

SECURE CHIPSET SOLUTION

- REDUCE REVENUE LOSSES CAUSED BY PIRACY
- SECURELY OFFER HIGH-VALUE SERVICES FOR NEW REVENUE STREAMS
- PREVENT UNAUTHORIZED DEVICES FROM MIGRATING INTO THE NETWORK
- STOP UNWANTED DEVICE MIGRATION OUT OF THE NETWORK

SECURING CONTENT, SOFTWARE AND CLIENT DEVICES TO PROTECT OPERATORS' BUSINESS MODELS

The Irdeto Secure Chipset solution is a response to the challenges of securing a client device, such as a set-top box (STB) or conditional access module (CAM), against two forms of piracy: control word redistribution and device software tampering. It answers the call from pay-TV operators for stricter access control to devices, as operators offer increasingly higher-value content to subscribers, such as interactive applications, personal video recorder (PVR) and high-quality high definition (HD) services.

Irdeto's secure chipset is based on:

- The availability of advanced security descrambler chips
- A unique personalization of this chip during its production
- A pairing relationship between the security client (e.g. smart card, software-based client) and the chip integrated into the device

These attributes enable the security client to be securely bound to a device, thus giving operators full control.

Deploying and managing this solution is easy: new advanced security devices can be rolled out along side of existing standard security devices on the same network with the same head-end. Even the same smart card can be used to simplify inventory and logistics management.

KEY FEATURES

Increased Protection Against Control Word Redistribution

Control word redistribution (CWR) is likely to be the most dangerous piracy threat that operators face today. Operators' business models are at risk when the control word, the key to descramble content, is "stolen" from the smart card device interface. With the Irdeto Secure Chipset solution, control words travelling between the smart card and descrambler chip in the device are uniquely encrypted, preventing pirates from accessing and distributing them.

Increased Protection Against Device Software Tampering

Enhanced protection of the flash memory prevents attacks on services processed by the device, and the unique pairing between the device and the smart card ensures that targeted downloads can only be received by the intended device.

Unique Device Identity

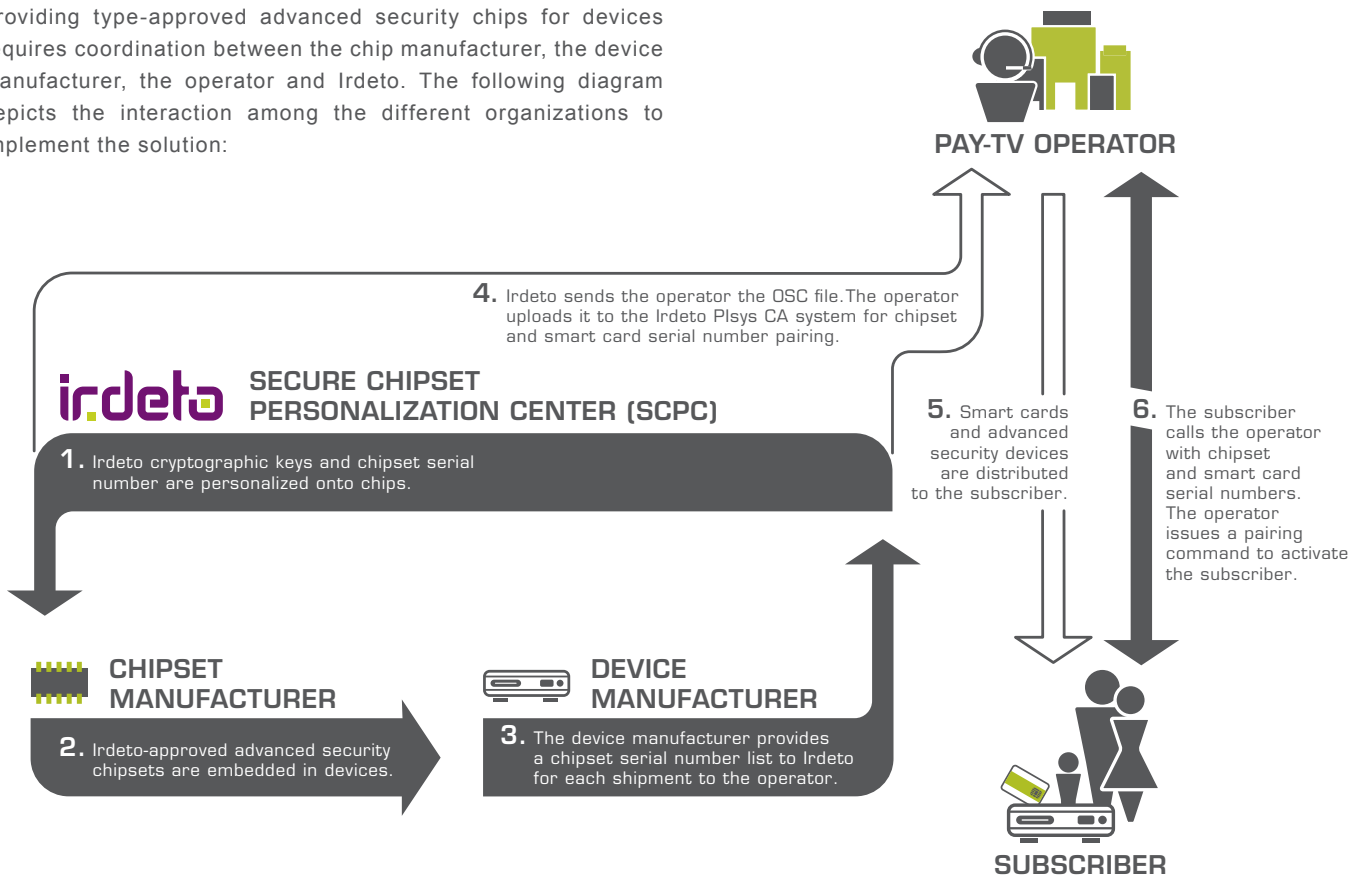
Each advanced security device is uniquely identified, thus enabling operators to stop unwanted device migration both into and out of the network.

Greater Deployment Convenience With Dual Mode Support

The solution enables devices to operate in dual mode, supporting both paired and unpaired smart cards. This flexibility enables the operator to utilize retail devices in networks where the operator is not yet ready to enforce smart card pairing, and even offer a pre-enablement period that allows the consumer to access services without registering for a period of time as an incentive. After this period, the consumer must contact the operator to order continued services, and the operator can then pair the smart card with the device for greater security.

THE SOLUTION

Providing type-approved advanced security chips for devices requires coordination between the chip manufacturer, the device manufacturer, the operator and Irdeto. The following diagram depicts the interaction among the different organizations to implement the solution:



A brief summary of this process is as follows:

- The device manufacturer provides a chipset serial number listing to Irdeto, and optionally the device and chipset serial numbers to the operator.
- The operator uploads the chip data to the Irdeto conditional access system (CAS), by means of a file provided by Irdeto.
- The subscriber calls the operator with his chipset, or optionally device, and smart card serial numbers.
- A pairing command is issued by the operator for this smart card and device combination and the subscriber's account is activated.

SOLUTION COMPONENTS

- Irdeto conditional access system with Irdeto Secure Chipset license
- Irdeto-approved advanced security device with Irdeto Softcell client
- Irdeto smart card or Universal Client

ADVANCED SECURITY CHIPSET PARTNERS

- ST, Broadcom, NEC, Conexant, SMIIT and NEOTION

Contact Irdeto for a complete list.