Digital workplace solutions for the banking sector

Citrix Virtual Apps & Desktops / Citrix DaaS

VS.

UDS Enterprise from Virtual Cable

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INTRODUCTION

This report has been developed from experience in managing desktop virtualization environments using Citrix Virtual Apps & Desktops / Citrix DaaS and Virtual Cable's UDS Enterprise. Its objective is to analyze both solutions, evaluating their suitability for desktop and critical application virtualization in the banking sector.

ANALYSIS

The analysis is organized into three main sections covering the key aspects of the solutions evaluated. The first section addresses the most relevant factors for implementation, such as security, device compatibility and deployment or integration into the infrastructure.

The second section focuses on the essential aspects for the continuous operation of the service (ongoing), including scalability and ease of administration, user experience and overall system performance.

Finally, the third section examines the factors that influence the sustainability and evolution of the product in the long term (continuity), such as technical support, update policy and costs.

IMPLEMENTATION

The Implementation section encompasses the key features to consider when deploying UDS Enterprise or Citrix in a banking environment, where robustness and reliability are essential.

1. Security

Security is a critical aspect in the banking sector, due to the handling of highly confidential information and the need to comply with rigorous regulatory standards. Both systems must be evaluated based on their ability to guarantee data protection, comply with legislation and offer advanced control and security mechanisms.

UDS Enterprise:

- Allows high network segmentation and support for multi-factor authentication (MFA), ensuring that users only access permitted resources.
- Offers native integration with Active Directory (AD) and Lightweight Directory Access Protocol (LDAP), with detailed control of access policies to maintain a secure environment.
- Implements a direct connection with SSL/TLS encryption, reducing the risk of data interception in banking environments.
- Incorporates a secure tunnel that encrypts information from end to end, available in an unlimited way for scalability and high availability at no additional cost.
- Pending official certification from the National Security Scheme (ENS).

Citrix:

- Known for its advanced security features, such as SecureICA, for traffic encryption and data protection.
- Provides additional technologies such as Citrix ADC (formerly NetScaler) to strengthen perimeter security.
- Has specialized solutions to comply with banking regulations such as PCI DSS and GDPR.

Conclusion: UDS Enterprise offers a straightforward approach with robust and flexible security capabilities, especially if a more direct and less expensive integration is required, without the need for investments in additional security infrastructure, as may be the case with Citrix.

2. Compatibility and supported devices

In a banking environment, it is common to find a wide variety of devices and operating systems that require access to virtualized applications, including those dedicated to specific tasks, such as signature pads, specialized printers, and other equipment used in banking transactions. Compatibility and support for these devices are factors to consider when choosing a desktop virtualization solution that ensures smooth and efficient operation across the entire banking ecosystem.

UDS Enterprise:

- Compatible with a wide range of devices and platforms, including Windows, Linux, macOS, Android, iOS, and Chromebook. Communications are via standard protocols, such as RDP, providing fast compatibility capabilities without relying on specific port openings.
- Supports access from mobile devices, which can be useful for certain levels of bank employees.

Citrix:

- It offers seamless integration with multiple devices and is particularly strong in its support for mobile devices but may require additional clients (such as Citrix Receiver) to work on certain platforms. Data transmission is done through ICA ports, which can also be secured.

Conclusion: While both solutions offer support for multiple platforms, UDS Enterprise stands out for its flexibility and simplicity in integrating various devices, allowing a direct connection without the need for additional software. This reduces the complexity of deployment and facilitates faster adoption in heterogeneous environments, such as banking, where a wide variety of devices and operating systems coexist.

3. *Deployment or integration into the infrastructure*

Banks often have highly complex infrastructures, so the ability of a solution to integrate efficiently with existing systems becomes a key factor. A frictionless integration makes it possible to take full advantage of previous investments in technology, minimize operational disruptions and ensure that new tools adapt seamlessly to the workflows and regulatory requirements of the banking environment.

UDS Enterprise:

- Integrates with hypervisors such as VMware vSphere, Microsoft Hyper-V, Nutanix AHV, Proxmox, XenServer/XCP-ng, oVirt/RHEV, among others, and also with cloud platforms such as Google Cloud, AWS or Azure, or any other standards-based platform such as OpenStack, vCloud Directory or Prims Central.
- Supports authenticators such as AD, Azure AD, Radius, LDAP, SAML, eDirectory and even device authentication. Additionally, it integrates multi-factor authentication based on email, OTP (One Token Passsword) Challenge or SMS over HTTP.
- Supports connection protocols such as RDP, RDS, Spice, HPE Anyware (formerly PcoIP), Nice DCV, NX, Nomachine, X2Go, etc.
- Allows integration with existing storage systems and user policies.

Citrix:

- Offers integration with a wide range of hypervisors and cloud environments, but may require more complex configurations and additional customization to accommodate non-Citrix infrastructures.

Conclusion: UDS Enterprise offers broader, simpler, and less costly integration with existing infrastructures, which is especially beneficial for banks looking to minimize operational disruptions during implementation. This ease of integration allows financial institutions to optimize their systems without the need for major modifications, ensuring a faster and more efficient transition to a virtualized workplace environment.

ONGOING SERVICE

The Ongoing Service section covers key features related to the end-user experience, including look and feel, as well as versatility in the administration and ongoing maintenance of the virtualized environment. This section evaluates aspects such as ease of use, performance perceived by users, and the ability of administrators to manage the environment in an efficient and scalable manner, ensuring smooth operation and adaptability to the changing needs of the organization.

1. Scalability and management

The ability to scale the system to support a larger number of users and applications is crucial in a banking environment, where demands can increase rapidly. In addition, it is essential to have an infrastructure powerful enough to guarantee high availability (HA) of all services. This ensures that the bank's critical operations remain uninterrupted, minimizing risks and downtime, which is essential to maintaining trust and security in the financial sector.

