



ThinManager

Basic ThinManager

ACP

www.thinmanager.com

Agenda

- What is ThinManager?
- How Does it Work?
- Power & Ease Feature Set
- Why Use ThinManager?
- ActiveX for Advanced Functions

What is ThinManager?



ThinManager Mission

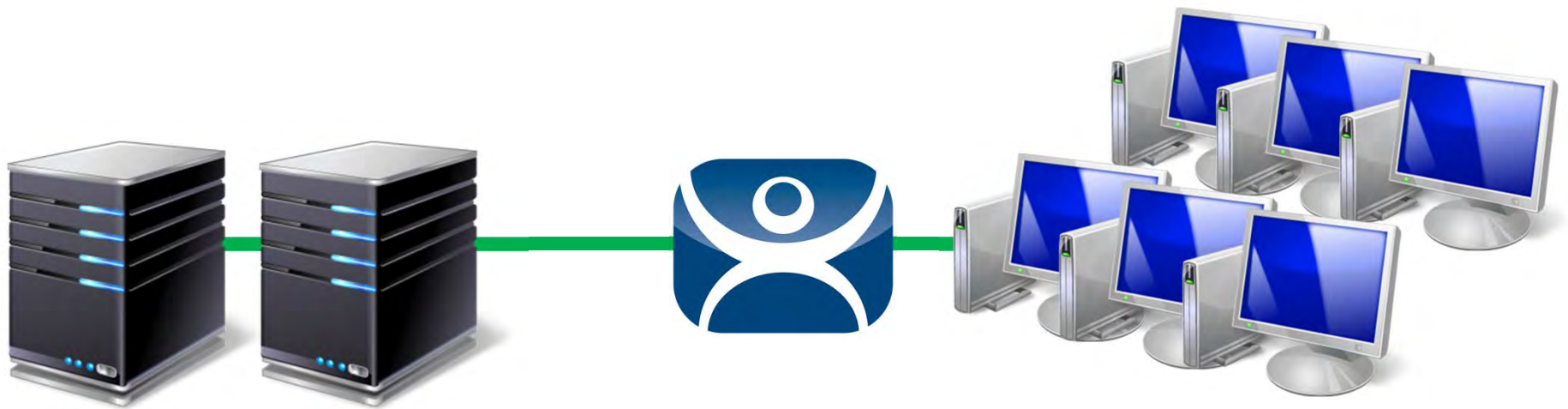
ThinManager ensures your applications are

- Securely available
- To the people that need them
- When they need them
- Regardless of system failures

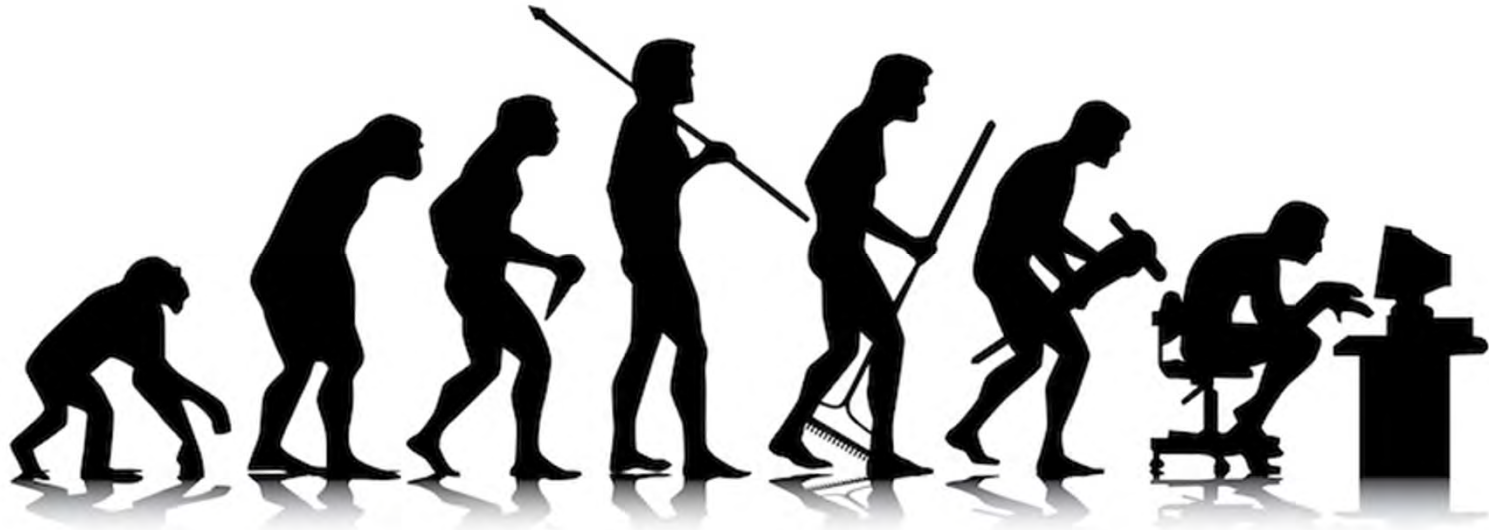


ThinManager is...

