

CORNING

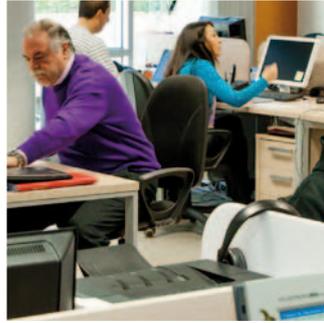
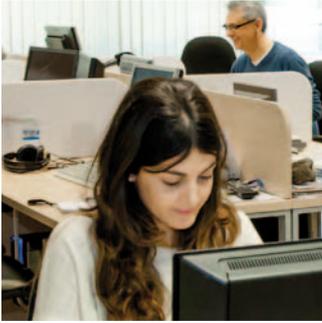


CASE STUDY



Fast, reliable and cost-effective FTTP deployment for advanced services

Alma is a Spanish cable operator providing broadband, communications and interactive entertainment services to residential and business customers in the municipality and the city of Almansa in southeast Spain.



Since the award of its licence 20 years ago, Alma's hybrid fibre coax (HFC) network has been delivering multichannel television and a range of telecommunications services.

The company was one of the first cable operators in Spain to deploy DOCSIS over its HFC network to deliver advanced data and Internet services. With 80 percent market share the company aims to continuously provide customers with the most advanced services. This desire led the company to evaluate how to provision a next-generation network infrastructure in order to stay ahead of its competitors.

Customers were driving technologies and networks in new ways; increasingly using bandwidth-hungry applications, as well as watching multiple TV channels in different rooms within a household. As such, Alma pursued a strategy to increase the capacity and performance of its network infrastructure and enable more advanced user applications in the future.

The network upgrade needed to meet a number of essential objectives:

- Deliver cutting-edge interactive cable television, advanced voice services and superfast broadband Internet access.
- Provide a future-ready infrastructure with seamless upgradability for future applications and technologies as they evolve.
- Provide new services as efficiently as possible with high reliability and minimum disruption to its customers.

Fibre to the Premise (FTTP)

Alma analysed and evaluated a variety of solutions tendered by a number of solution providers. The Corning outside plant (OSP) solution for FTTP tendered by bcSistemas was chosen for the cabling infrastructure as it demonstrated best value with respect to the project requirements.

“Corning’s solution met the desired requirements. It ensures an optimal deployment time together with a robust and reliable network that enables the delivery of increasingly demanding service speeds, at minimum operation and maintenance cost.”

Servando Sanchez, General Manager, Alma

bcSistemas has worked closely with Alma from the outset and, as its preferred integrator, has accompanied the operator in its pioneering deployments of advanced networks.

With the new FTTP solution, Alma was committed to bringing fibre to every home and business to meet greater capacity demands for delivering innovative new applications. At the same time it could be deployed cost-effectively by making use of the existing cable ducts of its HFC network. In addition, deployment using a Gigabit passive optical network (GPON) architecture would provide the scalability for future growth, while avoiding the need for any active electronics in the outside plant.



Advantages of the Corning Outside Plant FTTP Solution

- The flexibility and high reliability of a factory-preconnectorised solution.
- The modular network build, including modular optical splitters, supports a “pay-as-you-grow” financial model.
- The speed of installation accelerates time to revenue and improves customer satisfaction.
- No need for specialist installers, including for the customer drop, provides lower installation costs.

Specifically, the modular, preconnectorised capabilities of the Corning solution provided a faster and easier way to deploy a highly reliable, high-performance network with individual customer connections. The preconnectorisation is employed in the headend (HE), the local convergence point (LCP) and at the customer drop. This enabled Alma to significantly reduce the costs of the network design and deployment as well as speeding up every customer installation.

With the Corning solution, all preassembled components and fibre jointing is carried out in a quality-controlled factory environment and supplied fully tested.

This provides for fast, low-cost and low-skill installation, especially in the customer drop. The modularity of the solution enables easy network configuration, simple addition for increased capacity and easy modifications for future network upgrades.

The use of high-performance Corning splitters enabled the GPON network to achieve a 1:64 point-to-multipoint split from HE to the end user, minimising the amount of optical fibre needed in the access network.

At the Headend (HE) a high-density cabinet (HDC) 3000, begins feeding the optical fibre access network. This robust 19-in system provides preassembled modules and an intuitive cable management facility to terminate fibres as well as housing modular 1:2 passive optical splitters.

At the Local Convergence Point (LCP) OptiTect® LCPs were deployed in new cabinets and fitted with 1:32 splitter modules that can be incrementally added over time as the subscriber base grows. The robust housing of the splitters protect the modules during installation as well as when any additions or maintenance entries are made over time – ensuring maximum uptime and no disruption to services.

At the Network Access Point (NAP) OptiSheath® multipoint terminals are used, each carrying OptiTap® connector adapters which are environmentally sealed to provide durability and reliability for the connection of drop cables. The drop cables are also supplied pre-terminated with OptiTap connectors. This simple “plug and play” approach enables speedy local customer connections and reduced labour costs, providing Alma with increased operational efficiency and significant cost savings.

Outcomes and Benefits

The migration from HFC/DOCSIS to FTTP and GPON started in

2011. There are currently 14,000 optical connections to customers representing a take-up rate of 80 percent for premises passed.

With the new network now in place, Alma provides its customers with more than 180 channels of digital television coverage, including 35 high-definition channels. Digital transmission of all these channels is helping Alma ensure that it provides the best possible level of quality. Customers have access to the best Spanish-language themed channels, all regional channels and mainstream channels from other countries, as well as four in-house production channels that broadcast local and regional information.

Customers also have access to the Internet at standard speeds of 30, 60 or 120 Mbits/s on a range of flat-rate tariffs. In addition the network provides connectivity services to businesses and access to the Internet with reliable bandwidth and is capable of supporting bandwidths of up to 10 Gbits/s for customers who require it.

The new fibre access network and the integration of digital television with IP networking has opened the door to the provision of a range of new interactive and value-added services. The launch of a multi-device TV service is underway, in addition to hosted/cloud-based business services such as virtual switchboard and virtual extension services for mobile devices. This means that customers will be able to obtain audiovisual services in multiple devices, whether smart TVs, smartphones, tablets or voice terminals.

Summary

The key to the success of this network deployment has been the modularity and preconnectorised components of Corning’s OSP FTTP solution. As such, the FTTP rollout was completed in the minimum amount of time, based on a low-skilled network build. This has resulted in lower deployment costs vs. conventional solutions for fibre termination, with the majority of savings derived from the customer connections.

The high capacity and high reliability of the optical fibre network has enabled Alma to rapidly deliver more choice and a better customer experience through a wide range of TV channels and on-demand, personalised video services across multiple user devices.

“The trust we put in Corning and bcSistemas has not been broken and the network we are now completing meets the highest standards of reliability and flexibility.”

Servando Sanchez, General Manager, Alma

Technology has a big impact on the way residents and businesses live and work. Alma now utilises an advanced technology modular cable infrastructure with superior performance to provide more advanced value-added services as technologies evolve — technologies that will create new opportunities for the people and businesses they serve.



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