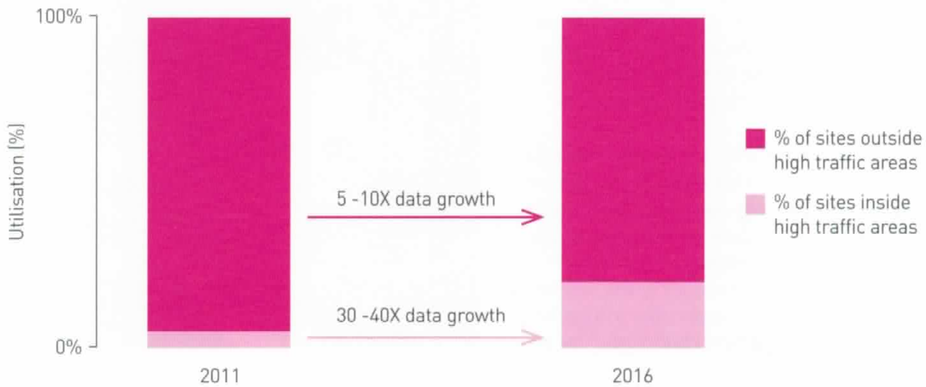
Small cell market forecast report

Small cell market drivers

Dell'Oro Group forecasts mobile data and service provider (SP) Wifi traffic to grow 10-15 fold and 35-40 fold, respectively, in the next five years. The analyst firm anticipates that the increased demand will raise the average utilisation level of all networks, and expects the effects to be more pronounced in dense urban areas.

Based on information from the SP and vendor community, it estimates that less than 7% of all installed base stations are more than 60% utilised, and anticipates that 13% to 20% of all base stations will approach a similar utilisation level in 2016.

RAN capacity utilisation



Source: Dell'Oro Group's Small Cell Market Forecast Report 2012

Capacity limitations with existing tools

Since the first 1G radio access system was commercialised, operators have relied on three strategies to expand network coverage and capacity: improving spectral efficiency, utilising additional spectrum and densifying the network.

However, there is a limit to the upside and overall sustainability of the legacy approach. Deployment of small cells is now widely recognised as an important next step for operators to embrace.

US operators, however, were capable of adapting to extraordinary growth with their macro network. For example, they handled 140% annual data growth rates between 2007 and 2011 using 'legacy' tools. During this time period, US smartphone penetration increased from 10% to 50%.

Dell'Oro Group anticipates that operators around the world who are now entering similar growth phases will initially utilise similar approaches, where possible.

Dell'Oro Group has assumed that by 2016, approximately 80% of the sites worldwide will be able to meet expected demand by using legacy approaches to adapt the macro. However, the numbers do not add up for high-traffic areas, which will require: small cell – RAN; and small cell – service provider Wifi.

Legacy options for meeting capacity demand

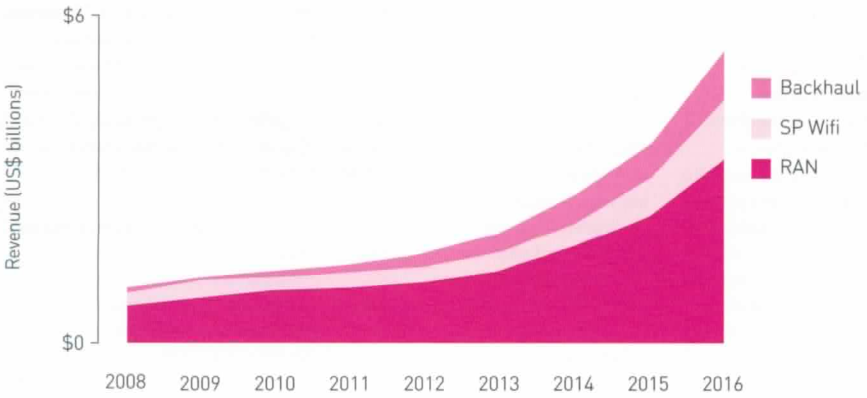
#1 Improve efficiency of existing macro layer

#2 Use more spectrum

#3 Densify the network

Source: Dell'Oro Group's Small Cell Market Forecast Report 2012

Total small cell revenues



Source: Dell'Oro Group's Small Cell Market Forecast Report 2012

Market opportunity in public access small cells

Operators are already deploying small cell SP Wifi units and Dell'Oro Group expects this segment to grow rapidly in the forecast period up to 2016.

SP Wifi represented 87% of all access small cell shipments in 2011, and is expected to account for 72% of all small cell access shipments in 2016. Dell'Oro forecasts that the total small cell market will start benefitting from capacity-driven RAN deployments in the 2014 time period. It also anticipates total small cell revenues to account for 6% to 13% of total macro revenues in 2016.