- The Central Management Tool for Content Delivery
- Configured, not Coded



The Evolution of Computing



Phase 1

Mainframes

- + Centralized Control
- + Centralized Management



Phase 1

Mainframes

- + Centralized Control
- + Centralized Management
- Limited Apps



Phase 2

Personal Computers

- + Unlimited Apps
- + Mouse, Icons, and Graphic interface



Phase 2

Personal Computers

- + Unlimited Apps
- + Mouse, Icons, and Graphic interface
- Increased Maintenance



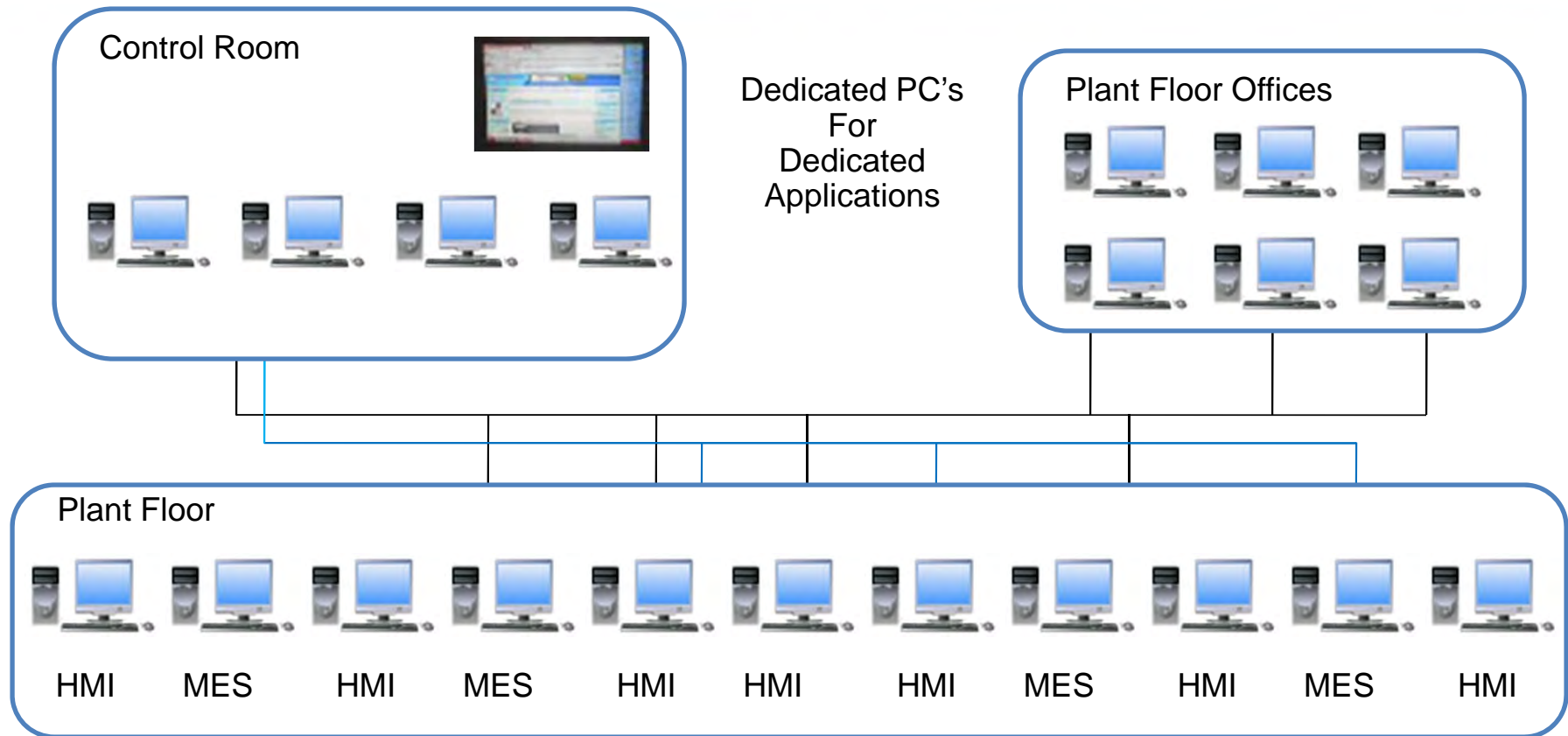
Phase 3

Terminal Services

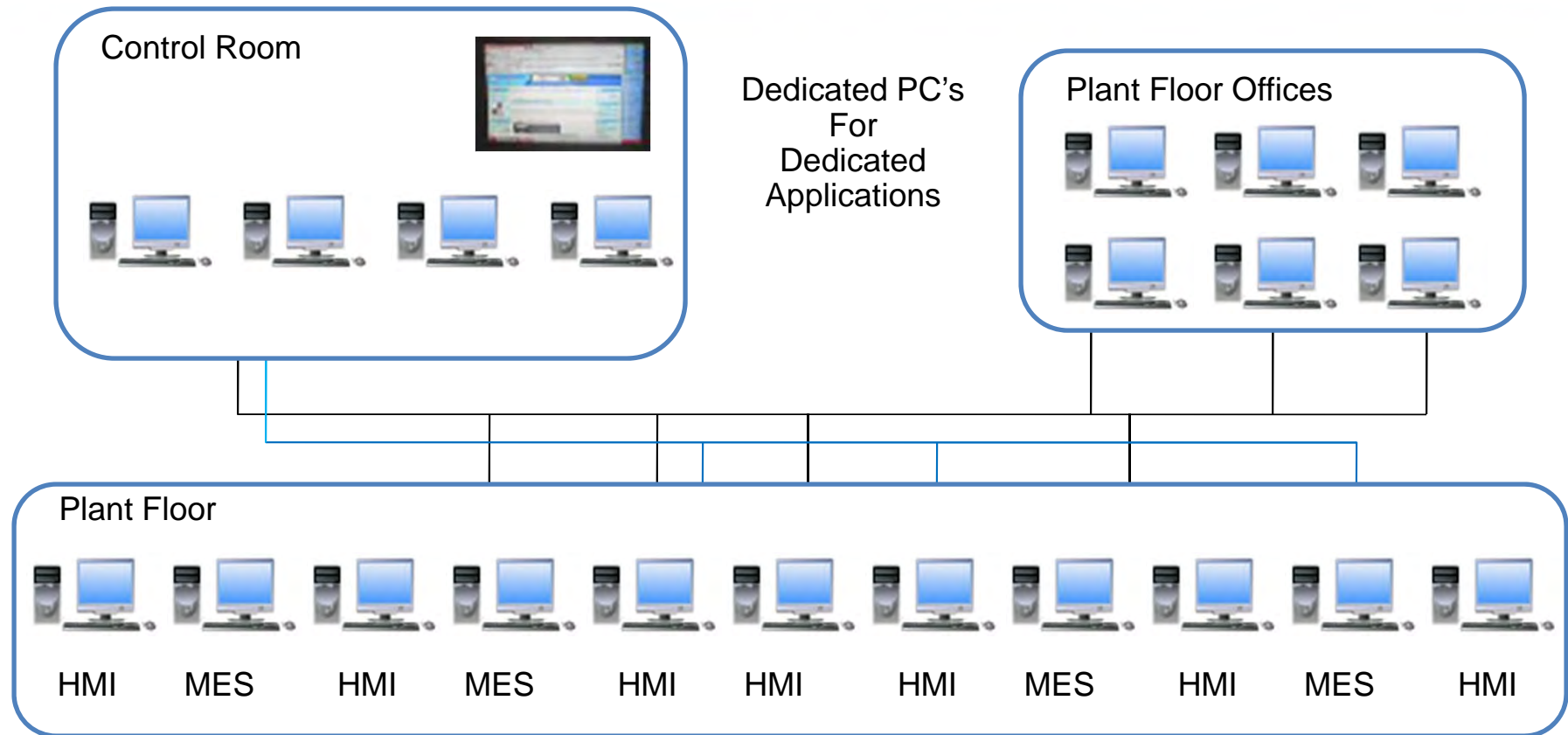
- + Diskless Thin Clients
- + Centralized Control
- + Centralized Management
- + Unlimited Apps
- + Reduced Maintenance



