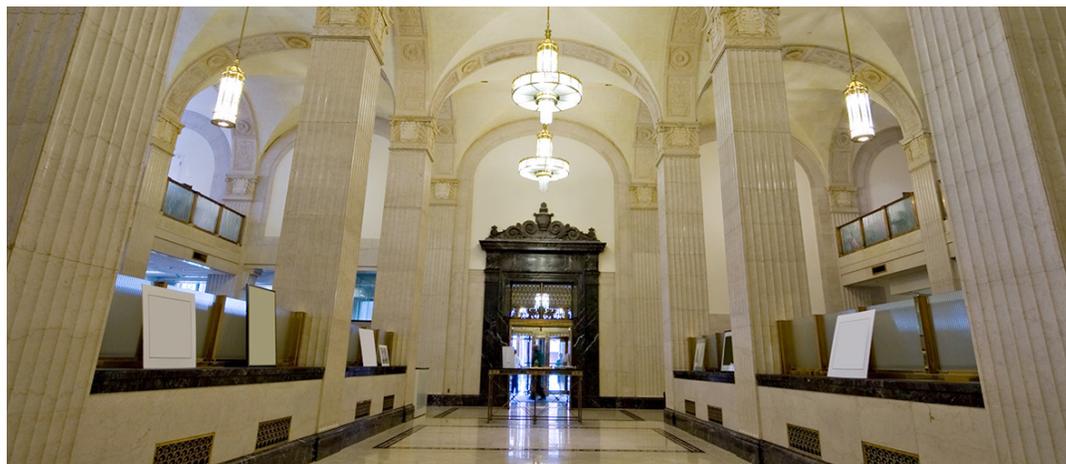# Ensuring Uninterrupted Access to Financial Services

Providing workers and customers with anywhere, anytime availability of highly secure and compliant applications and workspaces.

The digital economy is real and it has dramatically impacted consumer expectations.

Consider a banking environment where as soon as a customer enters the branch, the banker's device immediately provides prompts with holistic information about the customer relationship. The type of information that instantly identifies potential account issues, recommends courses of action, and most important, opens the door to discuss products or services that cater to the client's individualized needs.

This is exactly the type of engagement that the rapidly growing digital economy promises. The digital economy is real and it has dramatically impacted consumer expectations. Today's consumers place significant value on the intuitive experience regardless of whether they are walking into a branch or using their mobile device.

Understandably, this means organizations need to assess *how* they operate and make the needed changes to not only thrive, but to simply survive. However, in order to deliver on the experience described above there is a dire need for agility, visibility, resiliency, and unwavering availability that a dated infrastructure cannot provide.

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Failure is not an option

Despite the fact that customers are seeking a satisfying experience, most of the activity taking place at the branch level today remains transaction-oriented. Customers walk in and wait in a teller line to make deposits or withdrawals. And, unfortunately, these are often a bank's lowest-margin, least-valuable activities.

Naturally, the most progressive banks would prefer to utilize their employees in more of an advisory role, where they can easily guide clients to higher-margin products and service offerings. Underlying all of this is the notion of improving customer loyalty and satisfaction, with the idea of repeatedly drawing customers into the bank location. Fortunately, this level of attention is what today's customers value most.

Banks can accomplish this goal when they ultimately empower bankers and advisors to engage customers both on and off premises in ways that they have not been able to do within the traditional environment. This may mean the banker taking a tablet to a customer location (i.e., a customer office in a small business scenario) or perhaps just getting up from the desk and approaching a customer who is entering the branch. It is about being able to bring a full, inclusive, and secure platform directly to the customer, however the customer desires.

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When this level of engagement works, the banker is always empowered with a holistic awareness of the customer relationship across all channels. For example, before even approaching the customer, the banker already knows that the customer placed a call to customer service a few days ago or had visited another branch within the past two weeks.

Although change is necessary, branches look very similar today to what they looked like two decades ago. These highly distributed, community-based branches have been the traditional model for reaching consumer or business clientele. As such, most branch environments are supporting small clusters of diverse technology users including tellers, bankers, advisors, and brokers. As a result, productivity at the banker level has remained stagnant. Tellers, bankers, and advisors are tethered to their desktops with a dated infrastructure.

In order to deliver the experience customers desire, banks need to empower personnel with the technology needed to become increasing agile, without compromising the bank's ability to comply with strict data-security-centric mandates. This requires an investment in infrastructure that lends itself to iteration-based innovations.

The culmination of all these issues makes it very difficult for today's bank branches to improve customer loyalty and satisfaction in a meaningful way. Agility is a constant as institutions seek scalability and centralized management despite the challenge of a decentralized IT ecosystem that includes central office, branches, kiosks, and mobile access points, as well as a lack of assured availability of centralized applications. Whenever a branch wants to launch a new application, it's often an endeavor that can take months to properly deploy. Unfortunately, this puts a significant damper on the ability to introduce innovations. After all, innovation requires the type of iterative approach that doesn't work with traditional architecture deployments.

