

TELIA STOFA

DVB-OVER-IP SOLUTION

THE CHALLENGE

- Provide subscribers with more choices in program tiers as well as interactivity and flexibility
- Limit additional investment in network infrastructure
- Control access to "live" radio and TV services, as well as non-linear video on demand (VOD), time-shift TV (TSTV), personal video recorder (PVR) and network PVR (NPVR) services

THE SOLUTION

- Irdeto, together with its partners, provided a two-phased solution:
- Phase one: deliver live and stored content via cable and IP networks to hybrid set-top boxes (STBs)
 - Phase two: roll out hybrid STBs with local hard drives to enable live pause and time-shifting services locally while delivering live and VOD services via the network

THE BENEFITS

- The Irdeto solution enabled Telia Stofa to:
- Successfully introduce the new service called Zaptor to the market
 - Achieve good subscriber take rate
 - Meet business objectives without inconvenience, disruption or head-end re-build expenses
 - Offer subscribers converged PC and TV services in the future

THE CLIENT

A member of the TeliaSonera Group, Telia Stofa is Denmark's second largest supplier of Cable TV and Broadband Internet services. Telia Stofa connects approximately 600,000 homes across the country. About 400,000 homes are connected to Telia Stofa's IP backbone and are thus able to subscribe to the digital services as well as the broadband Internet services.

THE SCENARIO

Telia Stofa selected Irdeto as its preferred conditional access provider in 2006, and shortly thereafter launched its DVB-C digital cable service to the Danish market. The offering provides approximately 150 to 200 services to 20,000 subscribers.

THE STRATEGY

Striving to meet its customers' demand for freedom of choice regarding program tiers, interactivity as well as flexibility without an extensive outbuilding of its network infrastructure, Telia Stofa decided to launch a new value-added service called Zaptor to its cable subscribers.

Zaptor provides "live" radio and TV services, as well as video on demand, time-shift TV and PVR services. To contain costs, Telia Stofa wanted to make use of its existing Plsys DVB conditional access system (CAS).

WHY IRDETO?

- An Irdeto Plsys CAS was already successfully providing content protection for the existing cable network.
- Irdeto is easy to work with and proactive.
- 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 showed a strong commitment to thoroughly advise and support Telia Stofa during the CAS planning and integration stages (head-end and set-top box), as well as for the rollout.
- Irdeto's headquarters is conveniently situated in the Netherlands for rapid response to the customer's needs and ongoing collaboration.

THE SOLUTION

Irdeto and its partners provided a two-phased solution:

- Phase one: deliver live and stored content via a combination of cable and IP networks for fast deployment of new services to hybrid STBs.
- Phase two: roll out hybrid STBs with local hard drives to enable time-shifting and live pause locally while delivering live and VOD services from the network.

The details of the phase one deployment are as follows:

For streamed services, live content is fed to a DVB CSA scrambler (Harmonic ProStream) at the central layout, and then conveyed over an IP network to an edgeQAM device at a regional head-end. DVB-C transport streams are then created and injected into the cable network for distribution to subscribers (Samsung, Force and Motorola STBs). The distributed content is protected by an Irdeto Plsys CAS.

End-user requests for stored content services are conveyed to the Telia Stofa middleware system over the IP network, while content is delivered over the DVB cable network. The following services are supported:

- VOD assets are fed to the Irdeto Pre-Encryption Server (PES), where they are Irdeto-encrypted and stored on the Edgware VOD server. The Telia Stofa middleware system manages the VOD end-user request, payment and fulfillment processes. VOD content is then delivered over the Telia Stofa IP network to an edgeQAM device at the nearest regional head-end, from where it is distributed over the cable network to the end-user's Motorola VIP 1920-C hybrid STB. This STB also has an IP input that is used to communicate end-user requests to the Telia Stofa middleware system at the central layout.
- For the TSTV service (24 hour "recall" capability), live content will be converted to IP and scrambled by the Irdeto IPTV Scrambler (DVB CSA algorithm and "trick mode" support). Scrambled TSTV services will then be stored on a server, and at a "resume" command from the end-user, content will be unicast via an edgeQAM device to the end-user's STB.

