



A New Approach to the Challenges of Multisite Branch IT

Introduction

Solving the branch IT challenge is fundamental to the business success of distributed organizations. Technological advances combined with pressure to deliver new business models, new ways of engaging with customers, and uniform operating models are leading to pressure for advanced, coordinated IT capability across all sites, no matter how remote or how small. But, as always, this must be achieved without putting further strain on already overstretched IT budgets. And support has been a challenge for IT departments. Disparate remote sites and branches without local IT skills can increase the load on central IT departments. Fortunately, the availability of new types of cloud-managed servers open up new opportunities for effective, cost-efficient and high-functionality remote site IT.

The Need for Effective Multisite Branch IT

Here are some of the major needs that are driving organizations to review their branch IT strategy:

Spiralling remote site support costs

The per-capita cost of supporting remote branch IT is historically much higher than that associated with co-located infrastructures.

This increased cost arises from the cost of the time and travel needed to get to these remote sites if on-site support is required. This cost is further increased if sites are distributed internationally. In addition, if untrained local staff are required to perform any IT activity, or choose to do so on their own, the opportunity for mistakes and expensive fixes increases greatly. Sometimes, it can be a struggle to keep on top of changes that might have been made locally.

New customer models requiring high-functionality applications

As organizations seek to interact with their customers and clients in new ways, branches are becoming an integral part of a multichannel engagement model. Retailers, for example, face a challenge to deliver a coherent digital strategy that encompasses multichannel retailing — an approach where the customer chooses how to purchase and fulfil their transaction. It requires a complete alignment of retail systems to serve customers across all channels in all locations, including in-store in real time.

Consolidation of network functions

Network functions like firewalls, routers and WAN optimization have already been successfully virtualized. The benefits of consolidating network and IT functions on remote sites could deliver many benefits for the distributed organization. In addition to the space saved in combining two, three or four physical technology boxes into one, there are power savings that lead to a reduction in CO2 emissions. It should also result in saving on infrastructure costs as multiple virtual software components running in the same server should cost less to acquire than separate appliances with separate management systems and separate support agreements.

IoT in your near future

Slightly further out on the horizon is the Internet of Things (IoT). This could take many forms of remote site applications, including RFID sensors, beacons, video, or any range of devices that collect and exchange data on people, products and objects, or the environment. With IoT, masses of data are created. There is an inherent need to store and analyse this data locally, with periodic communication and reporting to centralized control points.

These examples — and many more like them — share a common requirement for advanced local functionality, integrated across distributed organizations, without local IT skills to commission, manage or support them. This can lead to inertia within an organization with new and innovative processes, business models, or customer engagement strategies not being adopted because of the difficulties of making them work at the local level.





A Cloud-First Strategy

Many organizations have addressed these challenges by operating a cloud-first strategy, which affords many benefits, including a reduced emphasis on infrastructure and a greater focus on application and business process. However, a cloud-first strategy is not a cloud-only strategy. Many of the new and innovative applications (as well as most legacy ones) require IT infrastructure on the remote site. Consequently, although the public cloud has a significant role to play in branch IT, it does not support some of the most demanding business requirements of the distributed organization. This may feel somewhat ironic after all the effort spent to remove servers or reduce their footprint.

This is fuelling demand for locally deployed advanced business applications and data storage. The challenge is to deliver state-of-the-art, often complex and usually dynamic IT to remote sites without the need for expensive on-site expertise, or without over-taxing already stretched centralized IT resources.

Redefining Local Servers

Organizations have looked to the cloud to solve remote site IT. So what was wrong with local servers? Traditional servers need regular love and attention. Historically, the infrastructure used to carry out server maintenance on remote locations was lacking, resulting in high support costs and low service levels.

Two major and interconnected developments — hybrid cloud and hyper-convergence — are allowing us to redefine servers in a way that meets the needs of advanced local IT capability without the advanced local IT skills.

Hybrid cloud allows organizations to choose what IT functionality remains on the local site and what is delivered from the cloud. With hybrid cloud, you have a server on your site, but it exists as a private cloud integrated with the public cloud and managed through the cloud. It's a server that sits on the site with all the advantages of control and responsiveness. But it doesn't require any manual intervention: It is always kept up to date, right-sized and secure through the cloud by experts.

Hyper-convergence has historically been primarily concerned with large-scale data centres and cutting-edge storage technology. However, such technology is now migrating to the smaller site. It's an architecture that tightly

integrates compute, storage, virtualization and other IT functions into a single appliance, based on industry-standard hardware. If you need more storage or compute power, or other IT resource, you simply buy another hyper-converged server that automatically integrates with your existing resources. It's like bringing the benefits of the cloud to the premises, with flexible and expandable capability easily available without expensive and complex IT projects being required. This brings significant cost and flexibility benefits, resulting in advanced functionality for remote office / branch IT and is much easier to commission and support.

