

## Brite-box switching and the Future of Data Centres

By Neil Patel, Director European Marketing and Business Development

D-Link has been providing advanced networking equipment for more than 30 years, and though is perhaps still best known for designing and engineering devices in the West. As a global company, one significant area of D-Link's business in emerging markets - such as Russia and Brazil - has been providing those countries' ISPs and data centres with high-performance, low-cost, highly reliable switching technology. Effectively, acting as an affordable alternative to other global switching companies.

Ten or fifteen years ago, those countries could not afford to invest in the switching environments we saw emerging in the developed world, so they needed lower-cost and reliable alternatives. More recently, with the massive growth in data centre use, cloud and SaaS have become part of mainstream IT. Large players such as AWS, Microsoft Azure and Google have brought commodity cloud to the market, and there is huge downward pressure on data centre and cloud service costs.

### **The importance of virtualisation**

When people were originally looking to deploy data centres in the past, they needed 99.999% uptime, which is what justified the initial investment in data centre class switches. That is essentially what drove the growth of the likes of today's major players, and others into data centres, because they were deemed to offer better quality switches with features and functions that were flexible enough to address all the I/O requirements and the management requirements that data centre people needed.

That was a good business model for those tier-one players - until the fly in the ointment that was VMware came along, changing everything with virtualisation. What this meant was that much of the need for the complexity that's sitting in the middle of the network disappeared. And in that simplification of the network, the data centre fundamentally changed. They continued to grow, immensely, and they continued to expand, but the necessity for all that complex functionality and capabilities in those switches that were needed originally was no longer required.

In addition to this, software-defined networking (SDN) and network function virtualisation (NFV) emerged to offer the network layer the agility that VMware delivered at the server level, with automation key to driving down operating costs.

At this point, data centre operators began to question the value of continuing to invest in tier-one vendors. Good examples were companies such as Facebook, Twitter and Amazon. These guys, when they first started, were originally going into tier-one vendors and writing sophisticated tools to manage and scale their massive systems. Nowadays they develop their own hardware and software stacks, built to meet the unique demands of their business models. And subsequently, many others followed suit, realising that they didn't need to pay a lot of money for expensive switches.

Up until that point, the bigger vendors – the likes of Cisco, HP and Brocade – were also the first companies to produce software-defined networking switches. Over the last five or eight years, that market has rapidly commoditised. And what you are now getting is data centre customers who are increasingly disinclined to pay a 20 or 30 per cent price premium for tier-one switching. Hence the arrival of the brite-box.

### **Brite box and the importance of trust**

D-Link's brite box value proposition is simple. Data centre customers now have a number of options. They can either buy a full-blown branded solution from Cisco. Or they can go to the other extreme and do what the likes of Facebook and Google do, which is to go to China, find an OEM and do it themselves – the so called white box solution. Or, alternatively, something in between these two options of branded and white box switches, they can choose to buy "branded white box" switches (hence: "br-ite box") from a trusted vendor in the middle such as D-Link.

D-Link is the original brite-box switch company. Customers buy D-Link switches because they trust the name, they trust the brand and they trust the value proposition. D-Link's Brite box proposition offers the reliability and support of a channel-friendly company with the freedom for customers to load the software they need into the switch and customise it to their own needs.

D-Link has applied its learnings from the cutthroat world of consumer technology products to bring significant new competitiveness to the data centre market. We've realised the benefit of offering customers supported and proven hardware expertise from a trusted brand and of giving them the freedom to use their own software.

### **Industry 4.0, IoT and the future of the data centre**

SME data centre customers, the necessity for managed switches will continue to decline. While the necessity for less complex, more intelligent switches with simpler interfaces – for web-managed or smart switches – will rapidly increase.

Take a look at the figures. In 2016 the overall switch market grew by six per cent in terms of units, but minus seven per cent in terms of revenue. And the fastest growth segment in this space was within the web-managed arena, for smart switches, which show huge growth. A really interesting conundrum which presents some interesting challenges.

Software-defined networking is now a mature technology, which is exactly why now is the time for data centre operators to start adopting the techniques of the internet giants such as Facebook, Twitter and Amazon. And time to evaluate what a brite-box system can offer to help ensure that data centre operators can compete, as the cloud becomes the default platform.

Operators are looking for simpler network connectivity in the "Industry 4.0" business environment. And D-Link can foresee a healthy six per cent growth, year-on-year, in unmanaged switches at the remote end and data-centre class switches in the cloud environment, because users just need capacity.

Essentially, there is huge opportunity for growth in the brite box and smart switches business, because controlling and co-ordinating the explosion of connectivity that is set to accompany the Internet of Things era is the next major challenge.



**For more information: [www.dlink.com](http://www.dlink.com)**

D-Link European Headquarters. D-Link (Europe) Ltd., First Floor, Artemis Building, Odyssey Business Park, West End Road, South Ruislip HA4 6QE, United Kingdom. Specifications are subject to change without notice. D-Link is a registered trademark of D-Link Corporation and its overseas subsidiaries. All other trademarks belong to their respective owners. ©2018 D-Link Corporation. All rights reserved. E&OE.

Updated April 2018

**D-Link®**