Traditional Plant Network

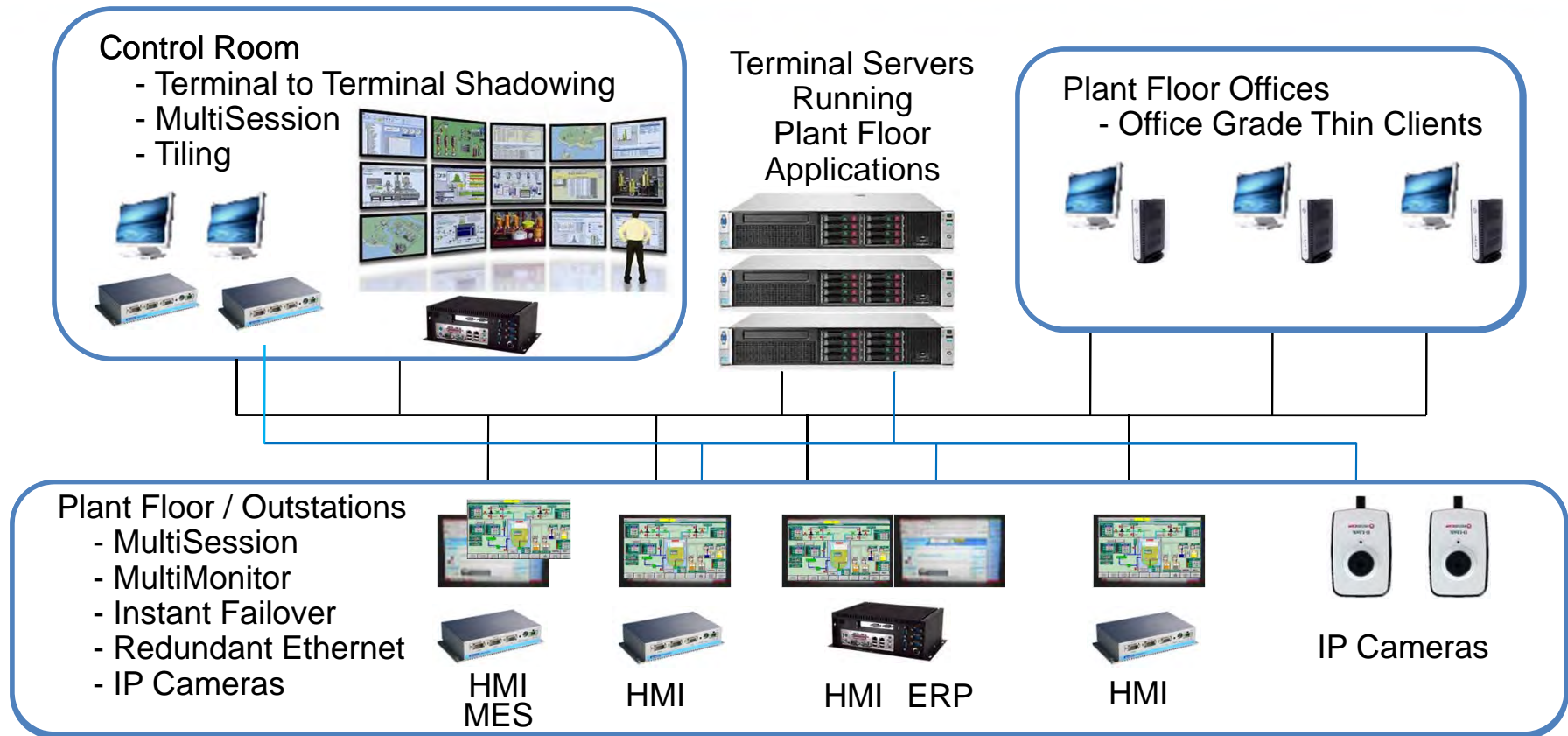


Traditional Plant Network

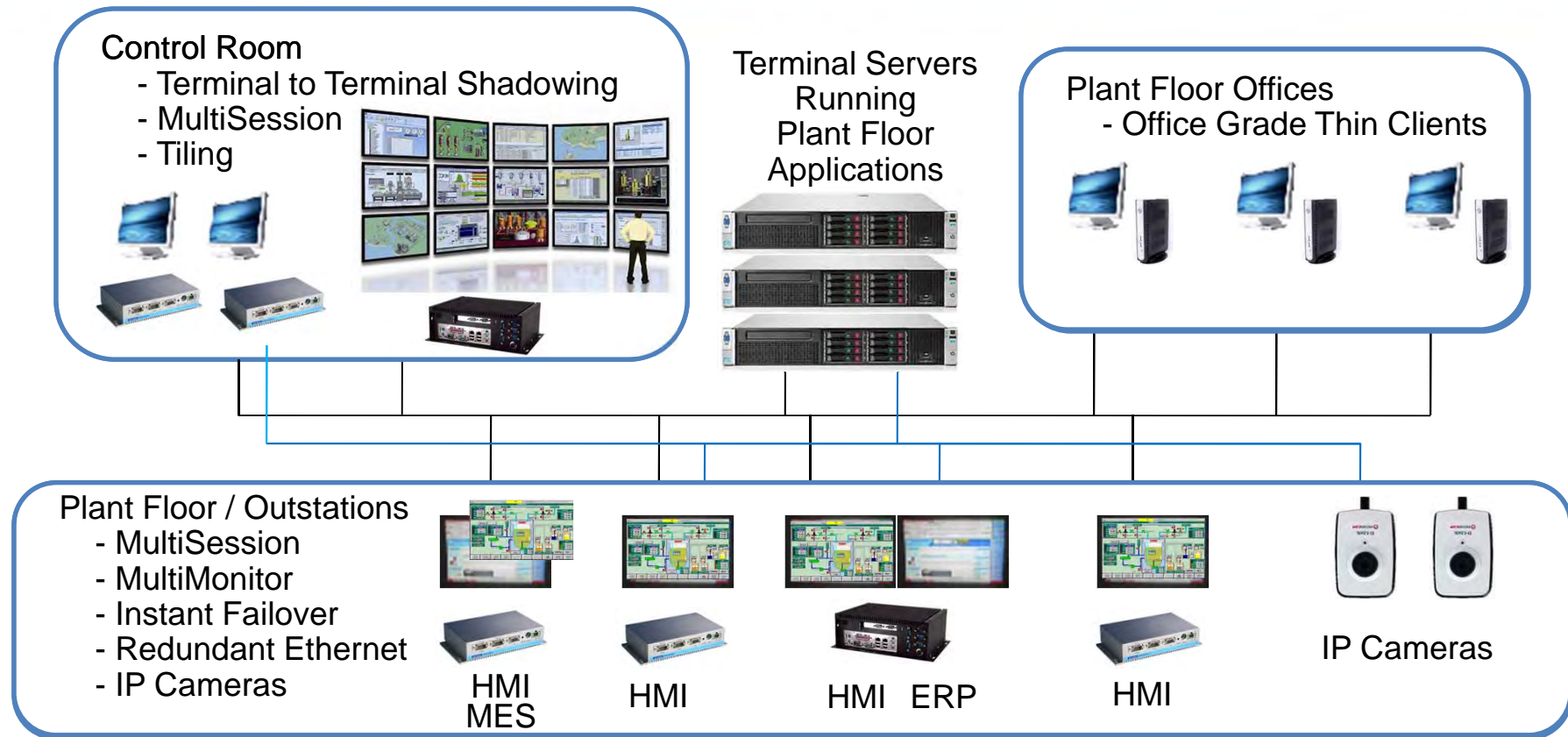


Processing on individual hard drives in harsh and varied environments

ACP Enabled Network



ACP Enabled Network

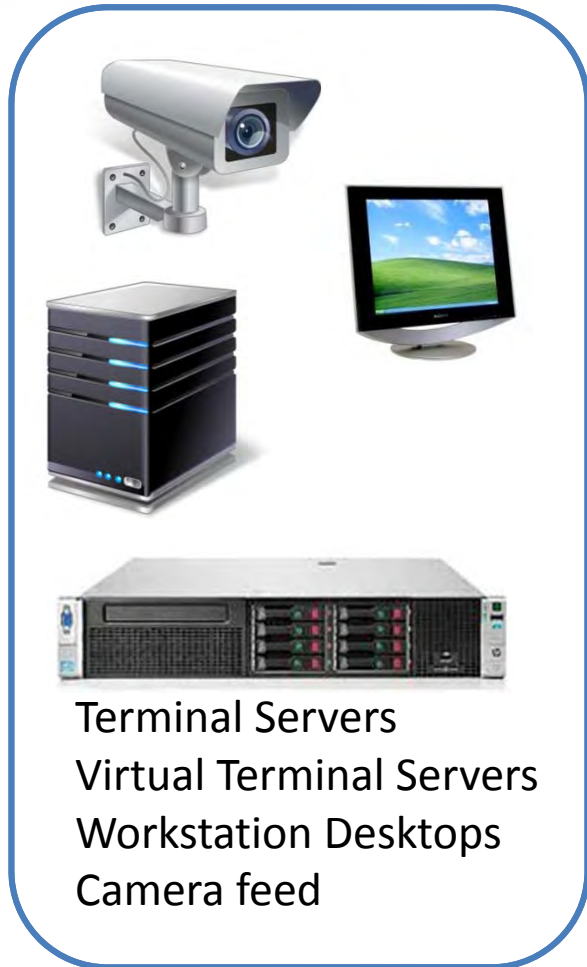


Processing consolidated on centralized servers in nice environment

How Does ThinManager Work?

