

CASE STUDY

ESC 90 TELECOMUNICAÇÕES

COMBINING DIGITAL PAY-TV AND INTERNET SERVICES

■ THE CHALLENGE

- Upgrade to digital television services over an existing analog cable infrastructure to provide enhanced pay-TV services
- Implement a cost-effective and secure solution that allows future expansion
- Achieve 20% annual revenue growth over the next three years by increasing networks, subscribers and services

■ THE SOLUTION

Irdeto and its partners helped ESC 90 Telecomunicações implement:

- An integrated solution that delivers live TV and video content to subscribers over its existing cable network
- An open platform on which to securely launch new services, such as Pay per View, Personal Video Recorder and Video on Demand

■ THE BENEFITS

The Irdeto solution enabled ESC 90 Telecomunicações to:

- Safeguard revenues with the best protection against content piracy
- Reduce investments by having abundant, pre-integrated product choices from Irdeto and its partners
- Offer new services and packaging options to meet its growth plans

CASE STUDY - ESC 90 TELECOMUNICAÇÕES

THE CLIENT

ESC 90 Telecomunicações, based in Vitória-Brazil, passes more than 300,000 homes with its existing analog cable infrastructure. A subsidiary of the Electricity Energy Company of Espírito Santo – ESCELSA – the Internet service provider is a NET affiliate with plans to enhance its pay-TV services over its existing network.

THE SCENARIO

ESC 90 Telecomunicações wanted to provide digital television services over its existing infrastructure. The service provider also planned to grow its revenue by 20 % annually over the next three years. The growth plan included passing homes in Vitória, the city where ESC 90 Telecomunicações and its parent company are headquartered; and neighboring Vila Velha.

In June of 2006, Brazil agreed to base its Digital Terrestrial TV system on Japan's ISDB-T modulation system with modifications. The transition to Sistema Brasileiro de Televisão Digital Terrestre (SBTD-T), officially launched in December 2007, is expected to take about ten years, with analog support ending in 2016. The High Definition Television System will be based on an MPEG – 4 / H.264 video codec with an AVC compression standard.

THE STRATEGY

As ESC 90 Telecomunicações outlined plans to grow its profits and pay-TV subscriber base, a top priority was to ensure its revenues are protected from content piracy and theft. This meant a content protection solution that secured access to the licensed content, making it available only to paying subscribers. The Internet service provider wanted a cost-effective solution based on an open platform that provided the best security and encryption technology for the pay-TV services carried over its DVB-C network.

WHY IRDETO?

Irdeto has an outstanding security record in the pay-TV industry. This means that the risk of content theft is minimized and revenues are maximized. Irdeto has customer service teams around the world and local support for ESC 90 Telecomunicações is provided to quickly respond to its needs. Irdeto partners with a large number of set-top box (STB) manufacturers to deliver integrated solutions. This collaboration provided ESC 90 Telecomunicações with an excellent range of set-top box choices, thus drastically reduced its investment in the operation. The Irdeto solution offers flexibility in service packaging and payment models, enabling ESC 90 Telecomunicações to expand its product portfolio based on its business plans. The solution is modular and scalable, allowing the service provider to grow over time.

THE SOLUTION

ESC 90 Telecomunicações decided to use a MPEG 4 HD-16MB set-top box with return path on its existing analog cable network, which has been upgraded to support two-way digital signal transmissions. The Internet service provider is the first digital operation in Latin America to use this equipment, and there are high subscriber demands for this technology in the region.

COMPONENTS OF THE IRDETO SOLUTION INCLUDE:

- *Irdeto Plsys conditional access system (CAS)*
- *Irdeto smart card*
- *Scopus Video Networks head-end (IP)*
- *Coship Electronics STB (MPEG-4/ H.264 HD)*
- *SoftNI Subtitler Suite*

The live-TV channels are encoded (MPEG-4) at the head-end, which contains the live video encoder and video server, and transported as streams over the DVB cable network to Coship STBs that are connected to televisions. The Coship STBs decode the streams for display on subscribers' television sets. The Scopus Video Networks head-end's multiplexers, which are equipped with scrambling cards, interface with the Irdeto CAS via an IP switch. The Irdeto CAS receives messages from the scrambler and then uses encryption technology to send and receive entitlement control messages with the smart cards in the subscribers' STBs.

The Irdeto CAS houses a subscriber database, which includes information on subscribers, their services and serial numbers of their smart cards. A Subscriber Management System communicates with the Irdeto CAS about service changes and maintenance issues.

