

First Step for Your Virtual Desktop Initiative: Conduct a Proof-of-Concept

Is your organization looking to break-away from the old ways of deploying desktops? If so, how do you validate that a new approach is better, more efficient and overcomes past challenges? The answer: a Proof-of-Concept. This is the way to prove out the technology, gather intelligence about your user base, application usage, and network. It will require you to define requirements for success, those specific requirements will, of course, be different for each situation and organization. We've seen where some organizations want to validate how easily a Windows desktop can be delivered to worldwide users on older hardware while others wanted to see how they can make application updates occur more frequently and with less effort. The challenges will be small and large, but a methodical approach intelligence gathering and to a proof-of-concept will make resolving these challenges attainable.

It's been said many times in the past that there are no IT projects, only business projects with IT components. We can't stress enough that being able to fully identify what the business is trying to accomplish is the first, and most critical, aspect of the proof-of-concept. Without fully understanding the goals, the test will result in no direction and no observable outcome. Each criterion for success should be concise and well understood so there is no disagreement as to whether the solution meets the needs of the business. The success criteria should also be identified at the onset of the proof-of-concept, as the criteria could have an impact on the overall architecture.

As you move through the planning of the proof-of-concept, there needs to be an understanding of the overall goals and to verify all pieces will be ready when needed. Below is a checklist that we suggest you use to make sure you understand the goals and that you have all the pieces necessary when needed:

Item	Completed	Notes
Success Criteria Defined		Success criteria should be specific, measurable, achievable, realistic and timely
Success Criteria Approved by Stakeholders and Project Sponsors		It is important to have a signed statement as to the agreement of the success criteria. As time passes, the criterion has a tendency to fluctuate and increases the difficulty in determining success.
People Available		<p>To implement a virtual desktop environment in a test environment, different groups of individuals will be needed to understand the components and potential integration opportunities. These individuals are:</p> <ul style="list-style-type: none"> • Desktop operations manager • Network manager • Application manager • Active Directory manager
Equipment Received		Without the correct hardware, the PoC will not be capable of validating the design. Before the PoC can commence, all hardware must be ready, which includes desktop appliances, hypervisor servers, storage, etc.
Software Acquired		Without the software, the PoC cannot commence. Work with your preferred vendor to get this in place
Licenses Acquired		In order to complete the PoC, software licenses will be required. It is recommended that you have a partner be involved who can identify the required number and provide in time to start the PoC.

Next step is to create your critical success factors based on user experience, supportability, and technical components. We suggest using this matrix for your User Experience CSF (Critical Success Factors) determination:

Category		Criteria
Graphics	High	While working with two dimensional graphics applications, users should experience smooth and responsive functionality within the application on a LAN and WAN environment.
USB Storage	High	Users should be able to access USB storage devices from within their virtual desktop without requiring a logoff/logon.
Printers	High	Users should be able to print to their local printers from within their virtual desktop.
Visual	High	Users should have the ability to control screen resolution, modify screen size for their virtual desktop.
User Roaming	High	Users should be able to seamlessly move an active virtual desktop between physical systems.
Personalization	High	Users should be able to personalize their virtual desktop environment with application configurations, environment settings and user preferences. The personalization settings should follow the user from system-to-system.
Remote Access	High	Users should be able to get access to their virtual desktop securely and over remote connections without relying on a VPN client on the end-point.
Application Delivery	High	Users should only see the applications they have been assigned.
Multi-monitor Support	Medium	Users should be able to seamlessly span the virtual desktop across multiple monitors without requiring special configuration on the end-point.
Video	Medium	Users should be able to view and listen to video and audio content with no significant delays, freezing, or pixilation when playing Windows media in a LAN o WAN environment.
Flash	Low	Users should be able to view and listen to video and audio content with no significant delays, freezing, or pixilation when viewing Adobe Flash media in a LAN/WAN environment.

The solution must not take away functionality the user is accustomed to using now on their physical workstation. This means functionality like graphical update speed, video playback and desktop customizations (if you deem necessary) must be part of the solution and perform in many different types of environments (devices, networks, locations, etc).

From a supportability perspective, we suggest using this matrix:

Category	Criticality	Criteria
Redundancy	High	Users should be able to continue working within their virtual desktop even if there is a failure of a component within the environment.
Storage Requirements	High	Storage requirements should be kept to a minimum by standardizing on a single or small number of virtual desktop images.
Desktop Allocation	High	Adding new virtual desktops into the environment should be capable of being accomplished in a matter of minutes while using a single console.
Patch Management	High	Updating the operating system with the latest security patches should only be required on a single (or small number of) image(s). Those changes should be propagated to all users' virtual desktops without requiring touching each virtual desktop.

Michael Keen, Enterprise Analyst at DABCC.com says that, "An important factor with virtual desktop solutions and their viability for a production rollout comes down to how easy it is to support the environment. This isn't so much a user concern as it is an administrative concern." Most environments contain many more workstations than servers. By virtualizing and moving the desktops into the data center, those desktops must also be managed along with the virtual desktop infrastructure. Items like patch management, storage requirements, etc must be assessed. If support of the virtual desktops and virtual desktop infrastructure is challenging during a proof-of-concept, the challenges will exponentially increase when a production rollout occurs if the items are not solved.

The two main components of the technical criteria are:

Category	Criticality	Criteria
End-Points	High	The solution must be able to support multiple types end-points users have in the office and at home including: <ul style="list-style-type: none">• Windows XP• Linux• Windows 7
Hypervisor	High	The solution must be open allowing it to function with all hypervisors/platforms.

From a completely technical view of the solution, your choice in virtual desktop solutions must be able to deliver virtual desktops to any number of end-points. This is especially critical if you want your environment to allow secure, remote access to the virtual desktops by employees working from home or from any remote location.

A Proof-of-Concept and intelligence gathering are the first steps. The next step immediately following will be the planning and design phase whereby eight different topic areas will be covered in depth to determine the best solution design. When it comes to the Proof-of-Concept, addressing the critical success factors and making sure your "ducks are in a row" before your Proof-of-Concept kicks off you can avoid confusion and failure and ensure success.

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