

DWDM and WDM: Market Shares, Strategies, and Forecasts, Worldwide, 2012 to 2018

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Abstracts

WinterGreen Research announces that it has published a new study DWDM and Optical Transport Equipment: Market Shares, Strategy, and Forecasts, Worldwide, 2012 to 2018. The 2012 study has 528 pages, 225 tables and figures. Worldwide DWDM markets are poised to achieve significant growth as the data in networks expands exponentially. As cloud systems proliferate and wireless data takes hold the efficiencies brought by DWDM are needed.

According to Susan Eustis, lead author of the study, 'Everything is going mobile. This evolution is driven by mobile smart phones and tablets that provide universal connectivity. With 6 million cell phones in use and one million smart phones, a lot of people have access to mobile communication. Video, cloud-based services, the internet, and machine-to-machine (M2M) provide mobile connectivity. All these devices are networked and drive significant traffic to the network, stimulating the need for DWDM.'

Mobile changes how consumers behave. Users leverage mobility to communicate. They use it to improve their daily lives. Mobile is growing through existing data services and new services. Users demand connectivity anywhere and anytime. Enterprises are beginning to exploit the opportunities provided by mobility. Mobile communications permit the enterprise improve efficiency by enabling remote services and sales people to work efficiently, by enabling better access to enterprise records from remote sites, by streamlining processes, and by supporting new business models.

New, more affordable smartphones are driving forces for increasing network traffic. The many connected devices on the market create demand for better networks. The total number of mobile subscriptions globally reached 6 billion at year end 2011. 1 billion of

these are for mobile broadband. Machine to machine (M2M) connections are in addition. 30% of all mobile handsets sold during 2011 were smartphones compared to around 20% for 2010.

The strength of the DWDM market is apparent as carriers all over the world move away from legacy SONET/SDH technology and deploy DWDM infrastructures that can support 40G and 100G speeds. As a result, both analyst firms see the DWDM market growing significantly faster than the overall optical hardware market.

Traffic growth is the underlying driver for 40 Gigabit and 100 Gigabit (Gbit) Dense Wave Division Multiplexing (DWDM) network transport. This was the case with the transition from 2.5G to 10G and from 10G to 40G and now 100G optical channel rates. As the number of Internet users expands, bandwidth per user is increasing, putting enormous pressure on core backbone networks and metro networks.

The average mobile PC user generates 2 Gbytes of data per month. A high-traffic smartphone user generates 500 Mbytes per month. Network usage has been increasing, all these devices and 24/7 connectivity mean global mobile data traffic may grow twentyfold by the end of 2018.

Operators are capitalizing on this changing market, enabling users and machines to leverage connectivity. During 2011 various operators started to introduce tiered pricing, to provide price plans, volume, time or speed-based plans. These are better aligned to user needs. Operators are able to create business models to capitalize on different consumer and enterprise segments.

To enable these services, improve user experience, and provide tiered pricing, operators are investing in and transforming their operations and business support systems (OSS and BSS). These systems monitor and optimize network performance for customer relations handling and subscriber support. OSS/BSS investments enable operators to optimize operations and reduce costs.

Worldwide optical transport DWDM equipment market revenues are forecast to grow 10% year-over-year from \$4.3 billion in 2011 to \$9 billion by 2018. This is in the context of a world communications infrastructure that is changing. Technology is enabling interaction, innovation, and sharing of knowledge in new ways.

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