAS7 Cable Card** for use with OpenCable™ compliant STBs
- **Conax CAS7 Operations Tools** for system management and signal monitoring of complex system installations

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