

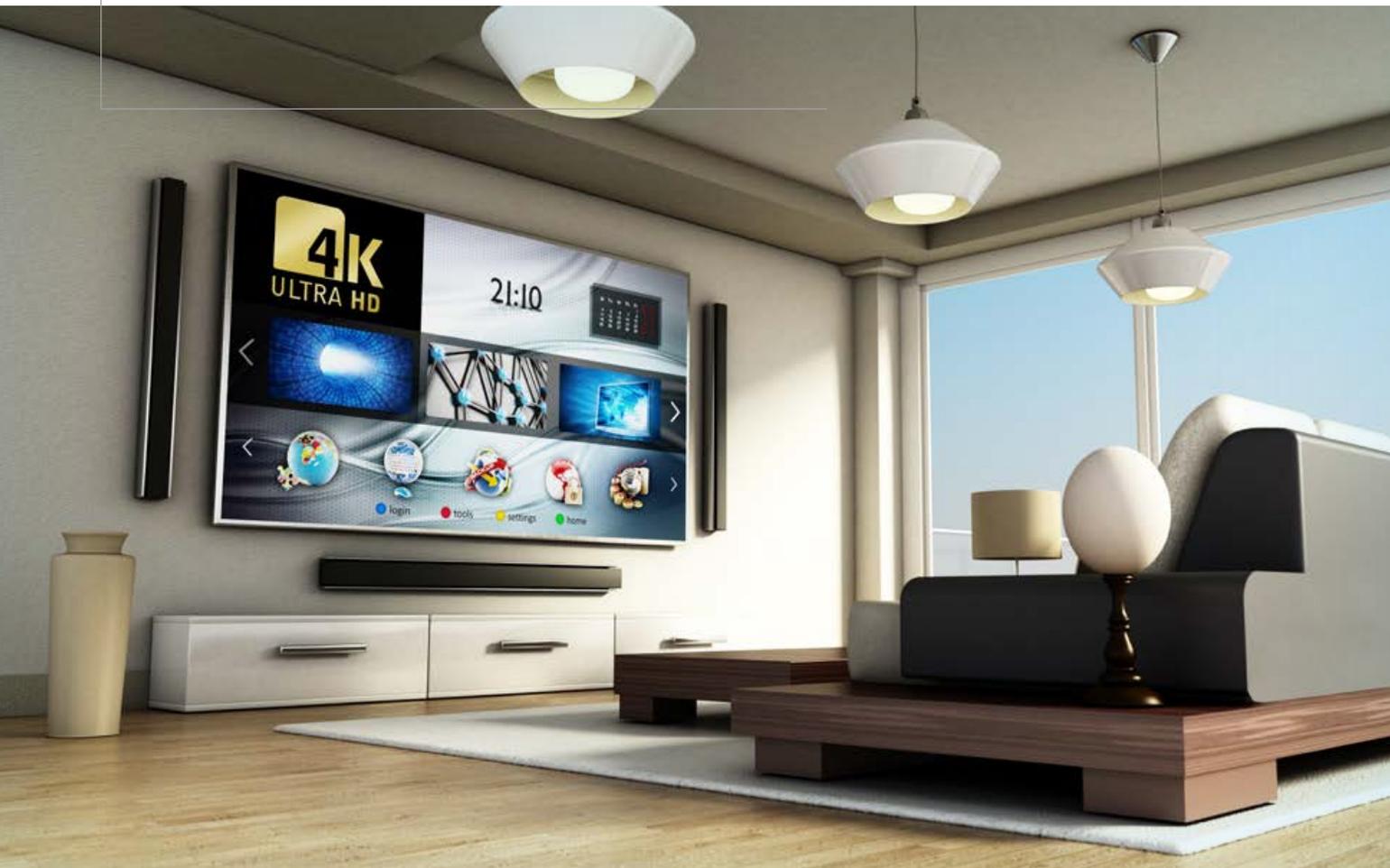
# How two telcos succeeded in Europe with video

