

user environment management and virtual desktops

WHAT IS DESKTOP VIRTUALIZATION?

Desktop virtualization enables organizations to host individual desktops inside virtual machines running in a data center. Users access the desktops remotely from a PC or a thin client. By running all desktops within a data center, organizations now have central control of operating systems and applications.

TYPES AND CHALLENGES OF DESKTOP VIRTUALIZATION

Typical first stage desktop virtualization takes an existing physical desktop - referred to here as an 'image' - and migrates this to a datacenter. While this approach is relatively easy, it does not necessarily provide a low cost, easy to manage environment when scaled out. The management of individual desktops has simply moved from the user to the datacenter. As more desktops are added, storage and infrastructure costs increase since individual desktops are now hosted centrally, each one typically several gigabytes in size. Finally, IT also has to maintain each desktop with tasks such as patching and application updating.

In order to reduce storage costs and maintenance, desktop images can be 'pooled'; essentially taking a single desktop and using this as a standard for similar types of users. Whilst this reduces the management, infrastructure and storage overhead, it also tends to reduce the end user experience, since all users are now working from a standard desktop that is not personal to them in the way the physical PC was.

Successful desktop virtualization reduces the high cost of ownership and security risks of physical PCs, enables a tangible reduction in desktop management through standardization and optimizes the storage and infrastructure required.

However, these benefits can only be realized if the user accepts their environment - and users will accept nothing less than the physical PC experience they have been used to. This is where user environment management comes in.

user environment management

User environment management personalizes standardized corporate desktops by treating user information as a separate layer of the desktop. This layer is applied to the desktop as and when needed and is accessible in any environment - physical or virtual. User environment management involves the abstraction of user data from the desktop, managing this data independently of the user environment and using it to personalize a standard image on-demand. So how can this enable a successful virtual desktop implementation?

Three best practices are enabled though the inclusion of user environment management in a virtual desktop implementation.

1. Migration of users to a virtual environment
2. Dynamic personalization of standard images
3. Dynamic desktop assembly

Implementation of these three best practices will yield an effective, scalable, minimal cost and most importantly, an **accepted** virtual desktop environment.

VIRTUAL DESKTOP AND USER ENVIRONMENT MANAGEMENT BEST PRACTICES

1. MIGRATING USERS TO THE VIRTUAL DESKTOP

The transition from PC to virtual desktop should not be a painful, expensive exercise. Migration opens up opportunities to standardize the corporate desktop, thus reducing management overhead. However, moving the user from a fully personalized, familiar PC to a plain, vanilla, standard virtual desktop is sure to be met with resistance. With user environment management, user data within the physical PC is first identified, decoupled and moved to a central store. The user can then be moved to a standardized virtual desktop. When the user accesses this standard image, the user data extracted from their PC is dynamically applied, recreating the PC environment. Personalization changes are persisted between virtual desktop sessions ensuring the user always has a familiar, personal experience.



Alternatively the whole desktop, including the embedded user data could be copied over to a virtual server. The user would have the same experience as the PC, however this desktop is now unique to the user and cannot be standardized. Scaling this up to many users seems improbable in terms of management and storage. Another alternative would be to delete the user personality and have the user re-personalize their desktop on access. If standard images are used, the user would have to re-personalize their desktop each time it is accessed - not ideal for user acceptance.

2. PERSONALIZING STANDARDIZED DESKTOPS

One of the most significant benefits of desktop virtualization is the opportunity to standardize desktop images. Standardization reduces management costs, increases business agility and minimizes storage requirements. However standardized desktops are impersonal to a user and are therefore subject to low user adoption. User environment management takes a standardized desktop and applies all aspects of the user to that desktop **when the user accesses it**. Such aspects of the user not only include personal preferences, such as desktop look and feel, but also company-defined settings such as drive mappings, default printer and application access. This Policy and Personalization data is used in combination to turn a standard desktop into a personal, compliant and managed user environment.

