



IDC TECHNOLOGY SPOTLIGHT

Affordable, Scalable Server Solutions to Serve Resource-Hungry Small Businesses

March 2017

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Sponsored by Hewlett Packard Enterprise

Small businesses (those with fewer than 100 employees) tend to be limited in their technology resources, even those with full-time IT staff. However, they are increasingly under pressure to maintain if not enhance their competitive differentiation, which they do by leveraging advanced technologies. While a growing share of small companies have their own on-premises infrastructure, the changing nature of the digital economy and increasing competitive pressures are prompting growing interest in thinking in new and innovative ways about how this infrastructure can be utilized for maximum impact. Vendors such as Hewlett Packard Enterprise (HPE) are taking note. For instance, HPE, in conjunction with ClearCenter – a software vendor that makes ClearOS, a Linux-based OS – offers a comprehensive cloud-based solution that provides small businesses with the flexibility and ease of expansion needed to tap the technology capabilities they are interested in without having to over invest or compromise on performance. This paper explores the need for such an approach in the small business market.

Introduction

Small businesses have been important beneficiaries of the technology transformation associated with what IDC calls the "3rd Platform," the use of social, mobile, cloud, and big data resources as a part of their business processes. Effective leverage of technology is also an important contributor in improved financial performance as well as in the agility that allows small businesses to compete successfully against larger firms. This is especially true as customers – both businesses and consumers – grow ever more demanding of the firms they work with.

Over two-thirds of small businesses now actively use cloud resources, especially software, provided in software-as-a-service solutions. But for many the successful coordination of hardware and software is more an aspiration than a reality, with firms looking for better alignment of hosted and on-premise resources even as they expand their use of cloud capabilities. For a growing number of firms, improving the coordination of resources, whether on-premises or in the cloud, is viewed as a competitive imperative, a way to continue the performance improvements essential for business success. IDC expects that the continuing advances of the digital economy, where relationships are streamlined, transactions become more "frictionless," and traditional business models are transformed, will all add to the pressure on small businesses to improve their internal performance and external relationships.

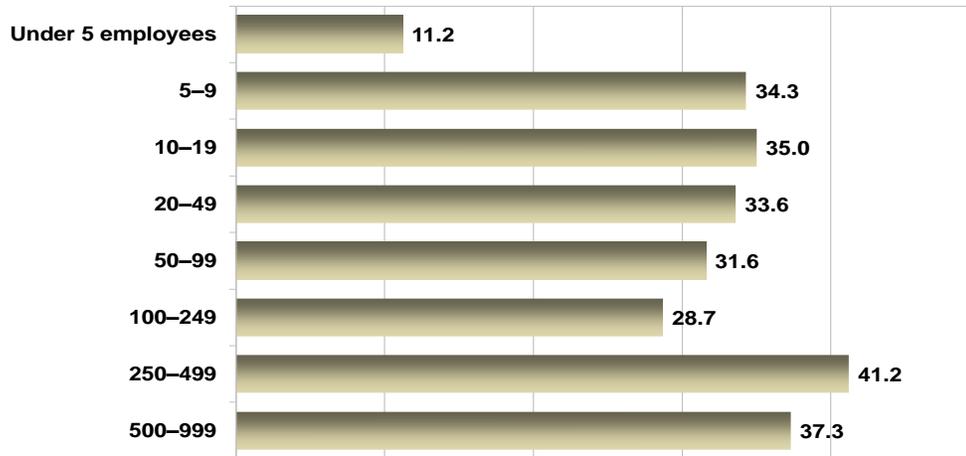
Small Businesses are Interested in Expanding Network Resources

Forward-looking small businesses are particularly interested in making better use of cloud resources. This is especially true of a group IDC has identified as SMB 2.0 firms, which tend to be faster growing and agree that advanced technology is an important competitive differentiator. In fact, 37.5% of these

firms cite improving servers and networks as key IT spending priorities, and a similar view is shared by small businesses once they grow to 10 employees or more. Many firms plan to expand or add to their current network environments, but the question is how best to expand new server, network, and application resources?

Figure 1

Share of U.S. SMBs Citing Server/Network Infrastructure as a Top IT Spending Priority



Source: IDC U.S. SMB Survey Q1 2017

Beyond using cloud resources more effectively and leveraging on-premises resources is the desire of small businesses to make sure that technology engagement keeps up with internal business needs and, more importantly, the changing external environment, where customers, suppliers, and partners are changing how they prefer to engage and be engaged.

An Important Goal: Coordinating On-premises and Cloud Resources for Maximum Benefit

Small businesses have the challenge of balancing conflicting pressures: how to apply innovative solutions (often cloud-based) while maintaining the value of past investments in technology used for internal operations that have proven effective and successful (usually based on-premises). The issue of security is a continuing concern among small businesses and remains the No. 1 reason cited for not embracing the cloud more actively. While the number of "cloud only" firms has been growing, those firms are still relatively rare and typically early stage start-ups. Cloud capabilities are appealing to smaller firms, but small companies can also be conservative and seek to balance the appeal of cloud provisioning with the security of on-premises equipment.

A hybrid approach provides attractive components of both views -- secure on-premises resources enhanced by cloud-based flexibility to add new applications. SMBs, especially smaller ones, prefer to move at their own pace, sometimes taking bold steps to rework important processes (often driven by competitive pressure). At other times, they move more cautiously, conserving resources even while considering next areas for major change.