THE FUTURE

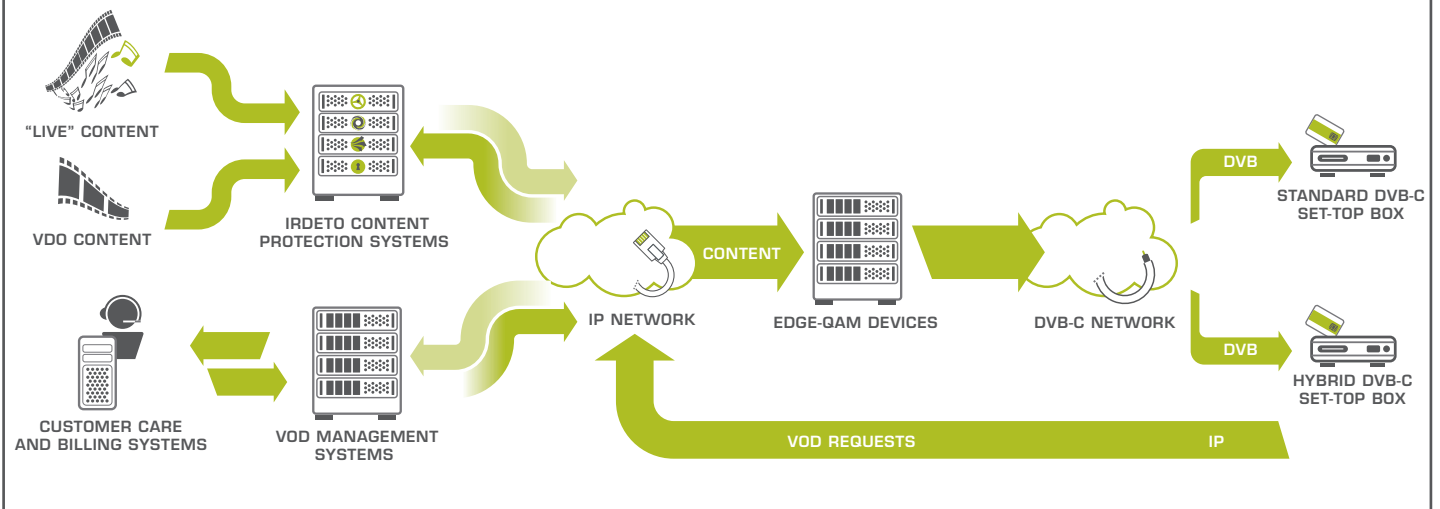
In order to provide improved services and flexibility to its customers, Telia Stofa has further plans to introduce STBs that contain an integrated PVR. The Motorola VIP 1970-C STB will receive "live" and VOD services from the DVB-C network as previously described. Time shifting and storage of recorded programs will then be supported by the STB's local hard drive.

Telia Stofa also plans to offer network PVR (NPVR) services. Scrambled NPVR services will be fed to a server, where content can be stored at the end-user's request. Similarly to TSTV, NPVR content is then unicast to the end-user. All edgeQAM devices are managed by the eventIS edge and session resource management system.

Lastly, Telia Stofa's future vision is to offer its customers converged PC and TV services using an Irdeto-secured environment.

The Telia Stofa network distributes all content via an IP backbone to edgeQAMs. Broadcast and VOD content are currently delivered via the DVB-C network, while VOD requests

are delivered via an IP return channel. Both standard DVB-C and hybrid DVB-C/IP STBs are used.



“The flexibility and scalability of the Irdeto CA system allowed Telia Stofa to add the secure distribution of Zaptor services over our IP network without extensive and costly upgrades. Irdeto has an outstanding security record and continually proves itself as a valuable technology partner.”

KAJ SKOV,
Chief Technology Officer

Stofa's new strapline, "Now you decide!", emphasizes how Zaptor lets customers choose when and how they want to view their favorite programs.