UDS Enterprise:

- It offers agile and simple scalability, without complex server infrastructure requirements. It is easy to configure and manage for an IT team with little or a lot of experience in virtualization environments.
- It has a modular architecture that facilitates expansion as the bank's needs grow in an unlimited way and without additional costs.
- Its centralized administration console allows managing both users and applications and connection filtering systems, in an easy and intuitive way.

Citrix:

- It is known for being highly scalable, ideal for large organizations. However, its configuration and administration can be more complex, requiring specialized personnel.
- It has solutions for large deployments, but it entails additional costs as the infrastructure grows.

Conclusion: The ease of use and administration of UDS Enterprise represents a key advantage, as its platform requires less time and fewer specialized personnel for daily management. This simplicity in administration is ideal for banks looking to optimize their operations, reducing the complexity and costs associated with maintaining the virtualized environment, while ensuring a high level of operational efficiency.

2. User experience and performance

Efficient performance and a smooth user experience are essential for banking applications, as any downtime or poor experience can negatively impact daily operations. In an industry where speed and reliability are crucial, ensuring applications run continuously and without interruption is critical to maintaining productivity, customer satisfaction, and operational security.

UDS Enterprise:

- Provides fast access to virtual desktops and applications, with performance optimized for different network scenarios, including low latency.
- Can be optimized to deliver a seamless user experience, without the need to overload the infrastructure, making it suitable for banks with multiple branches.

Citrix:

- It has optimized its technology over the years, so the user experience is generally high quality, especially with graphics-intensive or processing-intensive applications. However, quality can be highly dependent on infrastructure.

Conclusion: UDS Enterprise is easier to configure and adjust, allowing for a seamless experience for bank employees without requiring heavy infrastructure. This feature becomes a significant advantage in distributed environments and in branches, where agility and efficiency are essential to maintain operational efficiency and customer satisfaction. By simplifying implementation and adjustment, UDS Enterprise facilitates rapid adaptation to the changing needs of the banking sector.

CONTINUITY

The Continuity section covers essential features related to the maintenance and post-implementation phase of technologies. This section focuses on aspects such as technical support, regular updates and long-term cost management. Ensuring service continuity is critical to ensure that solutions remain effective and relevant in a constantly evolving banking environment, allowing institutions to quickly adapt to new challenges and maintain a high level of performance and security.

1. Costs

Costs are a crucial factor, especially in the banking sector, where reducing operational and infrastructure expenses is essential without compromising service performance. The ability to implement solutions that optimize financial resources allows financial institutions to improve their profitability and reinvest in critical areas, while ensuring that quality and operational efficiency are maintained throughout their operations.

UDS Enterprise:

- It is a more economical solution than Citrix, with flexible licensing, and in all cases, a lower initial investment in infrastructure.
- Its architecture allows the use of virtual desktops and applications without the need for large hardware and software implementations, which reduces operating costs.

Citrix:

- It is a mature and feature-rich solution, but it has a higher licensing structure and upgrade costs.
- It requires more specialized infrastructure, which often increases implementation and support costs.

Conclusion: UDS Enterprise is a more cost-effective and efficient solution, especially for banking companies looking to minimize both initial investment and maintenance costs. Its streamlined approach allows financial institutions to reduce expenses without sacrificing performance, facilitating better resource allocation and higher long-term profitability. This combination of efficiency and savings makes UDS Enterprise an attractive option for banks looking to remain competitive in an ever-changing environment.

2. Support and updates

Technical support and updates are essential to ensure uninterrupted operation of virtualized applications and desktops. A robust support system allows for rapid resolution of any issues that may arise, while having a system of less frequent and easier-to-apply updates reduces the administration burden. This not only minimizes the risk of service interruptions, but also optimizes the end-user experience and reinforces confidence in the organization's technological infrastructure.

UDS Enterprise:

- It offers direct and personalized technical support, with the option of contracting the 24x7 service. Its updates are less frequent and easier to apply, which reduces the administration burden.

Citrix:

- Provides robust support, but managing updates can be more complex due to the extensive nature of the platform.

Conclusion: For a bank looking for a more agile solution that involves less overhead in terms of upgrades, UDS Enterprise may be a more suitable option. Its streamlined design allows for easier and less frequent upgrades, making the virtualized environment easier to manage. This not only reduces the operational burden on IT staff, but also ensures that daily operations are not disrupted, allowing the bank to focus on its core activities and customer service.

FINAL CONCLUSION

UDS Enterprise offers many advantages for workplace virtualization in the banking environment compared to Citrix. Its simplicity in implementation, lower costs, flexible scalability, and seamless integration with existing infrastructure make it a very attractive option. Although Citrix is a well-established solution with robust performance, UDS Enterprise may be more beneficial for a bank looking to minimize costs and management time without sacrificing security or key functionalities.

All the information gathered can serve as a basis for further analysis with a financial institution's technical team, allowing for a deeper dive into specific needs based on the scope of the project. This will facilitate the identification of the best ways to adapt the product to the unique requirements of each bank, ensuring that its operational and strategic objectives are optimally met.

ABOUT THE AUTHOR

Alejandro Guerra Gutiérrez is a recognized expert in virtualization in the financial sector, with extensive experience as a Citrix systems administrator. His professional background includes the implementation and management of virtualization solutions in various banking institutions, where he has demonstrated a deep understanding of the specific needs of the sector. Alejandro combines his technical expertise with a solid understanding of market trends, allowing him to offer valuable insights into how emerging technologies can optimize operations and improve efficiency. His opinion on UDS Enterprise and its adaptation to the demands of the banking sector will be essential to inform organizations on best practices in workplace virtualization.

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