



The future in focus

Next Generation

Data Center

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Introduction

We'd hoped to introduce this Azlan guide by providing a widely agreed definition of the Next Generation Data Center. To be frank, it proved extremely difficult to find a consensus view, such is the varied interest and broad scope of this fast evolving topic. That said, for Azlan the Next Generation Data Center is an issue right at the heart of future strategy for our entire channel community and extremely worthy of exploration in this discussion document.

A number of business drivers are converging to accelerate investment in the Next Generation Data Center. Customers are thinking 'Mobility First' and reinventing network and computer capabilities to reflect this. Data is growing exponentially, as are the compliance and governance issues surrounding it. Cloud is increasingly driving IT strategy and fundamentally challenging traditional infrastructure thinking. And in the background the regular drivers of technology refresh, reducing IT complexity and increasing cost efficiency remain important criteria for data center strategy.



THE DATA CENTER SOLUTIONS MARKET

is estimated to grow from US\$18.56Bn in 2015 to US\$32.30Bn by 2020, a CAGR of 11.7%

(Markets and Markets 2016)



TOTAL SPENDING ON IT INFRASTRUCTURE

For deployment in cloud environments increased by **18.9%** in 2016 to reach

\$38.2 billion



Spending on private cloud IT infrastructure will grow by 11.1% year on year to \$13.9 billion geared toward on-premises private cloud deployments.



In comparison, spending on enterprise IT infrastructure deployed in traditional, non-cloud, environments **declined by 4%** in 2016, but still accounted for the largest share, **62.8%**, of end user spending.



Spending on public cloud IT infrastructure increased by 14.1% in 2016 to \$24.4 billion.

Technavio's market research analyst predicts the global data center market to grow at a CAGR of close to **11%** between 2016 and 2020.



(IDC 2016).

Key characteristics of a Next Generation Data Center

So, as we look to the future of the data center, what are the key changes to look out for?

Software-defined means everything: Security, storage, networking and even the data center itself, SDx means all these aspects are abstracted from the physical layer that defines a traditional data center, into a logical layer that delivers IT-as-a-Service, with complete control and instant agility around managing physical, virtual and cloud resources. In the Software Defined Data Center (SDDC), all infrastructure is virtualised and delivered as a service. Control – including hardware configuration – is fully automated via software.

According to Gartner, “The primary goals of the SDDC are agility and speed – allowing IT-enabled services to be quickly, and transparently, provisioned, moved and scaled across network segments, across data centers, and potentially into the cloud, independent of the physical infrastructure underneath”.



Security is critical: In the Next Generation Data Center, customers are looking for multi-vendor, hybrid-IT enabled security solutions capable of addressing the broader threat environment. Security is moving beyond the firewall and physical infrastructure, to span virtual and cloud environments. Virtual security appliances, delivering greater flexibility and control over networks, traffic and policy creation, will become prevalent. New **policy engines** are necessary to address issues such as DDoS intrusion prevention/detection and data-loss prevention. Mobility and BYOD are demanding **cloud-ready endpoint control**, capable of scanning all inbound devices at a granular level.

Gartner adds **software-defined security** to the debate, “Information security infrastructure is too rigid and static to support the rapidly changing needs of digital business..”, “...security, like the rest of data center infrastructure, needs to become software defined... to ensure that the appropriate security controls automatically remain in place, regardless of where an application moves – whether on-premises or to public clouds.”



Infrastructure Agnosticism is the new data center religion: Traffic within the data center will rise significantly. To manage and optimise traffic flow, enterprises will look to manage it free from infrastructure restrictions and vendor lock-down. Next Generation Data Centers will focus on open technologies, with APIs as standard to simplify integrations. Enterprises will favour an environment where they can communicate regardless of the underlying hardware, where the data center won't differentiate between types of hardware, only that appropriate resources are made available to the software-defined stack.

Many vendors are recognising the potential threat from cloud-based disruptors, and moving from a proprietary outlook to re-focus on open standards and interoperability. Even where technical integrations prove difficult many vendors are forming strong commercial alliances and collaborating to deliver more interoperable solutions going forward.



