



Top 5 Bank Leverages Login Enterprise to Drive Architecture and Design Decisions for Brand New VDI Platform

-  Top 5 Bank
-  100,000
-  North America
-  Financial Services

Summary

- User population over 100,000
- Migrated 20K users in a single day without issue
- Continuous Workspace Engineering Approach
- Automated testing at its core
- VDI Planning - new VDI infrastructure

The Challenge

Rolling out a new VDI environment on significantly different technology components

A Top 5 Bank¹ chose Login VSI's flagship product, Login Enterprise, initially to drive architecture and design decisions for a brand-new Virtual Desktop Infrastructure (VDI) environment, leveraging results from a battery of tests conducted to compare alternatives for both the hardware and software layers.

The Bank has delivered VDI based desktops to its user population for years but determined an entire overhaul of the offering was required. User complaints about performance grew, and significant advances in the state of the art of technology were available, along with significant pricing incentives from manufacturers. With a user population over 100,000, cost optimization on a per-user basis was a critical design goal but only when compared to a defined application performance goal. In addition, the Bank wanted to evaluate at least certain Cloud-based offerings that, while currently not as mature in the Bank's opinion, presented compelling economic considerations.

¹Per Wikipedia "List of largest banks in the United States", June 2021

of a discrete set of hardware and software solutions and re-running the same Load Tests against each, the Bank was able to measure the point at which the number of users saturating a system began to result in diminished user experience. In collaboration with the systems' representatives under test, the selling organization suggested various potential optimization strategies. These optimizations ran from essentially simple configuration settings that, when switched, might result in +/- 5% application performance improvement, to ensuring configuration consistency across clustered elements, to ever more dramatic suggestions up to and including "off-script" suggestions that moved away from "Best Practices" but resulted in significant gains. The Bank's representative stated, "It's been exciting to see right up close the kind of effect a simple configuration change can make in terms of the number of users that a system will support at a reasonable user experience."

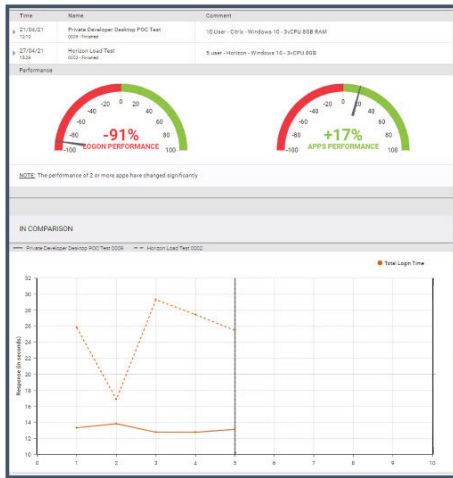
Since Login Enterprise provides a defined, consistent, and constrained test platform, any suggested change could be implemented in the lab and then immediately tested to determine whether it's had a positive or negative result and its relevant contribution. This "A/B" testing ensured every vendor had the opportunity to showcase their technology on-premise, with their experts guiding the optimal deployment for the specific applications the Bank was most focused on, with a consistent way to measure against the competition.

Determining the optimal "per user" cost

With each platform fully exercised, the resulting data could then be compared side by side. Simply because Solution A provided for 500 users per system with acceptable application performance, while Solution B provided 580 users per system, does not mean that Solution B is the best option. Evaluating the "full-stack" of component products in that stack against the total cost to provide it enabled a cost per virtual user session to be determined and thereby compared.

Comparing two or more solutions on a side-by-side basis is critical to understanding which performs better and at what cost if that difference is worth it. On many occasions, as indeed, in this case, Login VSI has seen a "second place" technology solution win over a slightly better performing solution because the incremental difference in performance comes at a dramatically higher per-user cost.

Isolating the best performing selection on a price per user basis allowed the Bank to zero in on their most powerful candidate solution before the subsequent testing.



HORIZON LOAD TEST COMPARED TO PRIVATE DEVELOPER DESKTOP POC TEST

The Solution

Comparing apples to apples

With a diverse user population and a myriad of business-critical applications, the Bank needed a way to develop a testing strategy that would be consistent, fair and highly sensitized to their applications' needs. Accordingly, they chose to develop a set of testing "personas," which consisted of defined detailed workflows through their applications. Leveraging the Login Enterprise testing platform, the Bank established a set of baseline performance metrics by running Load Tests from Login Enterprise against their current, incumbent VDI environment, in essence, to have a starting point from which to measure. "At our size, the vendors involved will go around the evaluation team to executives and claim they weren't given a fair shot. It's essential to have a uniform and consistent set of tests, so just in that regard, Login Enterprise has been hugely valuable," commented the Product Owner for Virtual Computing.

By building out consecutive target environments comprised

Fully loaded production equivalent experience

While a subset of critical applications can be used to baseline performance and enable comparative measurements across a range of solutions, before moving the chosen solution into Production, the Bank wanted to understand what would happen the morning of “Go Live.” The client commented, “Large migration projects often stall on the ‘crisis of confidence’ that as bad as things are on the current solution, if we roll out the new one and it fails, we’ve taken the entire business, or a large chunk of it, offline.” As closely as possible, determining what will happen before deployment is critical to dispelling the crisis of confidence, and only the results of a rigorous testing campaign can provide that.

In the case of VDI, this involves building out the complete stack, most importantly including the Security layer, then testing individual applications, testing the entire “release” image, and finally doing so under scale and soak conditions. Once the Bank had completed these tests, they felt confident in the deployment, and the first phase of cutover migrated 20,000 users in a single day without issue.

The Results

Better user experience, optimized cost per user, set up for future-proofing

There’s no doubt that the VDI market has evolved significantly in the past five years and continues to do so at break-neck speed. This bank chose to undertake an ambitious re-evaluation of their entire technology stack for VDI and ultimately decided to change their underlying hardware provider and software (virtualization layer) provider at the same time. Add to this newly updated version of Windows presented during the evaluation and a couple of business-critical application updates and represented a massive change in the VDI offering. The end-users primary concern is their experience when they sit at their terminal and want to work. Based on the feedback received, which was universally positive, the project was deemed a significant success.

By allowing all the technology providers to participate in the evaluation process and running consistent tests repeatedly to evaluate suggested modifications, any suggestions of favoritism were dissipated. The Bank was able to determine the optimal cost per user at a defined “acceptable” user experience and then zero in on the Procurement process to further optimize the deal dynamics by specifying the target per-user price and showing the providers how they could hit it.

Finally, given the baseline data the Bank had developed around the prior environment and now their chosen new stack, they can continue to use the same test capabilities to benchmark against up-and-coming Cloud based offerings periodically. As the VDI environment sustains the assault of ongoing changes driven by the pace of updates from all the suppliers in the stack, the Bank transitions to adopt a Continuous Workspace Engineering approach. Offering rigorous, automated testing at its core, all changes are tested thoroughly to ensure they don’t negatively impact user experience before deployment.



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About Login VSI

Login VSI maximizes the end-user experience for all digital workspaces. Login Enterprise is an automated testing platform that predicts performance, ensures business continuity and reduces risk.