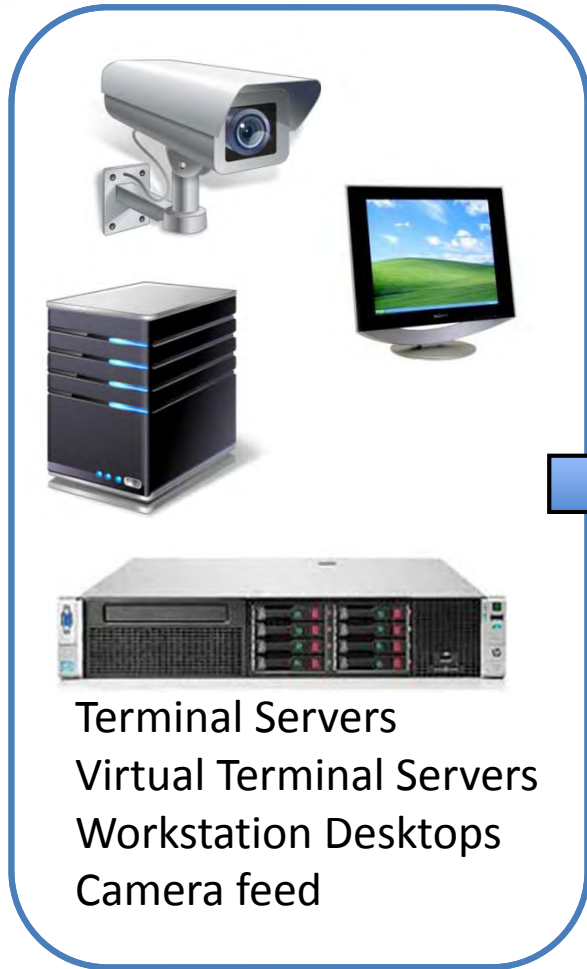


Content Delivery System



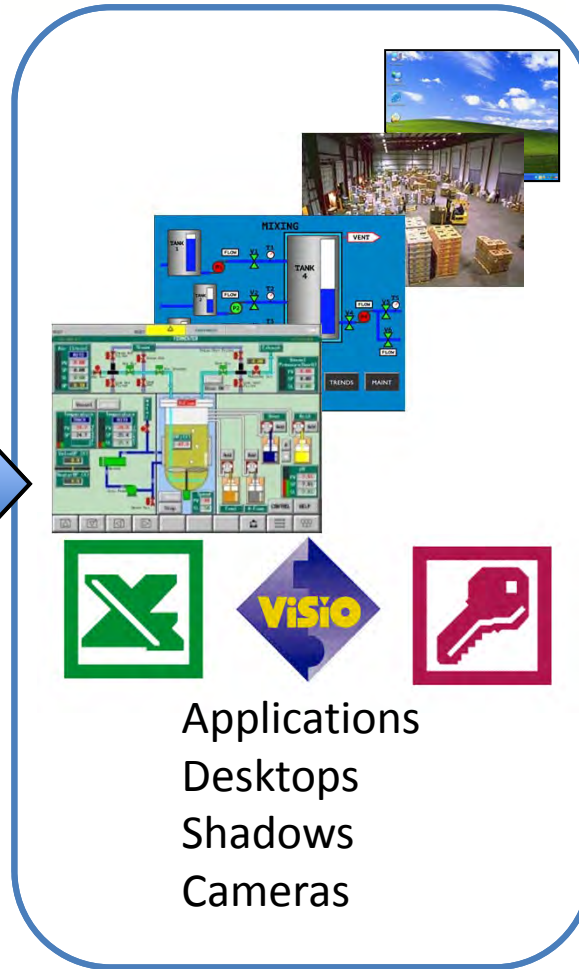
Terminal Servers
Virtual Terminal Servers
Workstation Desktops
Camera feed

Content Delivery System



A collection of hardware components including a wall-mounted security camera, a desktop monitor displaying a green landscape, a server tower with blue lights, and a server rack with multiple drive bays.

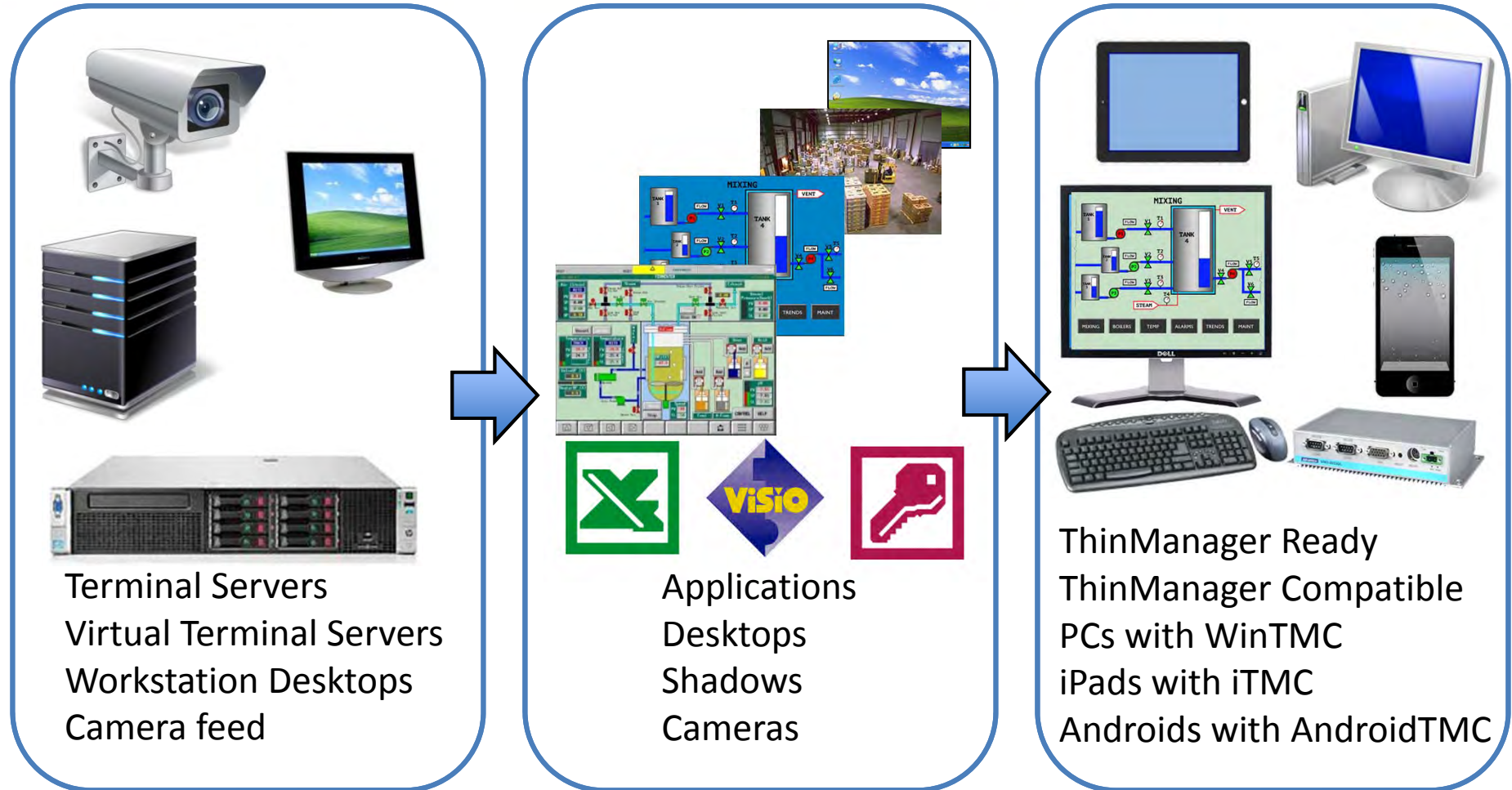
Terminal Servers
Virtual Terminal Servers
Workstation Desktops
Camera feed



