

Adopting a converged approach to branch office IT

The face of today's enterprise is changing: as IT becomes the focal point, executives are utilising technology in new ways and ultimately, it has become a tool to achieve business goals - from cost savings and improved infrastructure, to optimised business processes and increased efficiency.

 By [Christo Briedenhann](#) 26 May 2014

Businesses now need to adapt and improve the way they are adopting and consuming technology in their journey to meet these goals. Within the organisation, IT is becoming more of a 'service provider', playing a fundamental role in the foundation of the company and can have a huge impact on the bottom line. This means giving users access to the right technology may be a priority and making constant changes to their IT infrastructure to keep up with the continuously evolving shifts in technology.

Infrastructure has become so complex that even growth can bring unique challenges to an organisation. To contend with an ever-increasing list of devices and applications that need support, many businesses are adopting converged infrastructure enabling them to centralise their ability to manage technology. This is especially helpful where an organisation has remote offices.

Addressing the challenges

Remote offices help companies connect with employees and customers in different geographic areas. The result is greater business penetration but also a potential headache for the IT team. These branch offices have all the technology needs of corporate headquarters, but rarely have a full complement of IT professionals to manage them.

From provisioning new instances through application delivery to disaster recovery, it can be a tremendous challenge to ensure that branch offices are fully operational, with the applications that users need and the infrastructure to support it. If there is a disaster, such as a major weather storm or a flood, restoring information and services to remote users can take days or even weeks, with every minute of downtime costing the organisation money.

Why the converged approach is best

At its heart, converged infrastructure collapses disparate compute, storage, and network infrastructure into a single appliance, all with industry-standard virtualisation and automation capabilities. The result is a pre-integrated stack optimised to run workloads at the branch.

A converged approach to branch office IT not only eliminates the need to purchase and maintain separate servers and storage at the branch, but also shifts the management and administration focus to the data centre. Leveraging standard virtualisation tools enables organisations to rapidly provision and maintain workloads from the data centre, eliminating the need to "fly and fix" branches locally. The outcome is that users still have access to applications locally, but control remains in the data centre.

Ideally, converged infrastructure would enable "stateless" branch services, in which users access applications running locally in the branch yet primary source of data is centralised in the data centre. With this technology, only the required subset of data resides at the branch, and changes sent to the centralised storage in the data centre. From a security perspective, most data is no longer stored in remote locations and the local subset of data is encrypted, so in case a converged appliance is stolen, the risk of sensitive information being accessed by malicious parties reduces dramatically. From a storage perspective, all management is centralised to the data centre where advanced capabilities such as cloning and snapshots are available.

Protecting the data

Traditional data protection and disaster recovery approaches in branch offices have been inefficient, complex, and very expensive. In order for successful recovery of branch resources in the wake of a disaster, IT would not only have to replace physical hardware, but it would also have to redeploy and patch operating systems, re-provision software and restore the necessary data. Successful converged infrastructure requires the ability to manage all these functions centrally and remotely, in order to restore full functionality without the delays that come from the traditional remote office backup system.

With converged infrastructure, primary data is back in the data centre, which translates to simplified and streamlined data protection practices. Organisations no longer need to setup and maintain backup in each branch separately, and can take advantage of advanced centralised data protection practices in the data centre, reducing the overall complexity of their data protection practices and increasing their reliability. Since data is updated from branches to data centre in near real-time, risk of data loss drops dramatically, from Recovery Point Objective (RPO) of 24 hours to minutes or even seconds.

In case of a disaster or outage, having converged infrastructure at the branch and primary source of storage in the data centre simplifies the recovery process. IT can remotely boot workloads from the data centre to any branch location or even start the workloads within the data centre until branches become available. This process reduces Recovery Time Objective (RTOs) from days, sometimes weeks, to as low as a few minutes, and with such a simplified approach, substantially increases the reliability of the process.

The modern business operates in a 24/7 economy. Technology means we are never switched off and our customers demand quick service and access to information at any time. Indeed, branch offices are a major part of maintaining the global presence and this means the availability of their applications and data must be non-stop. With the adoption of a converged infrastructure, enterprises can enjoy benefits both internally and externally: high performance and availability for the customer, with simplified management and control over resources for their employees.

ABOUT CHRISTO BRIEDENHANN

Regional Director at Riverbed Technology
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