Bridging the virtualization gap

The benefits of virtualization

The proven benefits of building and delivering an IT infrastructure in a fraction of the time and costs of physical IT Infrastructure environments lead to a decrease in capital expenditure and a huge increase in the Return of Investment for companies whom have implemented virtualization solutions into their organizations.

- Reduce imaging cost dramatically
- Applications available in seconds
- Consistency across all Virtual and Physical desktop platforms
- Personalized Virtual Workspace environments
- Centralized and real-time control

The benefits of Virtualization

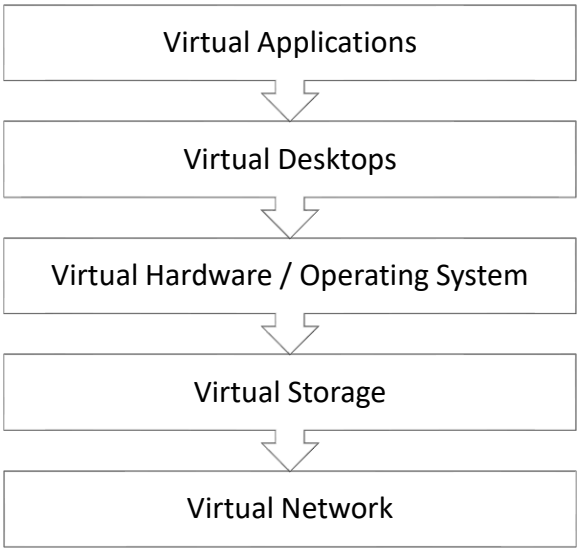
In our whitepaper which described the trends of the Consumerization of IT, Virtualization was seen as one of the most important drivers of COIT. It has proven its usefulness and comes in many flavors these days:

Application virtualization, Server virtualization, Desktop Virtualization, Storage Virtualization and many more.

The Virtualization Stack

Virtualization, in its roots, has been around for many decades starting with the mainframes in the late 1960's, but only in the last decade virtualization has been broadly accepted and became mainstream.

The best-known virtualization technology "Virtual OS" was actually popularized in the last 5 years.



At the same time the virtualization reference model called the "Virtualization Stack" (see picture 1) started to evolve into one of the preeminent known architecture models for our current modern IT infrastructure.

In essence, the Virtualization Stack allows us to decouple the different infrastructure layers used to create the fundament of the IT infrastructure for organizations. In the past, all IT layers were bound together and were dependent on the weakest link in the chain. Because of virtualization technologies we can now add or remove IT layers without jeopardizing the total IT infrastructure framework we have built for our organizations. This virtualization stack is also becoming one of the essential pillars for the IT trend of Cloud Computing (being Private/Public or Hybrid Clouds). We will cover the Cloud Computing's ins and outs in one of our future whitepapers.

The remaining challenge of user flexibility

A lot has been written on virtualization in the last couple of years and most layers of the virtualization stack have been covered extensively. The benefits of building and delivering virtualized infrastructures in a fraction of the time and costs of physical environments like a decrease in capital expenditure, increase of Return of Investment and agility of the organizations are proven.

However, two profound challenges still remain in the top layers of the virtualization stack: how do users get easy access to their applications and how do they get their personal workspace based on their privileges and location. This is better known as the "Context awareness" of applications and workspaces. Scense has been involved since the early days of virtualization to find a solution for the above challenges.

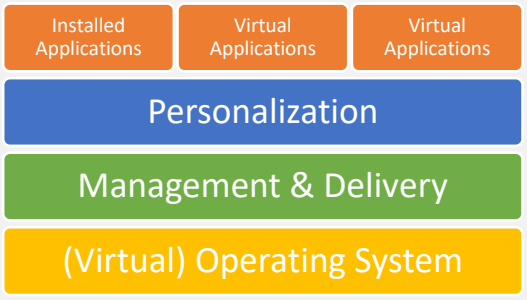
Applications depend on the user needs

Corporate users are demanding more and more from their IT department, up to the point that they are the deciding factor of which applications they need, based on the functionality needed to get their jobs done. Users expect to be able to pick and choose the applications and add and remove applications on the fly, just like the experience of going to Google and choosing the applications you want or adding applications from a store instantly with smart phones.

This is something - based on the "Consumerization of IT trend" we have covered in an earlier whitepaper-, most IT departments will need to get adapted to. Up till the recent past IT departments were used to maintain and decide which and what type of applications would be used within an organization. By utilizing application virtualization, IT departments are enabled with the flexibility to deliver applications on demand to their ever demanding users.

In an ideal world all applications would be virtualized, however the reality of today is that a maximum of 70% virtualization can be achieved with the current application virtualization solutions. Some applications depend on others to function, while others are (still) not suitable to be virtualized. These challenges can outweigh the benefits of Virtual applications for some organizations.

The ultimate mix of installed and virtual applications



Even before application virtualization was broadly accepted, Scense recognized the benefits and was involved to find a solution for the above challenges. Due to the extensive research & development and working jointly with all of the major application virtualization vendors, Scense has been able to overcome these challenges already in an early stage. Scense User Workspace Management allows applications (virtualized and not virtualized) to be delivered from the same central management console while retaining the native application virtualization formats. The Scense Intelligent Client will automatically

determine if a user will get a virtualized or non-virtualized application delivered to their personalized workspace, based on the user's credentials and location.

