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How Cloud Can Remove Complexity from Your VDI Deployment

Back in 2009, Gartner issued a report predicting that hosted virtual desktops – the concept that many refer to as virtual desktop infrastructure, or VDI – would grow from less than 1 percent of the worldwide professional PC market at the time to more than 40 percent of the market by 2013.

Clearly such growth was not the case, but the prediction speaks to the potential and promise of VDI. Nearly a decade after Gartner published that forecast the benefits of VDI still address many of the concerns and challenges that IT organizations face on a daily basis.

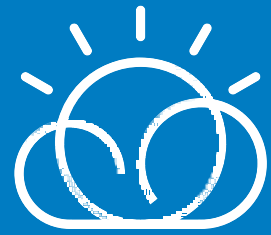
For example, VDI remains an effective strategy for improving security. By removing data and applications from individual devices, IT organizations can more easily protect themselves from threats, including their own employees, who remain a very weak link in information security. Likewise, VDI can also improve compliance by increasing the protection of sensitive information. In certain use cases where a single machine is shared by multiple people, such as in a classroom, a clinical healthcare setting, or on the floor of a manufacturing facility, VDI is still an effective way to manage multiple users and maintain security while promoting productivity.

In many ways, the concept of VDI is more relevant today than ever:

- The advent of the “gig economy” and the increase in contract workers and seasonal employees provide another use case where keeping applications and data centralized in the data center can improve security and ease the burden of managing users and machines.
- Today’s workers often rely on multiple devices, and VDI’s ability to transcend device type, form factor, and operating system to make applications and information available to workers increases productivity and flexibility.

In this Paper

- The promise of virtual desktop infrastructure (VDI) has been obvious to IT professionals for years
- High costs and complexity are among the significant challenges facing on-premises VDI deployments
- Desktop-as-a-Service (DaaS) combines the advantages of on-demand, pay-as-you-go cloud services and VDI





- The ramifications of a data breach — in terms of real costs and brand damage — are a top-of-mind issue for C-level executives and board members, which makes the security advantages of VDI particularly appealing, especially in highly regulated industries.
- Deploying and managing PCs for the workforce is complex and costly, especially when taking into account the updates, patches, and security aspects of the job.
- Further complicating deployment and management is the increase in remote workers and globally dispersed workforces, which create additional layers of complexity.

With so many advantages to deploying VDI, it is easy to understand Gartner’s decade-old optimism. But the cost and complexity associated with VDI simply outweighed the advantages for many IT organizations.

- Traditional VDI deployments that host data and applications in on-premises or co-located data centers require a significant upfront investment in infrastructure, including the compute, storage and networking resources required to make the VDI user experience on par with that of a physical device.
- Once deployed, this infrastructure needs to be managed — patched, updated, and configured. It also needs to scale as the number of VDI users fluctuates with seasonality or other workforce changes.

- The VDI infrastructure also adds to facilities costs, such as physical space, power, and cooling.

Businesses, and specifically their IT organizations, are now in a period of digital transformation, where technology is being used to fundamentally change the way they operate. Many IT organizations need to think strategically about how they allocate their IT resources, and infrastructure management often does not fit the bill.

As organizations continue to offload infrastructure and its associated management and costs to cloud providers, investing in a traditional on-premises VDI deployment does not make good business sense. A more modern approach, from both a practical and strategic standpoint, is to employ cloud-based resources to reduce the cost and complexity of VDI.

Simply VDI by Adopting Desktop-as-a-Service

Desktop-as-a-Service (DaaS) modernizes the traditional approach to VDI by replacing the on-premises infrastructure with a cloud-based model. This allows organizations to take advantage of the best aspects of VDI and cloud computing, without investing in costly infrastructure.

IT professionals involved in other cloud migrations will immediately recognize two major advantages of DaaS. First, the ability to offload infrastructure costs and management to a cloud provider helps redefine how an organization uses its IT resources. Secondly, the ability to institute pay-as-you-go-

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pricing to accommodate fluctuations in DaaS usage and demand significantly changes the economics of DaaS when compared to a traditional on-premises VDI deployment.

Cloud computing puts DaaS within reach of many organizations – even those that could never afford an on-premises VDI deployment. And while pay-as-you-go pricing and moving costs from CapEx to OpEx are important, any cloud provider can deliver these benefits. It's crucial that IT organizations identify the right DaaS partner for their business.