A collection of software and application components including a desktop monitor displaying a green landscape, a monitor displaying a factory floor, a monitor displaying a control panel with 'MIXING' and 'TANK 4' labels, a monitor displaying a complex control interface, and three icons: a green 'X' in a square, the 'Visio' logo, and a red key in a square.

Applications
Desktops
Shadows
Cameras

Content Delivery System



System Components

- Windows Terminal Servers and licenses
 - Terminal Services/Remote Desktop Services CALs
- Applications and Licenses
- ThinManager and Licenses
- ThinManager Ready thin clients

Applications on Terminal Servers



15-25 industrial sessions per server
100 office sessions per server

Microsoft Licensing



Microsoft Licensing



Microsoft Licensing is an
Installed Role on any server,
Not a separate piece of hardware



ThinManager



ThinManager



ThinManager can be installed
On any computer but is often
Installed on a terminal server

Terminals



Terminals

- Operator station, PC substitute, that connects to terminal server
 - ThinManager Ready thin clients with ACP BIOS
 - ThinManager Compatible thin clients with PXE Boot
 - PCs with WinTMC
 - iPads with iTMC
 - Androids with AndroidTMC

Display Source - Content

- Display Server – sources that provide content that can be displayed on the client
 - Terminal Servers
 - Virtual Terminal Servers
 - IP Cameras
 - Workstations
 - Virtual Workstations
 - Other Terminals

Display Client - Graphics

- Display Client - the graphic rendering of the output from a Display Server
 - Terminal Services Session
 - Virtual Terminal Services Session
 - IP Camera
 - Workstation Desktop
 - Virtual Desktop
 - Terminal-to-Terminal Shadow

Boot Process

- The thin client is pointed to ThinManager
- The thin client downloads firmware and configuration
- The configuration sends the thin client to the terminal servers
- The configuration contains information to start a session
- Session is displayed on the thin client