The bottom line is that there is a growing need to improve upon the customer interaction. Customers are open to change from the traditional teller line experience. For many, this level of interactive interaction needs to be accompanied with a rich multimedia experience. The approach needs to create a presumption that the bank is able to provide leading-edge advisory services to the customer. "The goal is to always have the customer walk away feeling that they had a wonderful experience that was both leading edge and real time," says Farid Agahi, senior business strategist with VMware

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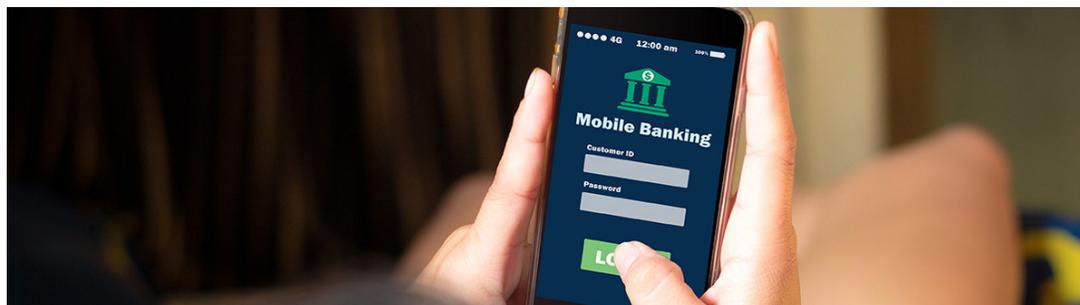
Ensuring high availability and resiliency

Adequately addressing cost, security, and agility starts with embracing a foundational infrastructure that provides organizations with anywhere, anytime availability of highly secure and compliant applications and workspaces. This is where the AlwaysOn infrastructure solution from HPE and VMware thrives.

By combining VMware's Cloud Pod Architecture utilizing VMware's AlwaysOn Digital Workspace solution with HPE Proliant DL380 servers and HPE StoreVirtual VSA software, this solution can play a pivotal role in developing new capabilities for bankers who want to offer improved customer-facing services.

Adhering to security and compliance needs. The VMware AlwaysOn Digital Workspace solution leverages client virtualization to substantially reduce the attack surface—controlling access to sensitive information on end users' devices as well as desktops common in the traditional banking environment, while keeping data safe in the data center.

With AlwaysOn most of the compute and functionality run within the data center. This approach protects sensitive applications and restricts data by keeping everything centralized within the data center. Organizations can immediately apply software updates and security patches to protect the edge from malware or cyberthreats. This is crucial in eliminating zero-day vulnerabilities. It also provides policy- and role-based access control with a complete audit trail—logging and reporting to help ensure compliance in the U.S. with the Financial Industry Regulatory Authority (FINRA) and the Gramm-Leach-Bliley Act. AlwaysOn also reduces risk by tracking, locking, and remote wiping compromised or lost devices.

VMware Identity Manager, which fully leverages the existing Active Directory environment, provides the core authentication and entitlement functionality. This user authentication process ensures that data never leaves the data center. This capability spans on-premises, remote, and mobile use cases across any device (running Windows, iOS, Android, or OS X). With multiple levels of access controls available, customers can tailor their authentication models in a variety of forms that best suit their business requirements. The AlwaysOn Desktop solution is compatible with most of the top anti-virus protection platforms, such as Trend Micro, McAfee, Symantec, and Sophos. These platforms are capable of running their services in VMware vSphere hypervisors, thereby offloading that task from the virtual desktops, which yields higher capacity and better user experience.

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   Senior Business Strategist
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Addressing agility needs. AlwaysOn also ushers in the ability to leverage rapid deployment through an improved lifecycle management process. The nature of this infrastructure is such that lines of business can deploy apps very quickly, shifting the entire process from a matter of months to only days. The cadence improvement results in a more iterative approach to developing powerful applications for the business.

Empowering needed availability. AlwaysOn provides an architecture that has built-in, ultra-high availability—a true hallmark of the offering. The solution also has essential end-to-end redundancy, meaning if there is an issue within the data center on-premises technology still allows the branch banker to accommodate and deliver the desired customer experience. AlwaysOn also reduces unnecessary outages or disruption in service from failed software updates or device hardware failure. And the branch has continuous service with AlwaysOn Desktop design and multipath access to desktops or workspaces.

Delivering consistency and continuity. Consistency and continuity are key aspects of fully transforming the end-user computing experience at the branch. This workspace provides for a unified experience for the bankers across all devices. Whether it's a tablet, Windows PC, or Mac, bank employees and customers alike always have a consistent experience. This is crucial when leveraging remote or kiosk locations as community-based customer touchpoints.

HPE & VMware: Alliance for enterprise transformation

Drawing on over 16 years of partnership, engineering, and joint investment, the alliance between HPE and VMware provides its clients with comprehensive solutions that benefit from HPE serving as the one end-to-end support provider. As industry leaders, HPE and VMware are constantly collaborating to revolutionize virtualization economics and efficiencies for the client.

For instance, HPE management tools enable the best managed VMware environment, with key integrations for HPE OneView, to allow the richness of management data provided through ESXi.

Together, HPE and VMware have a proven track record of addressing key business challenges for IT organizations by improving cybersecurity, supporting transformation initiatives, lowering cost, and increasing automation.

**For more information, please read our white paper:
HPE Reference Configuration for building a VMware AlwaysOn Digital Workspace with HPE ProLiant DL380 Gen9 servers**

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