Gartner Peer Connect Perspectives: Exploring the Utilization of VDI and VPN for Offshore Employees

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Initiatives: Digital Workplace Applications

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COVID-19 pandemic has instigated an anomalous shift in the global working paradigm that has forced organizations to adopt new frameworks to sail through the crisis and transpose conventional boundaries. This has led Peer Connect members to discuss the usage of VDI and VPN for offshore developers.

Overview

A director solicits the Peer Connect members to share their experience regarding the role of VDI and VPN in increasing security and data protection in their organizations. Moreover, he requests them to highlight challenges encountered during the postimplementation phase.

Peer Strategies

Leaders across a broad spectrum of industries focus on providing an environment that is not only secure but also defines the future of work characterized by relinquishing conventional boundaries to impede success. Consequently, different organizations have adopted different technologies for offshore developers to meet the evolving requirements and achieve sustainability. Some have favored the utilization of VDI (on different infrastructures) over VPN whereas others have prioritized a combined usage of VDI and VPN to achieve the organizational goals.
VDI: DaaS vs. On-Premises vs. Cloud

A Peer Connect member, whose organization has been hosting VDI on desktop as a service (DaaS), on-premises and cloud, lays down various advantages and challenges in different types of infrastructures. Accentuating the usage of cloud-based VDI, the contributor mentions, “Cloud VDI was much easier than DaaS and on-premises-based VDI. Every new user was just an API away and could be up and running in less than an hour. It was great to have much tighter control of the data and reduce the potential of data leaking out with USB drives, etc. I’ve been a part of two different cloud VDI projects.”

The organization used VDI, both as DaaS and on-premises, primarily for outside contractors. However, there were several challenges that the contributor encountered with these infrastructures:

- After working optimally, the on-premises VDI gave rise to performance, support and capacity-management-related problems.
- Speed and flexibility issues emerged due to the amalgamation of server gear (which has a different set of procurement processes) and desktop.
- Server hardware lead times required multiple departments to coordinate, leading to expansion lead times in the several month time frames. It took several weeks for the desktop environments to acquire the new hardware.

Another proponent for VDI states that it provides a plethora of advantages for an organization. These include the following:

- Absolute control of data and installed software
- Backups and software updates/upgrades are easier on cloud- or on-premises-hosted VDI.

Focusing his attention toward the challenges, the Peer Connect members highlight, “A drawback is with bandwidth and downtime. If your network has issues, it potentially affects everyone limiting productivity, but a seamless mirror server, although costly, solves that issue. The other issue is that the user must maintain a reliable internet capability, but this is needed whether they use VDI or VPN.”
Lastly, a director sheds light on the utilization of an on-premises VDI solution used for offshore outsourced service contractors access several years ago. Although the initiative proved to be successful to a certain degree, fragility in the infrastructure and inability to support the required activities soon emerged as the major impediments in achieving success. Recently, the contributor's organization has shifted to desktop virtual services for which he adds, “It is working quite well. However, it will be too soon to evaluate the long-term impact. But in the short term, the service is working very well for us.”

Other Challenges

In some organizations, VDI has been the only workspace for all the offshore workforce (including ops and application development) since Y2K. Many of these enterprises do not provide other solutions to these employees. Some of the challenges faced by other Peer Connect members working in these organizations are mentioned below:

- Inability in acquiring the software required for developers on VDI
- Difficulty in building a point of sale (POS) system (at the end of developers) that requires interaction with different devices, including a credit card reader
- Complexity in creating and enforcing least privilege access
- The emergence of latency and performance issues

Restricted VDI and Absence of VPN

An organization’s corporate security policy only allows the offshore resources to leverage a highly restricted VDI. Moreover, native VPN access is not present for these team members. A Peer Connect member working in the organization states, “There are several important aspects to this type of configuration and it would need to correlate to your overall security and risk mitigation strategy. In other words, a multi-layered approach to security with breadth and depth in the implementation and application of security controls across the environment.”
A Mix of VDI and VPN

As explored above, many outlooks expressed precedence of VDI over VPN but some organizations favor the combined utilization of both the technologies in their environment. A vice president of one such organization draws attention toward the presence of infrastructure in which both the technologies are deployed for offshore users. The organization is headed toward deprecation of VPN access technology, except for edge cases. Moreover, it aims to transition to an all-laptop environment and consolidating/closing facilities. These new actions are causing the contributor's enterprise to rethink the office of the future and endpoint kits for users working from home and in the office.

Addressing the thread initiator, the VP suggests, “We are not starting to make developers use VDI, but this technology is one of our key options for this persona.”

Key Take-Aways

- VDI hosted on different infrastructures — cloud, on-premises and DaaS — provides different benefits according to specific requirements and the existing environment (among other factors) of an organization.

- Latency and performance issues remain among the predominant challenges encountered by different organizations.

- Some organizations prioritize the usage of restricted VDI over VPN whereas other organizations focus on the development of an infrastructure characterized by an amalgamation of both the technologies.

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