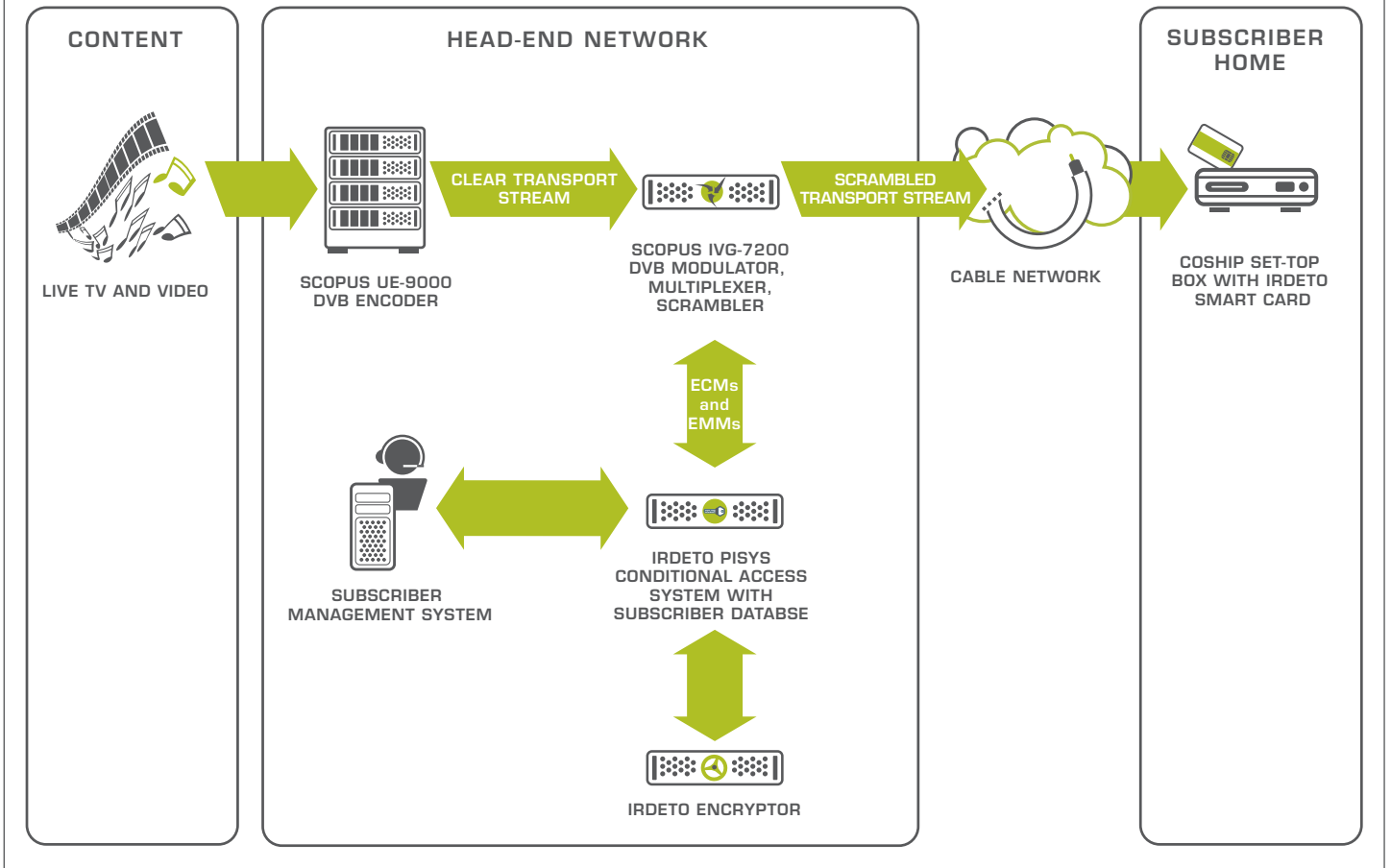
ESC 90 Telecomunicações also needed to upgrade from DCII to DVB to enable its HBO content. As a solution, it selected SoftNI Corporation's Subtitler Suite software to support subtitle preparation and closed captioning.

THE FUTURE

ESC 90 Telecomunicações intends to achieve its revenue growth plan largely by offering new Internet services. The Internet service provider plans to offer a combination of broadband and digital pay-TV services. The flexibility of the Irdeto solution will enable the service provider to implement different packaging and payment models, including Pay per View, Personal Video Recorder, and Video on Demand, among other services. ESC 90 Telecomunicações also plans to invest in e-commerce and new middleware in a few years, and the openness of the Irdeto platform will enable these enhancements. These new services and network upgrades will increase ESC 90 Telecomunicações' revenue and ultimately its profits.

The live-TV channels are encoded at the head-end and transported as streams over the DVB cable network to Coship STBs. The Scopus multiplexers are equipped with scrambling cards, and interface with the Irdeto CAS via an IP switch. The Irdeto CAS receives messages from the scrambler and then uses encryption technology to send and

receive entitlement control messages with the smart cards in the subscribers' STBs. The Irdeto CAS houses a subscriber database, and a Subscriber Management System communicates with the Irdeto CAS about service changes and maintenance issues.



“TO ACHIEVE OUR BUSINESS GOALS, WE SOUGHT A SOLUTION PROVIDER WHO CAN OFFER US THE BEST SECURITY TECHNOLOGY, PROVEN AND COST-EFFECTIVE PRODUCTS AND LOCAL SUPPORT.

IRDETO EASILY MET ALL OF THESE REQUIREMENTS, MAKING IT A CLEAR CHOICE FOR OUR SUCCESS.”

HUGO RAMOS

Chief Technology Officer

