



PFALZKOM | MANET selects optical technology from Transmode

Result

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Objective

As a fast growing regional carrier PFALZKOM | MANET, based in Ludwigshafen, Germany, needed to adapt the capacity of its optical-fiber network to cope with increasing demand. The capacity of the existing connections was almost completely saturated, while connecting new enterprise customers made it necessary to compress traffic and to expand the network geographically.

Furthermore PFALZKOM | MANET had a problem with the connections between both of its datacenters in Ludwigshafen and Mannheim and the central exchange in Frankfurt because they were not offering enough capacity to meet the forecast increases in data traffic.

"Our existing optical network had reached its maximum capacity", said Jürgen Beyer, Managing Director of PFALZKOM | MANET, who had the responsibility for the network development. "We were reaching the point where we could not fulfill customers' demand for high bit rate transport services any more, because there was simply not enough fiber."

To lay additional fiber throughout the whole network was not an option because of the inherent costs. Therefore the carrier decided to install WDM-Technology (Wavelength Division Multiplexing), with which both the capacity of the existing optical network and the simultaneous transmission of more multiple optical signals could easily be increased.

Case study

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Solution

After testing several potential solutions with products from various different manufacturers, the expansion contract was won by the company ITM, a systems integrator based in Neuss, Germany, which suggested that the solution for both projects should be based on Transmode's WDM platforms. ITM suggested the TS-Series for the HVTs and the TM-series for the carrier class interconnection project.

The C/DWDM platform of Transmode's TS-Series is an optical network platform that can carry and support both CWDM as well as DWDM on a single fiber. This model could also transmit the existing services from PFALZKOM | MANET, which included SDH, Gigabit Ethernet and many other services and protocols. The TM-Series is a family of carrier grade products for optical transport or arbitrary services.

The first part of the new solution was based on improving existing connections between PFALZKOM | MANET's own optical network, which stretches from Ludwigshafen to Saarland, and Deutsche Telekom's primary exchange. Installation of the TS-Series was used for the connection of additional main exchanges for compression as well as spatial expansion. Through the main exchanges PFALZKOM | MANET also had access to the copper network, over which customers could be connected.

With the TM-Series equipment PFALZKOM | MANET has built, in collaboration with ITM, a DWDM ring for redundancy, which connects the two datacenters in Ludwigshafen and Mannheim to the central exchange in Frankfurt. Transmode's transparent 9x GbE Muxponder cards with their 10Gbit/s interfaces make an efficient use of the existing wavelengths.

"We have been delighted with Transmode's systems primarily because of their robustness and their ease of deployment", said Jürgen Beyer. "The solution does not have any unnecessary complexity, is scalable over a wide area and offers a simple web-based management system. Above all, the installed iWDM-Technology ensures that the operating costs are much lower than competing solutions, which in our expanding network is tremendously important."

The iWDM-Technology from Transmode is based on a patented engine which recognizes both the protocol used as well as the bit rate and so can automatically identify the detailed signal of a client. On the basis of this information, new services can be provisioned automatically. By this means, complex and error-prone procedures for installation and start-up can be avoided, so the introduction of new services is accelerated.

Result

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About Transmode

Transmode is a leading provider of optical networking solutions for transport of data, voice and video traffic, based on WDM-technology (Wavelength Division Multiplexing).

Our customer base consists of more than 200 network operators, service providers, large enterprises and public institutions across Europe, the Americas and Asia.

Transmode's comprehensive product portfolio and strong global organization enable our customers to cost efficiently grow the capacity and to improve service level of their regional, metro and metro access networks, without compromising on functionality.

For more information about Transmode, please visit <http://www.transmode.com>