Alternatively the standard desktop could be personalized using combinations of mandatory, roaming and local profiles. While these methods can achieve some level of personalization, they are notoriously difficult to maintain and can be subject to instability. Latency resulting in slow logon times could also result from the use of profiles, since lengthy logon scripts must be executed sequentially in order to perform the necessary personalization process.

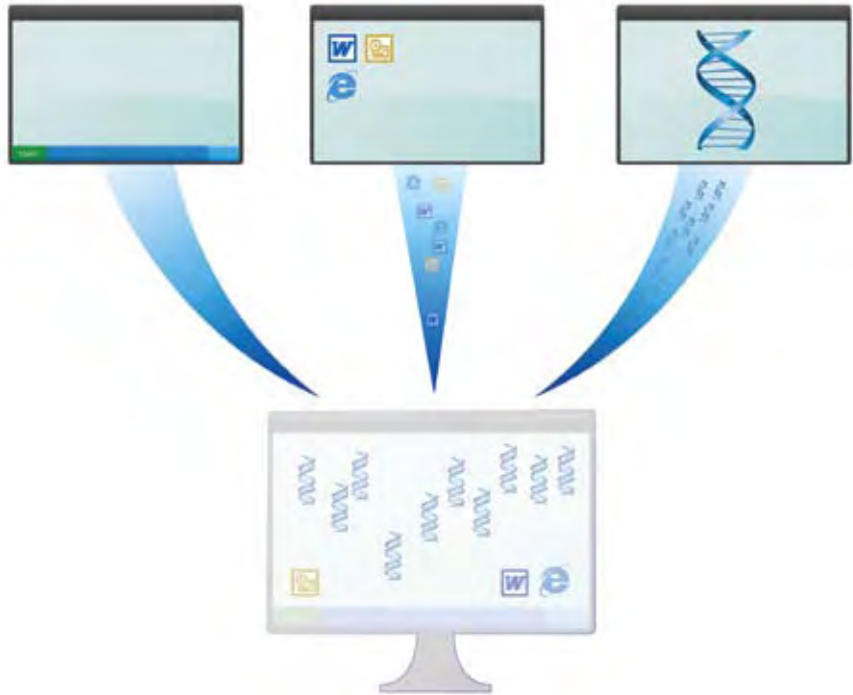


3. DYNAMIC DESKTOP ASSEMBLY

Although virtual desktops typically have pre-installed applications as part of the image, further reductions in management can be realized by separating application from operating system delivery. Applications can then be streamed or published into virtual desktops as required, enabling operating system and applications to be managed separately and assembled to form a desktop when required.

User environment management participates in this assembly process by applying user data as the desktop is created. This ensures the user receives a PC experience despite their desktop being 'constructed' using various delivery mechanisms and technologies. Such mechanisms include published, streamed, locally installed applications as well as provisioned operating systems.

An alternative solution would be to restrict the combination of delivery technologies utilized in a VDI solution and stay with a standard desktop image with locally-installed applications. This, however, closes the door to best of breed technologies, typically locking in one provider and increasing risk. Scalability could also pose a challenge as combinations of applications required in standardized desktops results in increasing numbers of standard images - the opposite of what standardization is meant to achieve.



AppSense Management Suite is the first enterprise-class user environment management solution for virtual desktops. From initial desktop setup, to ensuring consistency in personal settings, AppSense Management Suite ensures employees receive a predictable, compliant and responsive working experience at all times.

AppSense Management Suite consists of four fully integrated components that provide user data migration and dynamic personalization capabilities, as well as application and resource entitlement, and can be used with multiple desktop delivery mechanisms including dynamically-assembled desktops.

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AppSense[®] ENVIRONMENT MANAGER
personalization and policy management
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AppSense[®] APPLICATION MANAGER
application entitlement

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AppSense[®] PERFORMANCE MANAGER
resource entitlement
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