Boot Process



Thin Client to ThinManager



ThinManager to Thin Client



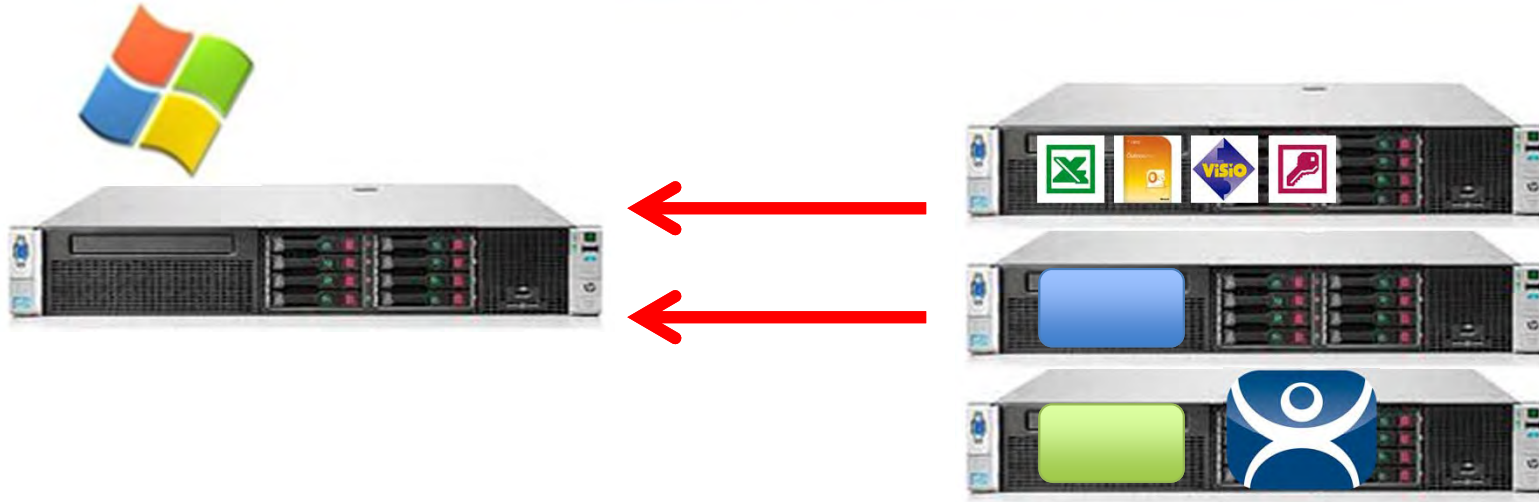
Firmware Expansion



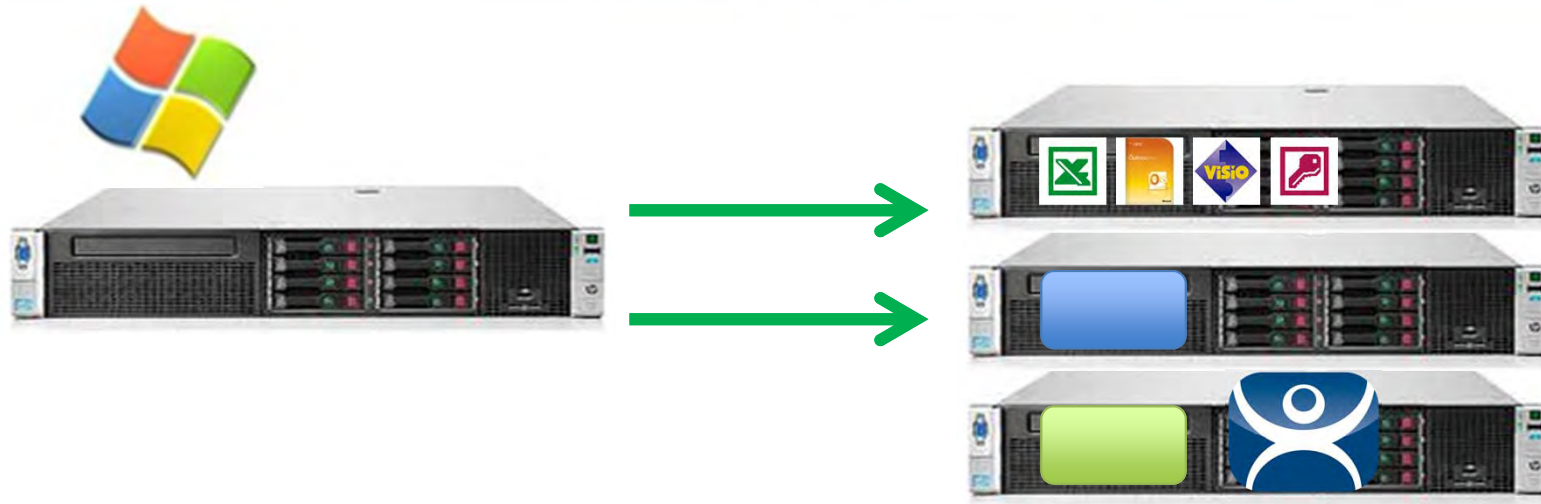
Thin Client to Terminal Servers



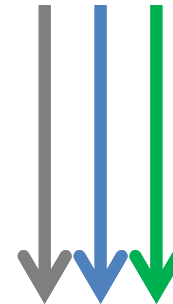
Microsoft License Check



Microsoft License Check



Sessions Created and Delivered



Thin Client Function

- Thin client sends mouse and keystrokes to terminal server for processing
- Terminal server send video graphic down to thin client for display
- Monitors health of servers and applications for failover

Power & Ease Feature Set



Vital Functionality

- Quick Deployment
