

Hosted Virtual Desktop Can Provide an Effective Work Area Recovery Option

Published: 3 September 2013

Analyst(s): Nathan Hill, Kevin Knox, Mark A. Margevicius

Hosted virtual desktop can help IT leaders minimize the impact of business disruption or disaster by delivering services in a flexible manner, independent of physical workspace. When implemented properly for certain cases, HVD transforms traditional approaches to work area recovery plans.

Impacts

- Enhanced requirements for higher levels of workforce resilience will compel IT leaders to consider HVD for select end users.
- Reliance on data center infrastructure and network connectivity may limit IT leaders' use of HVD for work area recovery to select workers, offices and other work area situations.

Recommendations

- Evaluate HVD-based recovery against traditional work area recovery approaches, taking into account time to user productivity, cost to implement and maintain, and level of risk mitigation.
- Deploy HVD only where there is low probability of a single disaster taking out power and network connectivity to both the primary and recovery work areas.
- Quantify the cost associated with end-user downtime to prioritize where HVD recovery might have the greatest impact.
- Include local power availability as a major consideration in assessing the applicability of an HVD continuity solution.

Analysis

The network is the center of the centralized desktop delivery architecture. IT leaders need enough network capacity, performance and high availability, as well as secure access for successful hosted virtual desktop (HVD) deployments (see "Best Use Scenarios for Hosted Virtual Desktops").

HVD offers IT and business leaders tangible benefits, ranging from increased security to a greater ability for teleworkers to do their jobs remotely. HVD also offers:

- Remote access over low-bandwidth networks
- Roaming access support
- Easier patching and software upgrades, compared to PCs
- Lower total cost of ownership (TCO) than PCs
- Centralization of data

One notable, less-well-known HVD benefit involves how the technology improves work area recovery, a key component of business continuity management (BCM). Improved work area recovery is an important ancillary benefit when IT leaders implement the virtual desktop as an alternative to conventional PCs. IT leaders continue to rely heavily on centralized services to improve security, centralize data management and improve availability, especially in the wake of unplanned outages or downtime.

Figure 1. Impacts and Top Recommendations for HVD in Work Area Recovery

Impacts	Top Recommendations
<p>Enhanced requirements for higher levels of workforce resilience will compel IT leaders to consider HVD for select end users.</p>	<ul style="list-style-type: none"> • Evaluate HVD-based recovery against workplace approaches, considering user productivity, cost and risk mitigation. • Quantify the cost associated with end-user downtime to prioritize where HVD recovery would have the greatest impact.
<p>Reliance on data center infrastructure and network connectivity may limit IT leaders' use of HVD for work area recovery to select work area situations.</p>	<ul style="list-style-type: none"> • Assess the benefits of an HVD continuity solution against the risk of no power. • Deploy HVD only where there's low probability of a single disaster taking out power and connectivity to both the primary and recovery work areas.

Source: Gartner (September 2013)

Impacts and Recommendations

Enhanced requirements for higher levels of workforce resilience will compel IT leaders to consider HVD for select end users

For many organizations, IT disaster recovery management (IT DRM) plans are focused primarily on the recovery of data center assets, such as servers and storage, with little emphasis on the recovery

of the end-user computing environment or enablement of users. However, many IT leaders use fixed, shared or mobile work area solutions offered by disaster recovery vendors, or stage alternate sites with space and technology. Each of these approaches typically requires a major effort to rebuild or reconfigure the user computing environment, resulting in days, and even weeks, of lost productivity.

HVD provides IT leaders with the opportunity to keep their users productive, even during certain disaster scenarios. In the wake of an unplanned outage, using HVD as an alternative to conventional PCs provides a compelling case for IT leaders who need a reliable means to keep the business running. In particular, IT leaders can benefit from HVD during a long-term outage.

For example, we have received numerous inquiries from clients in Japan that experienced severe outages during the 2011 earthquake and tsunami. Those clients wanted to discuss HVD for continuity purposes. They stated that they would have benefited from virtual desktops, and would have continued to work productively, had their key end users been able to access an alternate location for work. Even if some central systems were still unavailable, the solution would give tremendous workplace flexibility, allowing organizations to focus on data center recovery versus the complexity of distributed workplaces, as well as on device replacement and reprovisioning.

An entertainment industry client in the Northeast U.S. told us that his company had implemented virtual desktops in 2011. He was happy he did so, as he was well-prepared for the outage that occurred during Hurricane Sandy in 2012. The data center was in a separate geographic location, and was not in the line of impact from Sandy. His program directors could not get to work during the storm, and did their programming from remote hotels and coffee shops using virtual desktops. The net result was zero disruption to business processes. This kind of benefit offers IT leaders enormous justification for including HVD as a business recovery option in their next budget process review.

Although HVD is unlikely to be able to address all disasters for all users and locations, it can be an extremely effective approach for enabling recovery among specific users or groups of users. Organizations should view HVD as a cost-effective alternative in delivering high levels of recovery for critical business functions.

One use case where HVD can aid recovery while minimizing business impact is in financial services, where one firm has explored HVD technology to deliver trader workspaces. As traders directly impact the firm's revenue and margin, theirs is an example of a high-priority role. Using HVD to recover trader access in the event of loss of the trading workspace could provide an effective and efficient piece — focused on prioritizing recovery to a subset of time-critical business users — of the overall business continuity plan.

