Learning Series

ThinManager Versus The Competition

A comparison in the thin client management market.

Customers often ask us to provide some sort of comparison between ThinManager and other process management tools such as Citrix, VMware View, or Wyse. From a technological standpoint, it is easy to compare basic functions or show the end result of deploying different tools in an automated industrial environment. But more often than not, there isn't an easy OVERALL comparison as ThinManager is deployed to augment and improve the operational efficiency of other management systems, not replace them. At its core, ThinManager is designed to manage clients and their connection to the server, filling a very important need not addressed by most "system management" platforms.

With that in mind, we wanted to highlight what we believe are the product fundamentals that are needed in most manufacturing environments, why they are needed, and how ThinManager provides features to address those needs regardless of the other management tools on the market that may or may not already be in use in your facility.

THINMANAGER & THINMANAGER READY THIN CLIENTS VERSUS PCS:

The primary focus of ACP has always been to get PC's off the shop/plant floor. These devices bring several problems with them, and converting to a ThinManager Platform provides an efficient and cost effective method to eliminate them. Because of the harsh environment caused by factors such as heat, cold, vibration or airborne particulates, PCs are ill suited for the Industrial Automation environment. Due to these environmental factors, their shortened life span is a drain on both equipment budgets and system resources that must be allocated to continuously replacing and updating the hardware as well as the Operating System.

Additional problems caused by using PC's are related directly to the fact that they were developed to be personal computers. As such, their system design is not optimized to be used in an environment where security and longevity is more important than their ability to be a "stand alone' computing resource. Internal storage devices (i.e. Hard Disk Drive, Solid State Drive, Flash Disk) have a propensity to fail, which is not an option in an industrial environment where data is constantly generated and must be securely stored.

With ThinManager, you can use thin clients that have no storage media. There is no drive that will fail at the client, no extra maintenance, security, or updates that are needed at the client. Everything is performed via the ThinManager interface to

the Platform. Of course, the ThinManager clients do have an OS, but it is delivered to each client when the client boots up and the client receives the most up to date version of the OS and configuration at that time.

THINMANAGER AGILITY VERSUS STATIC SYSTEM IDEOLOGY:

Another big focus at ACP is to provide flexibility, which is a hallmark of the ThinManager platform. You can use sources like Virtual Machines, Terminal Servers, IP Camera's, or thin clients. These devices can be used to deliver individual user sessions and data to any station or display device throughout your facility. We also have flexibility in the types of thin clients you can use. While ThinManager is designed to operate with the industrial strength single and multi-monitor ThinManager ready thin clients manufactured by our hardware partners, it has the ability to operate with new industrial clients, new office grade thin clients, iOS and Android devices, or even the dreaded PC itself.

In addition to the many hardware devices ThinManager integrates with, the platform itself is designed to allow for configurable visualization and delivery options. You can have several sessions from one source displayed at a specific thin client, or you can deliver sessions from multiple sources. These sessions can also be delivered from a variety of source types, all at the same time.

ThinManager also allows you to have several sessions tiled onto one screen, as well as the ability to use a menu system to select the individual session you want to view. You can also make use of the Multi-Monitor feature and display up to five monitors at a single thin client using just one keyboard and mouse. And for those looking to reduce hardware cost, ThinManager will allow you to have five users with individual input devices accessing their individual sessions from a single client.

Features and special abilities can be added to the thin clients via our Module system as simply as adding a driver to a PC. You can integrate your applications into the system, and provide direct feedback from the thin client into your application. Additionally, you can configure all of the sessions to be assigned to a single thin client, or to an individual user so they are accessible by that user from any client in your facility.

Now that we have discussed how our ThinManager platform can be used in any environment with multiple input devices in a wide array of customizable configurations and levels of control, we will review how it stacks up with the competition.

THINMANAGER COMPARISON TO CITRIX:

Historically, Citrix has been viewed as the primary contender to the ThinManager platform because they offer a "thin client solution" and a multiple monitor configuration for displaying applications. But their product does not provide the flexibility to use true thin clients. Thin clients in a Citrix environment require an operating system and storage on the device. The configuration of what each individual client will connect to is stored on the client. Because of that, each device will require time to manage, configure, and repair through its life cycle, essentially creating the same problem posed by PCs.

In a ThinManager environment, you configure all the clients through ThinManager at the server. In a Citrix environment, you configure individual clients, as well as their individual connections to the server at the client level. This archaic architecture is required because in a Citrix environment the end device needs an Operating System to run their code.

In comparison, ThinManager will enable the client BIOS, or allow the server to communicate with the client via PXE boot to deliver a functional OS to the client. This totally eliminates the need for an OS, and removes an additional potential point of failure in your system architecture.