- Quick Replacement
- Central Control
- Terminal Shadowing for Overseeing the Process
- Short Time to Recovery after Failures

ThinManager Tools / Solutions

- Multiple Sessions/Session Tiling
- Multiple Monitor Support (5)
- Shared Keyboard & Mouse
- Client to Client shadowing
- IP Camera Management
- VMWare Source Management
- Mobile Client
- TermSecure (user/role management)
- Failover and Instant Failover
- Robust video/touchscreen drivers
- Relevance location-based mobility

QUICK REPLACE

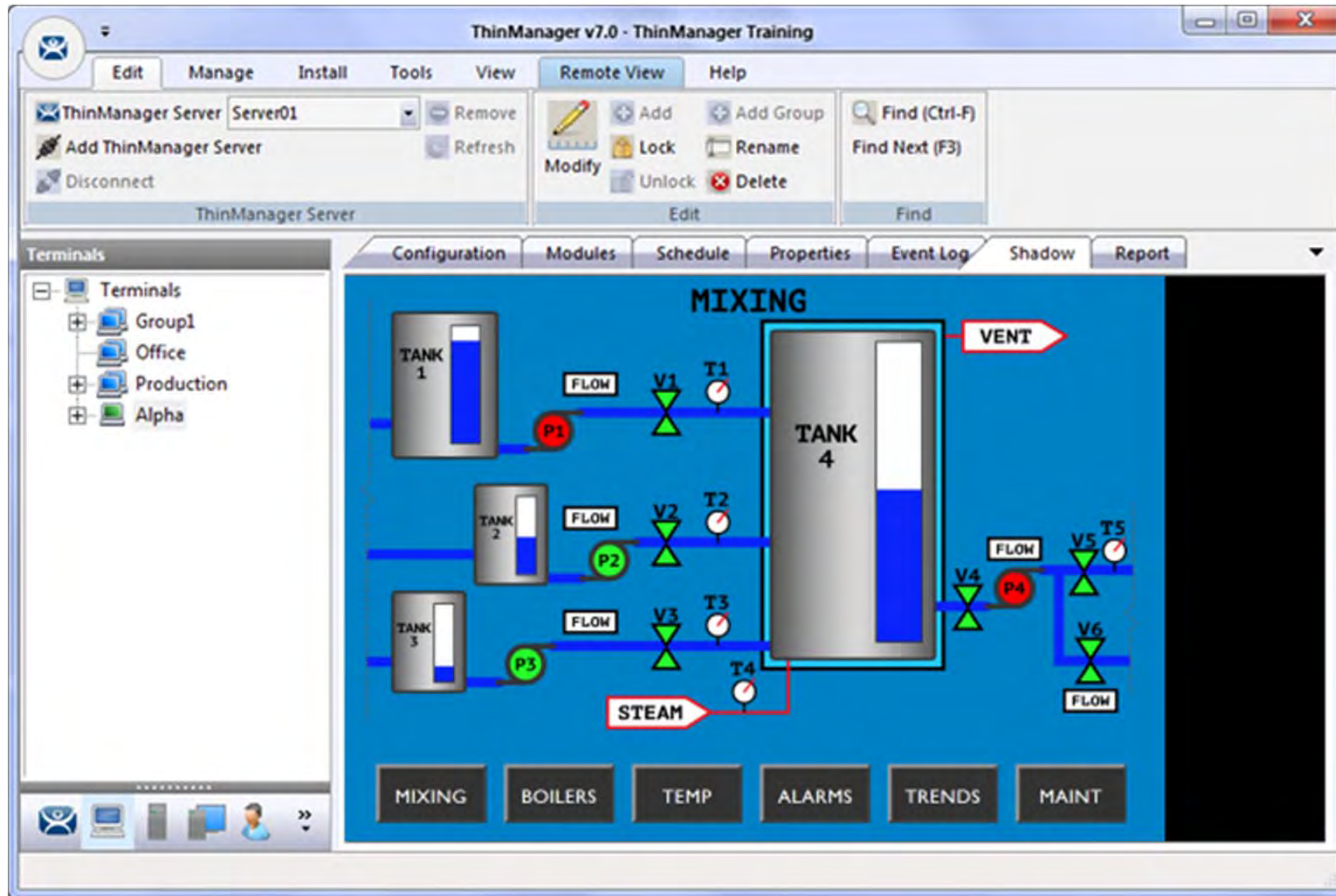
Most ThinManager thin clients can be replaced by anyone in under 2 minutes without any loss of data!