Recommendations:

- Evaluate HVD-based recovery against traditional workplace recovery approaches, taking into account time to user productivity, cost to implement and maintain, and the level of risk mitigation.

- Quantify the cost associated with end-user downtime to prioritize where HVD recovery would have the greatest impact.
- Use HVD with users where recovery times are critical to the business.

Reliance on data center infrastructure and network connectivity may limit IT leaders' use of HVD for work area recovery to select workers, offices and other work area situations

HVD is an extremely effective tool for effective delivery of an end user's computer environment to a secondary location. The ability to do this is predicated on three requirements that play a major role in determining where and how HVD will provide the greatest benefit:

- **Data center infrastructure** — Because virtual desktops are typically hosted on multiple servers within the enterprise data center, access to these servers and to the data center must be via HVD. Even in situations where virtual desktops may be hosted by a third party or in another data center, users must have access to the servers that deliver the business services and applications they need to perform their jobs. The good news is most enterprises already have some form of IT DRM plan in place that is focused on the recovery of the data center and associated business processes. Recovery of the HVD infrastructure should be included in the IT DRM plan, and prioritized accordingly in a recovery tier, based on level of criticality.
- **Physical work area with network connectivity** — One of the major benefits of HVD is that it doesn't tie a user to a particular location for the desktop environment. However, in the case of an outage or disaster, end users still require a physical work area with network connectivity. This is a major limiting factor to the broad-based deployment of HVD. For example, a disaster that takes out power at a main working location may do the same to surrounding areas, or to alternate locations and homes where users would be forced to work. The same is true for network connectivity. This is why, for many organizations, HVD will be best used as a long-term solution, in case a work location is lost. It also can be used as a technology to support faster recovery in an already established work area recovery plan.
- **Device able to support an HVD session** — Another HVD benefit is the breadth of devices that can be used with HVD — desktops, notebooks, tablets or even smartphones. Usability will vary, however, depending on the specific form factor. Using HVD as a recovery solution requires that an alternative computing device be available during the disaster or downtime to run the virtual desktop. This means an alternate location with devices must be established, while at the same time home PCs and devices are enabled and supported, or alternative devices are provided to each user. It is not sufficient to simply assume all users will have secondary devices they can use to receive their virtual desktop. For example, both a home PC without VPN software that can access the corporate network and a mobile phone with a two-inch screen render the virtual desktop of little value.

The ability to use HVD as a highly available and flexible workspace option for select users and locations is a powerful benefit. Many organizations today engage the services of disaster recovery providers, such as SunGard and Rentsys, to provide workspace recovery solutions including work area, PCs and communications. However, these solutions often take time to coordinate, install and configure, and are unable to meet aggressive RTO targets of fewer than two to three days.

Recommendations:

- Assess the benefits of an HVD continuity solution against the risk of no power.
- Deploy HVD only where there is low probability of a single disaster taking out power and network connectivity to both the primary and recovery work areas.
- Include virtual desktop host servers in Tier 2 or Tier 3 of the recovery tier framework, but ensure they are recovered only after core business systems that they must access are recovered (see "Use IT Disaster Recovery Tiering to Build a Recovery Strategy That Works").

Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

"Best Use Scenarios for Hosted Virtual Desktops"

"Hype Cycle for Business Continuity Management and IT Disaster Recovery Management, 2013"

"Hosted Virtual Desktop Implementations in South Korea Require IT Infrastructure Investment"

"What Can Desktop Virtualization Do for Your Organization?"

"Seven Stages to a Successful Hosted Virtual Desktop Rollout: Stage 1, Evaluate"

"How Hosted Virtual Desktops Impact the Network"

GARTNER HEADQUARTERS**Corporate Headquarters**

56 Top Gallant Road
Stamford, CT 06902-7700
USA
+1 203 964 0096

Regional Headquarters

AUSTRALIA
BRAZIL
JAPAN
UNITED KINGDOM

For a complete list of worldwide locations,
visit <http://www.gartner.com/technology/about.jsp>

© 2013 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner is a registered trademark of Gartner, Inc. or its affiliates. This publication may not be reproduced or distributed in any form without Gartner's prior written permission. If you are authorized to access this publication, your use of it is subject to the [Usage Guidelines for Gartner Services](#) posted on gartner.com. The information contained in this publication has been obtained from sources believed to be reliable. Gartner disclaims all warranties as to the accuracy, completeness or adequacy of such information and shall have no liability for errors, omissions or inadequacies in such information. This publication consists of the opinions of Gartner's research organization and should not be construed as statements of fact. The opinions expressed herein are subject to change without notice. Although Gartner research may include a discussion of related legal issues, Gartner does not provide legal advice or services and its research should not be construed or used as such. Gartner is a public company, and its shareholders may include firms and funds that have financial interests in entities covered in Gartner research. Gartner's Board of Directors may include senior managers of these firms or funds. Gartner research is produced independently by its research organization without input or influence from these firms, funds or their managers. For further information on the independence and integrity of Gartner research, see "[Guiding Principles on Independence and Objectivity](#)."