Citrix also relies on ICA (which is also supported by ThinManager), and their Xen virtualization platform. Your Citrix solution will require you to work with a complicated server configuration tool, in addition to Xen for Virtualization, and thin clients that have an OS and storage media. If you intend on using a touch screen, it will likely not be possible without a full desktop OS and a driver. This makes Citrix more of an application or virtualization delivery system, and not a thin client management tool. In a large-scale repetitive deployment that only requires delivery of a single desktop to every one of its users, Citrix would work well. However, in a custom environment such as those found in the Industrial Automation sector, it is very restrictive.

THINMANAGER COMPARISON TO VMWARE:

VMware View is a product that ThinManager is seeing more and more lately due to the global push towards virtualization and their recent move into client management market. It fills an obvious need for IT departments that are using their VMware vSphere systems to enable a VDI solution. But from a hardware integration standpoint, VMware has the same major issue as Citrix; their system can only be used with hardware utilizing an OS and the supported enabling proprietary software from VMware. Adding touch screen drives or using other sources for your data

will not be possible. This solution is another one that will work well for a large IT department that only wants to give their users a desktop, and is not concerned about device failure or maintenance.

VMware View has one feature that is relatively unique, and that is the ability to use a template image and have an instance of that template created on demand, rather than needing to pre-create and store your individual workstation images. This is a valuable feature to those unable to use Terminal Services since a Terminal Server provides the same ability. If your IT department is pushing towards a VMware View solution, look at your environment and the specifications for the thin clients available. You should also determine if you are going to be able to provide the information to your operators that is delivered by external devices such as IP Camera's or a local scanner.

If your IT group is delivering individual VM images to users, but has the ability to use Terminal Services, the latter will be easier to maintain via a single Terminal Server as opposed to multiple VMware workstation images. As with Citrix, VMware View is not a thin client management tool. It enables a source for a thin client, but requires you to configure and maintain each individual thin client separately.

THINMANAGER COMPARISON TO DELL WYSE:

The Dell purchase of Wyse has created a confusing platform. They can manufacture hardware, offer DaaS, and are trying to push into the "cloud" arena. But for the purpose of comparison, we will concentrate on their similarity as a platform to ThinManager. Wyse (prior to and now at Dell,) has excelled at creating a system whose only consistent trademark has been change. Originally, it operated similarly to Citrix, except it only provided the thin clients as hardware that still required an operating system and software to function with all configuration done at the client. There were/are some tools to be able to collect and store these configurations as a backup, but it still did not offer a centralized management solution.

Today, there are some versions of the clients and software that operate in a way similar to ThinManager, in that they need no storage, boot over the network, and provide connections to virtual or terminal server sessions. There is also support for multiple displays and some touch screen integration. However, they do not offer all of these functions as a single solution.

Additionally, there is only one supplier of hardware for the tool, and that is Dell Wyse. If you have an environment with mixed hardware suppliers, which is generally what you will find in any facility that has been operating for a time, then their platform is not an option unless you invest in a complete facility-wide hardware purchase.

The ThinManager take on Dell Wyse, is that it is a great office grade hardware provider. But if you have any of this hardware in your industrial facility, you should take out any storage media that comes with them, configure their BIOS to boot over the network, and let ThinManager do the rest.

THE THINMANAGER CONCLUSION:

Citrix, VMware View, and Dell Wyse, are all providing high quality services to their customers. In the view of ACP though, none of them are offering a complete, efficient solution. Our ThinManager Platform provides this for the more discerning IT and Engineering departments who require more flexibility, security, and consistent productivity to manage and drive their demanding processes.

Other platforms are designed to theoretically provide an answer for the bulk of businesses across many industry verticals that are seemingly unconcerned about the real troubles on the IT front, or the practical application of methods to eliminate those troubles before they happen. ThinManager is designed for those who understand that true operational efficiency is achieved by reducing the time, energy, and money spent on managing the resources used to monitor their processes by eliminating the need to maintain Operating Systems and configurations of end user client devices.

	Citrix	VMware View	Dell Wyse	ThinManager
Supports thin clients with NO OS or storage media	No	No	Yes	**Yes**
Supports multiple sources of data, including Terminal Servers, Virtualization, IP Camera's, and other Thin Clients	No	No	No	**Yes**
Supports Multiple hardware types and suppliers, including industrial devices with touch screens and no OS installed	No	No	No	**Yes**
Centralized management of Client content and setup for a wide range of device types	No	No	No	**Yes**
Ability to assign content from multiple sources to a User rather than just a thin client device	No	No	No	**Yes**
Over a decade of doing business with Industrial thin client systems	No	No	No	**Yes**
Ability to update client side OS and configuration by a simple reboot	No	No	No	**Yes**

Thindustrial will allow ACP Customers and Partners to optimize implementation of ThinManager's state-of-the-art industrial visualization and thin client management platform. Learn how robust thin client networks can take advantage of powerful features like MultiSession, MultiMonitor, IP cameras, mobile tablets, industrial cloud services and more.

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