These technologies come together in cloud-managed servers. With cloud-managed servers, capacity can be put back on premises at a low cost with a high SLA. By using cloud-managed servers based on a hyper-converged software platform, organizations can obtain their own

flexible cloud on premises without compromise. When combined with a cloud-first strategy, this provides an excellent base for running the business and experimenting with new services.

Cloud-managed servers control all the infrastructure of the server, including hardware, firmware, virtualization and management. It manages compliance, security and keep current. It takes responsibility for cloud service integration, backup and disaster recovery. It also manages all the standard workloads like Active Directory, File Server and Print Server. The cloud-managed server provides the Infrastructure-as-a-Service (IaaS) virtual machines that a central cloud would provide, except they are on site. This enables the business to choose which applications to run as well as where they run.

Cloud-managed servers deliver packaged IT functionality, which can be run on any site, regardless of local IT support skills or the resilience of local network connectivity. They are the ideal solution to the needs of the remote site, in as much as they allow a flexible IT strategy with applications being placed where they deliver the most benefit, and support resources optimized across the whole distributed organization.

IT Service Providers and Remote Site Support

By definition, IT service providers that deliver and support the IT needs of multiple SMB customers need all of the resources available to large organizations that must support multiple branches in a corporate network. In effect, they can be seen to manage multi-client remote sites. However, they face added challenges in that they must do so in a way that delivers repeatable, demonstrable value to their customers, and that is efficient enough to deliver operating margins in a very competitive market. Many service providers have found differentiation tough in an environment when they often resell commodity cloud services, where margins are becoming harder to protect. Cloud-managed servers allow service providers to provide high-value, differentiated IT to their SMB customers by providing a platform for local application adoption and SMB business innovation. At the same time, the inherent hyper-converged architecture and cloud management capabilities offer opportunities to drastically reduce the cost of service delivery and increase margins.



The IT Professional Perspective

A key role of the IT Professionals is to marry the strategic direction of the business with a set of equally strategic technology choices, and then develop a roadmap that delivers a programme of change that seeks to align the two.

In the recent past, the IT Pro that has rightly chosen a cloud-first strategy has struggled to articulate a branch strategy that is consistent with the cloud. Once the provider or cloud and network infrastructure is chosen, the cloud element of a cloud-first strategy rapidly becomes business-application focused; infrastructure considerations rapidly subside. Contrast this to the branch discussions that nearly always focus on infrastructure, support and integration to the detriment of application development.

With the advent of cloud-managed servers, an IT Pro can now express coherent and aligned strategy across the business. It will enable them to meet the common objectives in most multisite organisations:

1. Consistent technology platform for all locations and businesses.

A cloud-managed server based on a hyper-converged architecture delivers a single technology stack that has the flexibility required to meet the differences in scale and locality that is found in any real multisite environment. A cloud-managed server can be scaled appropriately or run different combinations of applications in different locations.

2. Single set of data

Providing customers, employees and associates with a consistent and up-to-date set of data any place at any time is crucial today. Cloud-managed servers help with this strategy by complementing and augmenting cloud-based applications with local authentication, security, caching and

the ability to host specialist outreach apps that wouldn't otherwise operate technically due to the remoteness of the cloud and bandwidth limitations.

3. Best practice in IT and to support operational excellence.

A standard technology stack is fundamental to an organisation's ability to build a consistent set of practices in order to achieve predictable performance. The combination of a central cloud platform combined with cloud-managed servers delivers a uniform and consistent cloud-like experience across the business. It enables an IT team to focus on putting the right functionality in the right place without compromise.

4. Resilience in order to keep operating

Hyper-converged cloud-managed servers are resilient by design because they support scale-out architectures with automated failover in the event of hardware faults.

5. Good functional fit to requirement out of the box

Cloud-managed servers are fundamentally designed to operate remotely, and so are well-suited to a branch environment. They are designed to be secure and have all the infrastructure to operate autonomously should connectivity temporarily break down. They also have built-in keep-current technology, so that they can be kept up-to-date over many years and many complete software releases without having to send people to the site.

The remaining challenge for the IT Pro is to choose the right partner with appropriate geographic coverage.

An ideal strategy for the IT Pro of a multisite business should be cloud everywhere: cloud-first for centralised applications with cloud-managed servers on the edge.

The New Norm

The fundamental shift in cost-effective, high-functionality, small-site IT delivered by cloud-managed servers is a game-changer in the world of branch IT. And it offers new opportunities for IT services providers to prosper in the cloud world. In the future, this approach for delivering complex local application capability without a corresponding complex IT infrastructure will be the norm.

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