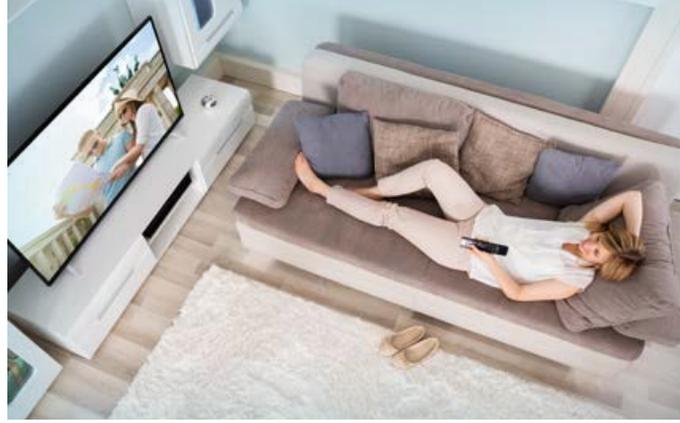


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Business transformation drives company growth for telcos and other companies looking to enter the telecoms space. The key to business transformation is developing and promoting new service applications and creating the right business models to maximize service take up and payback.

By Huang Yue, Li Biao





## Video's transformative power

**O**perators have unique advantages for developing video services. First, a huge amount of broadband users fuels vast potential demand for video and encourages content providers to actively seek collaboration. With profit sharing agreements in place, operators can generate stable revenue streams.

Second, networks play an important role in ensuring KPIs like latency for IP video, the future of high-quality video. As operators own the networks, they're the gatekeepers of guaranteeing video performance.

Third, operators are typically able to provide bundled services that combine TV and broadband data services. Users will always want more for less, in this case better video experiences and content for less money.

Fourth, operators work in the local language and video is a localized product. This gives them an advantage as broadband and content overlaps, meaning operators are better able to satisfy local users' demands.

However, while regional operators understand networks better, they need to improve their understanding of users' content requirements and offer them what they want. Operators also won't be able to develop video services, especially HD and 4K video, with ordinary bandwidth networks. HD video requires at least an 8 Mbps network and 4K a minimum of 30 Mbps bandwidth. In multi-user households, bandwidth requirements are even higher, with 100 Mbps a common requirement. The typical household will therefore require 100 Mbps bandwidth for HD video and 1 Gbps for 4K. To meet these requirements, operators need to modernize their networks to increase bandwidth capabilities. By offering video services, they can recoup their original investment into broadband networks and receive good returns.

“Telekom Srbija and the Norwegian electricity company Lyse are two companies that have accumulated outstanding practical experience in video-driven network transformation.”

Modernizing networks by upgrading and reconstructing existing networks or building new fiber optic networks can accelerate network transformation and help operators develop video services.

Telekom Srbija and the Norwegian electricity company Lyse are two companies that have accumulated outstanding practical experience in video-driven network transformation.

## Telekom Srbija's road to network modernization

Located in the Balkan Peninsula in southeast Europe, Serbia is a landlocked nation of 7.18 million people and 2.5 million households. Telekom Srbija is the country's largest integrated operator, providing mobile, fixed, and video services.

In October 2016, the Serb operator completed its network modernization pilot in Aleksinac, reconstructing its existing network, launching HD IPTV services, and laying the foundation for providing 4K services to the city and surrounding areas. Telekom Srbija's pay-TV service currently has 25 HD channels, more than 250 SD channels, and an increasingly

diverse range of on-demand programs.

The operator expects network modernization to grow fixed-line broadband users in Aleksinac by 30 percent over the next three years, compared with 5 percent before reconstruction. Monthly spend by users on communications will continue to increase due to broadband acceleration and better TV service experience.

**Network modernization:** In 2014, Telekom Srbija upgraded its pay-TV service by deploying Huawei's multimedia service platform. However, the operator's old network was hindering further growth of HD video users and the introduction of 4K services. The limited bandwidth of the copper network had become a bottleneck, stopping rapid development.

Telekom Srbija opted for network transformation to support future service growth, which it started in 2016 as part of an HD video and 4K strategy. The scheme involved modernizing and reconstructing the existing network and expanding high-speed broadband coverage.

The operator's network modernization strategy



had three objectives: One, completion in three years; two, widespread 100 Mbps coverage; and three, deploy a future-ready fiber optic network in high-value areas and lead the pay-TV market.

**Reconstruction:** Huawei provided a zero-risk switchover solution, a product solution for smooth evolution, and business and network consulting services. Huawei's exclusive Turnkey service helped Telekom Srbija achieve network-wide target bandwidth and meet delivery times, enabling the operator to progress to the next stage.