At the same time the interoperability between virtualized applications becomes an easy to configure process for the IT department via the Scense Management Console. Even virtual applications from different technologies and virtual with installed applications will be allowed to communicate with each other.

Personalization is a must in a virtualized environment

With the popularization of Server Based Computing and the evolution into Hosted Desktop or Virtual Desktop Infrastructure (VDI), the market has taken the next step in decoupling the actual client processing from its physical location.

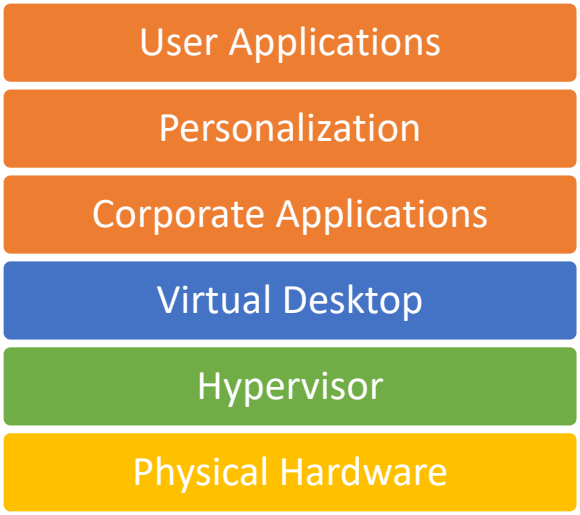
The major drivers behind this part of the virtualization stack are the need for security, compliance and a uniform desktop delivery, all independent from the type of device being used at the client side.

The realization of a Virtual Desktop Infrastructure can be achieved with today's current solutions. But the consistent user experience, including the users' personalized applications and workspace settings across all virtual environments, can become a cumbersome exercise for IT departments.

A workaround IT Departments often use these days is to create a virtual image per user (or user group) and pre-populate the needed applications into the image. Although this may solve some of the challenges for the users, the IT Department will face a tremendous increase of images. This can lead to investing in expensive additional storage and the necessity to manage hundreds (or thousands) of additional images (the so called image sprawl). Furthermore the users expect to have the freedom to use their personal installed applications in the same way they would on their own local devices.

The Personalized Workspace in a Virtual world

Scense supports any user applications next to any corporate application (virtual or physical) in a Virtual Desktop environment, while applying the application's and user's context settings on demand.

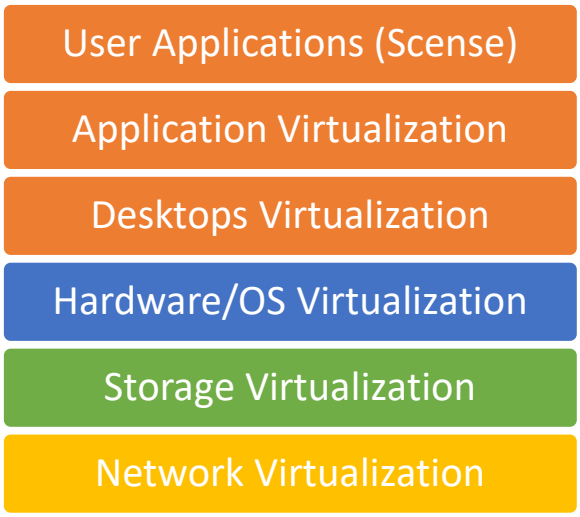


Depending on the location and the user credentials, users will receive a consistent and personalized experience. Based on the unique Scense "Live Profiles" technology, the settings will even follow the user independent from the Virtual desktop environment (for example onto a physical device). Scense enables them to work from a Virtual Desktop or a Physical Desktop, all with the same functionality and applications (personal or corporate) personalized to their needs.

Due to the fact that the contextual settings will be applied on demand, there will be no need to create separate images per user and/or application set. This will reduce the number of images and helps the IT Department to stay firmly in control.

Context Virtualization bridges the virtualization gap

To enable and utilize all the power of today's virtualization technologies, it is a must that the above challenges will be solved. While delivering a total Workspace Management solution, Scense has solved these specific challenges in virtualization and allows organizations to utilize the best of their investments.



This can be recapitulated into what we call "Context Virtualization", the missing link in virtualization to enable the users and the IT Department to get the maximum out of their virtualization investments. Context Virtualization is the separation of the user's context (how do users get easy access to their applications and how do they get their personal workspace based on their privileges and location) from the personalization settings, application settings and workspace settings (sometimes referred to as user virtualization) from the devices and/or underlying OS.

This allows for a transformation of a static virtualization stack into a dynamic, adaptive and secure personalized IT experience. With this, Scense will enable the Virtualization stack to realize its maximum capabilities and allows the IT Departments to utilize the full potential for their organizations and users.

About Appixoft

Through our high-end User Workspace Management solution Scense, we deliver dynamic applications in a personalized workspace to many thousands of satisfied users worldwide. Scense plays a strategic role in delivering functionality and real-time access to the right persons, in time, wherever they happen to be. By doing so, we enable organizations to deliver business-critical applications and information quickly and efficiently. We work towards the ultimate productivity and user experience for both end users and administrators. And with a great sense of honesty: Appixoft provides, Scense delivers!

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