Here are some important considerations when exploring a DaaS provider:

Partnerships

Creating a DaaS experience that rivals a physical PC experience is vital to the success of any deployment. IBM partners with industry leaders to ensure its DaaS offerings deliver the best experience to a broad range of end users. Foremost among these partners is VMware.

VMware Horizon is an industry-leading desktop virtualization environment that offers users access to their virtual workspace from any device, anytime, and from anywhere. Horizon supports all of the popular operating systems in use today, including Windows, Linux, Chrome, Android, iOS, and Mac. It also supports the common features users expect from their devices, including connections for audio, USB, printing, webcams and more. The IBM DaaS solution created in partnership with VMware is called VMware Horizon on IBM Cloud.

Other partners working with IBM to deliver industry-leading DaaS solutions include NVIDIA and NetApp, which deliver high-performance desktop and storage functionality to end users. Workstations powered by NVIDIA GPUs are now available through VMware Horizon on IBM Cloud, opening up DaaS deployments to job roles like architects, engineers, media professionals, and more. These roles benefit from the mobility DaaS enables, but they also require substantial processing and storage capabilities, which often posed a challenge in a traditional VDI deployment.

Service and Support

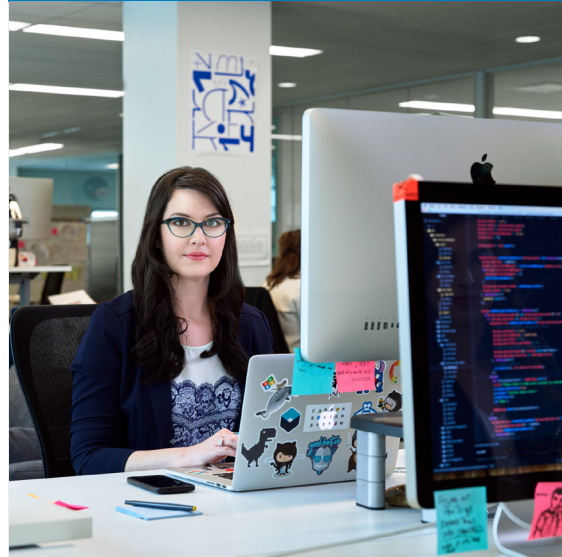
Services are another important area of differentiation for cloud providers in a DaaS environment. IBM offers VMware Horizon on IBM Cloud customers support with onboarding, desktop administration, image management, application management, service updates, and more.

Customizations

Deploying DaaS should not force IT organizations to forego the types of customizations that businesses use to meet their individual needs around networking and security.

VMware Horizon on IBM Cloud customers can customize the connectivity to their hosted infrastructure tenant. VMware Horizon on IBM Cloud can be deployed as an isolated, standalone environment with its own network and user services. Alternatively, customers can fully integrate the Horizon cloud into their organization's network services environment using IPsec VPN, Dedicated Connection, MPLS, or Network Exchange.

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Worldwide Presence

Businesses no longer need to be in the Fortune 500 to be considered global. DaaS is a valuable approach for fast-growing companies that need to support a global workforce across a broad range of devices and roles. A DaaS partner with a worldwide presence is an important consideration. VMware Horizon on IBM Cloud data centers are located around the world, including Dallas, Washington D.C., and San Jose in North America; Frankfurt and London in Europe; and Tokyo in Asia.

Conclusion

Years after their introduction, virtual desktops remain a potentially important tool for IT organizations managing seasonal or dispersed workforces, trying to improve security or compliance, or working to enable mobile employees. The upfront costs and complexity of VDI are, however, at odds with the strategic goals around transformation that dominate the plans of many businesses today.

Desktop as a Service combines the advantage of VDI and cloud computing to remove the cost and complexity of infrastructure while delivering the functionality users need. Among DaaS providers, IBM offers an industry-leading solution thanks to its partnerships with vendors like VMware, NVIDIA, and NetApp. Using VMware Horizon on IBM Cloud for DaaS opens up the benefits of virtual desktops to a broad range of organizations and job roles, while allowing IT organizations to focus on strategic initiatives and help grow the business.

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