**Copper cable recycling and monetization:** Base stations were moved down and copper wire running from local end equipment, such as MSAN, to central equipment rooms was replaced by fiber optic and recycled.

**User growth:** After network modernization, high bandwidth and excellent HD video service experiences stimulated growth in user numbers – 359 percent for 50 Mbps broadband and 84 percent for 20 Mbps.

**Equipment room closures:** 53 percent of 139 central equipment rooms were viable

for closure, enabling either full surrender of tenancies or substantial reductions in rent, which saved €80,000 in OPEX.

**Faster service TTM:** Huawei's Customer Solution Cloud and complete service tool suite cut TTM by six months.

Having teamed up with Huawei for more than a decade, Telekom Srbija's CEO revealed the next stage of the partnership in October 2016: an All-IP transformation project.

Having already signed a framework agreement with Huawei, All-IP transformation will upgrade and reconstruct the entire network's infrastructure in readiness for UHD video and 4K services. The resulting network and service growth will boost income, lower OPEX, accelerate TTM, and improve user experience.

## Lyse enters new ground

On December 24, 2016, Altibox, a subsidiary of Norwegian energy company Lyse, launched Europe's first 4K UHD TV service on a next-gen video platform and on an all-optical network covering the whole

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of Norway, making UHD videos services available to most of Norwegian families. This transformation marked Lyse’s shift from energy provider to home broadband operator to digital video content operator.

### **Altibox builds an all-optical network**

When deploying a fiber-optic network, operators are faced with high investment, slow progress, and slow ROI. Lyse also had to deal with Norway’s low population density, scattered buildings, and high labor costs – all factors that make it one of the most difficult places to deploy a fiber-optic network.

Rather than rolling out construction nationwide, Lyse ran a pilot in Norway’s third largest city, Stavanger, and the surrounding area. Because it had already supplied electricity to over 200,000 customers in the region for decades, reputation and trust weren’t a problem. Lyse boosted public and government awareness of fiber optic’s importance through an extensive publicity campaign. It also surveyed requirements in residential areas, allowing Lyse to increase

network coverage in a more targeted way, which achieved a sign-up rate of up to 60 percent.

The new operator cut FTTH costs by 30 percent by installing electricity pipelines and poles and having users carrying out lead-in trenching and building entry themselves. After three years, Lyse had connected more than 70,000 households to the fiber optic network, becoming Norway’s biggest broadband supplier and a major promoter of next-gen communications infrastructure.

### **A helping hand**

Coordinating resources and building across regions to achieve fiber optic coverage nationwide is extremely tough for all operators. So, Lyse opted not to go it alone, instead setting up an alliance of 36 local electricity companies from across the nation to build a nationwide fiber optic network. With relatively low investment, Lyse was able to carry out a nationwide marketing campaign, develop a large market, and establish a national broadband brand.

It used standard construction guides and



marketing training to lower the capital and technical thresholds for regional power companies to enter the broadband market.

In the alliance's fourth year, Altibox's fiber optic network covered 60 percent of Norway. It had increased its users from 70,000 to 420,000, representing 22 percent of the broadband market share and double the number of its electricity customers. Altibox had become a significant force in Norway's emerging fiber optic broadband market, serving 73 percent of FTTH users.

## Digital transformation

Altibox provides fiber optic broadband access at 40 Mbps to 1 Gbps over its all-fiber network, as well as fixed telephony, 150-channel IPTV, on-demand video, and household cinema services on its ultra-broadband network. The operator has also developed smart home services, including cloud home security and energy management.

Altibox's CEO remarked that, "We are the

first to bring 4K to home video. As a leader in the field of home entertainment, we're delighted to deliver a cinema-grade viewing experiences to our customers together with Huawei."

Third-party analyst ESPI reports that Altibox has enjoyed the highest customer satisfaction rates for TV and broadband services for seven consecutive years.

ICT currently contributes more than 35 percent of Lyse group's revenue, and more than half of its profits. Lyse has both popularized broadband in Norway and completed the company's transformation journey from energy supplier to all-optical broadband operator and finally to a digital video provider.

With video-driven network transformation set to become a major trend in the next few years, Huawei is committed to helping operators like Telekom Srbija and Lyse transform and create positive business cycles. [www](#)