



Modern WiFi arrays make extended bandwidths available to a number of users at the same time.

INNOVATION

# THE CHALLENGE OF WIRELESS LAN

The proliferation of smartphones and tablet PCs also means an increase in the need for systems to access mobile data traffic.

junction with a number of different devices, for making phone calls (voice-over WiFi) and even for television.

In just a few months the new WLAN standards 802.11ac and 802.11ad are set to be adopted. They take into account the requirements for increased bandwidth and higher numbers of users. The arrays offered by Datwyler have been set up to take the new standards into account: Thanks to their modular design, only individual elements need to be replaced. One considerable advantage, of course, is the smaller number of devices that one customer needs to install and manage. This means that the costs for cabling, installation, power supply etc. are significantly lower than is the case with classical WLAN solutions.

Datwyler make the equipment available complete with all the necessary accessories, including protective enclosures for gyms and heated frameworks for external use. The service facilities (optional) comprise site surveys, on-site measuring and – as part of turnkey projects – the installation as well as the training of the responsible staff and maintenance of the equipment.

A current Cisco study into the development of mobile networks is predicting an 18-fold increase in mobile data traffic by 2016. Around Christmas 2011 alone, Andy Rubin, Google's Head of Mobile Applications, reportedly received more than 3.7 million new registrations for Android devices. No wonder then that the requirement for "classic" wireless networks has also been growing steadily for some years.

Datwyler took this development into account at an early stage by expanding its product and service portfolio to incorporate WLAN solutions. One example of a strong and innovative partner here is Xirus. The US American manufacturer's WiFi arrays are based on new technology where a number of access points within a single device

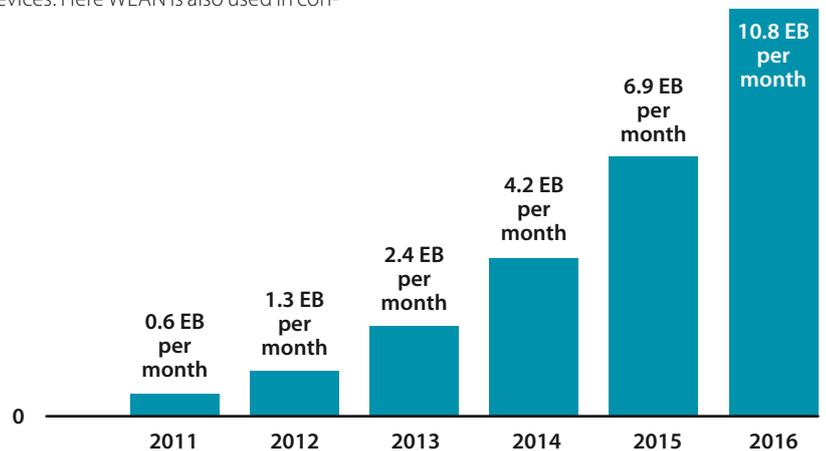
are connected together via one gigabit switch. By comparison to conventional technologies it is possible, in addition to gaining range, to guarantee up to 8 times more bandwidth. Plus the number of users able to work with WLAN at the same time via a single array is significantly higher at a maximum of 1,280.

The organisers of trade fairs and events in particular are faced with the challenge of having to offer extended bandwidths to large numbers of users. Schools and universities offer their own inter- and intra-net portals for e-learning as well as online lectures which can be accessed via tablet PCs and e-book readers. In hospitals more and more doctors are downloading patients' records to mobile devices. Here WLAN is also used in con-

**Andreas Tittel**  
Solution Engineer  
andreas.tittel@datwyler.com



WiFi Array from Xirus.



Cisco Forecast as regards mobile data traffic up to 2016 (in Exabyte).