Considering HPE/ClearOS

HPE, a global leader in providing advanced technology resources to small businesses, is partnering with ClearCenter in an exclusive arrangement to provide in one package comprehensive server, operating system, and applications resources. While the cost of network and server operating

systems can be a significant hurdle for many firms (adding significantly to total server costs), the HPE/ClearOS solution provides the operating system with no upfront charge.

As a general, role-based solution, ClearOS provides network capabilities as a differentiator, with ease of use being an important attribute. General purpose OS apps can then be brought in with relative ease through the web interface as needed. This is true for other applications as well. ClearOS is intuitive and easy to navigate, and its web-based interface simplifies the deployment of the server in the datacenter.

The HPE/CloudOS solution hybrid approach provides on-premises resources for security and control, combined with cloud-based delivery and management that helps coordinate software updates and upgrades as well as support of remote locations and users. In effect, IT chores can be reduced since updates are accomplished online automatically via the cloud.

One concern that small firms have about cloud resources is that higher than anticipated resource use can result in higher than anticipated fees. Companies don't mind paying for what they get, they just dislike surprises. The monthly payment subscription model used with the HPE/ClearOS solution can help firms avoid the sticker shock of technology acquisition (especially front-loaded software licensing fees). In fact, many ClearCenter applications are available at no charge. For those applications that are associated with additional fees, the ability to pay just for what is currently needed is especially important, rather than having to anticipate and contract for future capabilities. At the same time the ability to expand users or add new applications with basically one click provides the simplicity and flexibility that firms appreciate.

Three Solution Components: HPE Servers, ClearOS Network Operating System, Portfolio of Applications

HPE offers a range of affordable ProLiant Gen9 servers for the ClearOS operating system and applications. Three HPE ProLiant models are available for customers with ClearOS preloaded: ML110, ML30, and DL20. These are well-suited to handle small business workloads like communications and web services. In addition, HPE is making ClearOS available for download and installation via Intelligent Provisioning on all ProLiant servers 300 series and below. HPE will also make ClearOS available for download on HPE.com.

The ClearOS is a Linux-based server, gateway, and network operating system designed to be an effective alternative to more expensive bundled combinations of individual server, network, and gateway hardware components. It complements a Windows environment as a gateway (intrusion detection and prevention, content filtering) and networking (firewall, routing). As such, customers can replace certain networking devices like firewalls and VPN gateways with ClearOS, saving more money and lowering support costs. Being Linux-based, it runs many of the standard services out-of-box and for no additional charge. The OS can also be downloaded to servers already in place. HPE indicates that many current customers, after exploring ClearOS's network capabilities and ease of use, add general role-based OS capabilities. In addition, IDC believes that small businesses will appreciate the free future updates, patches, and fixes done automatically via the cloud for all servers running ClearOS.

ClearOS has an online Application Marketplace of 100+ applications and services that SMB customers can browse and install online. Some are free, others fee-based, with the key benefit being that customers only obtain those applications they want – there is no burden of unused or unwanted applications consuming storage and management overhead. IDC has found that small businesses are increasingly comfortable with sourcing new applications through "online stores" that provide the ability to review different capabilities and arrange for convenient deployment in a timely way.

It is also noteworthy that the web browser user interface of ClearOS provides for a high level of security. Security is an important small business concern regarding cloud-related software and it is particularly essential for mobile users. The web-based GUI allows for efficient navigation of applications as well as the ClearCenter application marketplace.

Challenges

For small firms, there are considerable challenges associated with the integration of server hardware, operating systems, and applications. While many firms prefer the idea of assembling "best of breed" solutions in an effective way to maximize performance, the convenience and appealing time to value of bundled solutions are compelling, especially when essential software comes preloaded on servers without additional charge.

Smaller firms lack the resources – time and money – to conduct a comprehensive review of server hardware, operating system options, and potential applications to identify and acquire the resources they need to maintain and expand their IT capabilities. Some smaller firms are remarkably tech savvy and may already be exploring the benefits of open source Linux-based operating systems. While these systems can be appealing from a cost perspective, they may not have the next generation flexibility associated with the HPE/ClearOS approach. The simplicity of the HPE/ClearOS model is most apparent as new capabilities are added over time. When firms decide that they need to add a dynamic VPN or firewall, they can find an appropriate ClearOS application available for immediate download, saving considerable time and effort.

Conclusion

Much as consumers are looking to save money by "cutting the cord" with cable TV providers and assembling their own targeted program packages to meet their specific needs for less money, small businesses are looking to acquire and use technology in more innovative and flexible ways. While saving money is often the catalyst for change, the real objective is greater personalization and customization. Small firms can be surprisingly flexible regarding budgets if technology solutions can meet today's needs in an affordable way while providing a clear path toward future capabilities.

The HPE/ClearOS solution provides just such an approach with on-premises servers supported by a free operating system and an online marketplace of applications available through a subscription model. The hybrid approach offers the appeal of online access to resources, support, and fulfillment combined with the comfort and security of on-premises IT. While IDC believes that forward-looking small firms seeking to acquire a server for the first time will find this approach appealing, others looking to add more servers, upgrade their environments, or support remote locations will also find the HPE/ClearOS approach of interest.

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