It's about efficiency/automation: They might be more complex, multi-vendor environments spanning physical, virtual and cloud, but for organisations the Next Generation Data Center will deliver: greater self-service, fewer barriers to provisioning and easier builds of development environments. The Next Generation Data Center will provide better workflow orchestration, more efficient automation, more integration at the API layer, and dynamic optimisation. Data center administrators may turn to robotics to speed up routine tasks, or even for more innovative improvements such as monitoring temperature and humidity conditions or improving business process automation techniques.



More multi-layered control and DCOS: The Next Generation Data Center needs new levels of data center management to manage policies, resources, users, VMs – everything from chips to cooling. Enterprises will look to deliver proactive DCIM and DCOS that scales easily and provides a holistic view of the entire environment.

Carbon footprints to fall, energy efficiency to rise: Financial and governmental constraints are increasingly impacting data center design and operations and are becoming a key opportunity in the green debate. Power and cooling technologies will continue to improve and be supplemented by eco-friendly best practice in data center management. Organisations placing workloads into cloud data centres will increasingly apply financial and ethical pressure on providers to stay at the forefront of data center energy efficiency.



What's the partner perspective?

For many VARs, the evolution to the Next Generation Data Center presents significant challenges and opportunities. Most obviously it's about selling a different type of on-premise solution, moving away from a point product perspective with services and wraparound, to solution-driven selling. It's also about the economics, moving from a CapEx perspective to being OpEx led, with a focus on IT enabled savings and efficiencies. Today's data center conversations have commoditised the infrastructure elements and are focusing instead on topics such as hyper-convergence, enterprise mobility management, security and software-defined everything.

For infrastructure-focused partners facing an ever-shrinking addressable market, the choices are becoming clearer. For many this means a move towards Managed Services provision or position to become a niche specialist supporting MSPs, perhaps with a security or hyper-converged focus, or a combination of these models.

It's also important for partners to accept that there will be a growth in costs associated with a solutions focus, but that increased costs will eventually be outstripped substantially by a growth in revenues. In particular partners must be ready to accommodate new subscription software models, where revenues flow evenly over time rather than delivering lump sums upfront.

One of the key challenges for partners is to add not just new sales and technical skills, but also to develop the soft skills crucial to successful solution selling. Key amongst these are listening skills. Partner sales teams, with an eye on the Next Generation Data Center, need to be able to understand the true 'nature of the need' and get into a position to recommend true 'needs driven solutions architectures'. Partners also should accept that it's ok to say "I don't know" during these 'New' conversations and request time out to develop the right response. Only by adding these soft skills can partners expect to be a trusted advisor to their customers.

"...the datacenter networking market will keep transforming rapidly as a consequence of the ongoing deployment of cloud computing in all its forms, supported by virtualisation and maturing software-defined network technologies." (IDC EMEA 2016)



"Cloud computing continues to grow at rates much higher than IT spending generally".

(Gartner 2016)

How is Azlan supporting Next Generation Data Center opportunities?

We're investing in a Solutions Practice structure, designed from the ground up to support 'New' models for IT delivery and the solutions underpinning future business growth. These practices bring together strategic, sales, configuration and technical consultants, working together to enable a partner to develop their roadmap for growth and new business models, and to facilitate change. Azlan's consultants work within partner organisations to supplement and extend resource levels, and externally, representing partners in End-User sales and technical scenarios.

Collaboration is at the heart of Azlan's Next Generation Data Center strategy. We're using our unique view of the technology landscape to develop ecosystems spanning all types of partners and all sizes of vendors, bringing together unique combinations of technology and expertise to maximise benefits for customers and streamline channel delivery.

Achieving success in the Next Generation Data Center, be it as an MSP or specialist partner, means bringing new skills into the organisation. The award winning TD Channel Academy provides our partners with access to the best in online training and education. Academy users benefit from a gamified learning environment, bite-size training modules, personalised learning environments and friendly competition with colleagues and peers. In addition to the sales and technical skills demanded by the Next Generation Data Center, the Academy also provides broader solution selling and soft-skills learning opportunities.

If you'd like to discuss the Next Generation Data Center in more detail, engage in planning new opportunities in this market or develop your organisation's skills in this area, you can participate by talking to your Azlan account team today.

More information at [azlan.com](https://www.azlan.com)

Be the business delivering the Next Generation Data Center. Azlan. Be there now.





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