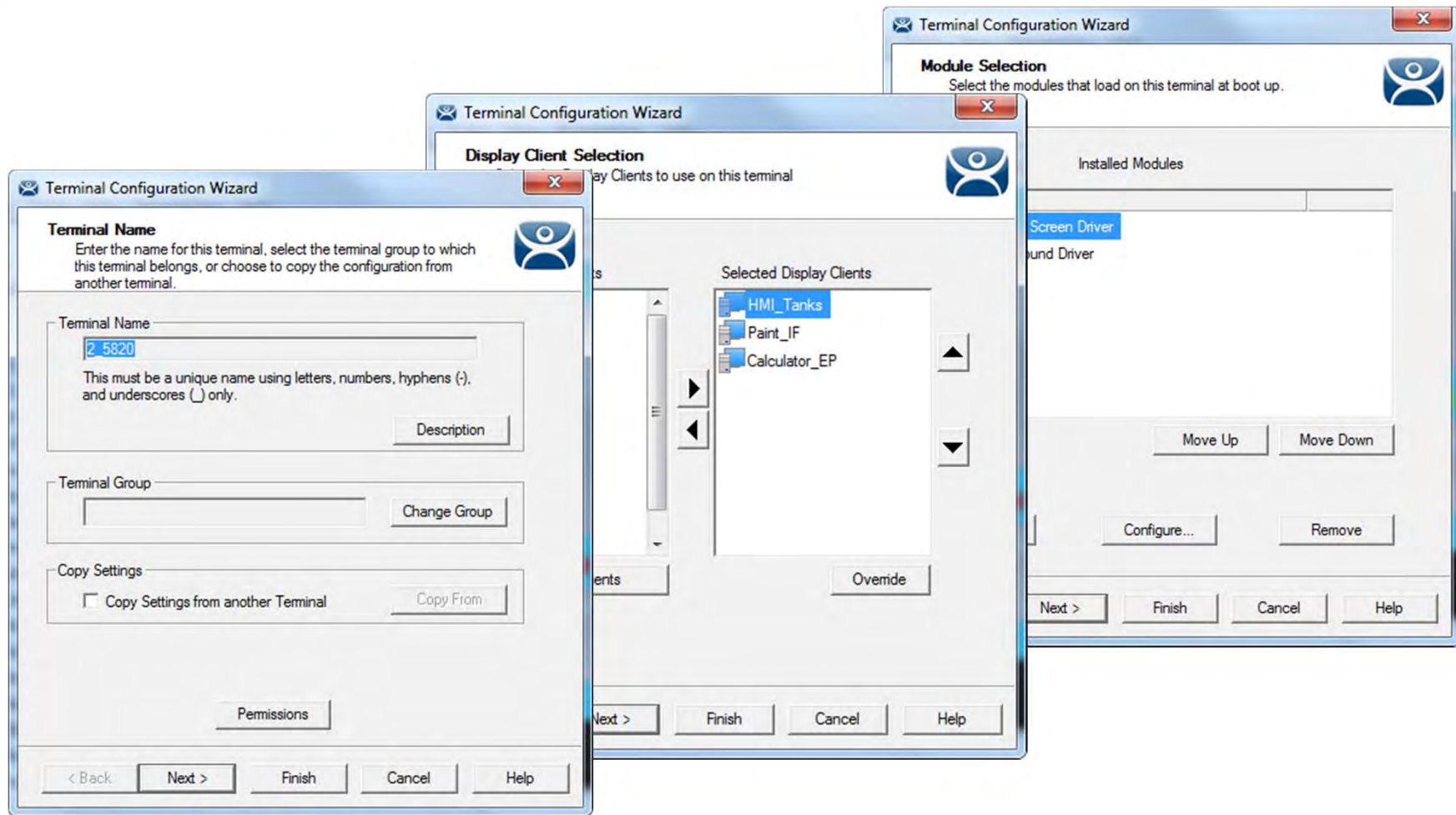
Core Functionality

- Wizard-based Configuration
- Failover Management
- Instant Failover
- AppLink
- Terminal Shadowing
- User Security
 - TermSecure
- VMware Virtual Machine Management
- Software Clients
 - WinTMC, iTMC
- MultiSession
- SmartSession
- Display Versatility:
 - MultiMonitor
 - DisplayLink
 - Keyboard/Mouse Sharing
 - Tiling
- Redundant Ethernet
- IP Camera Support
- iOS (iPad/iPhone) Support
- Remote Management

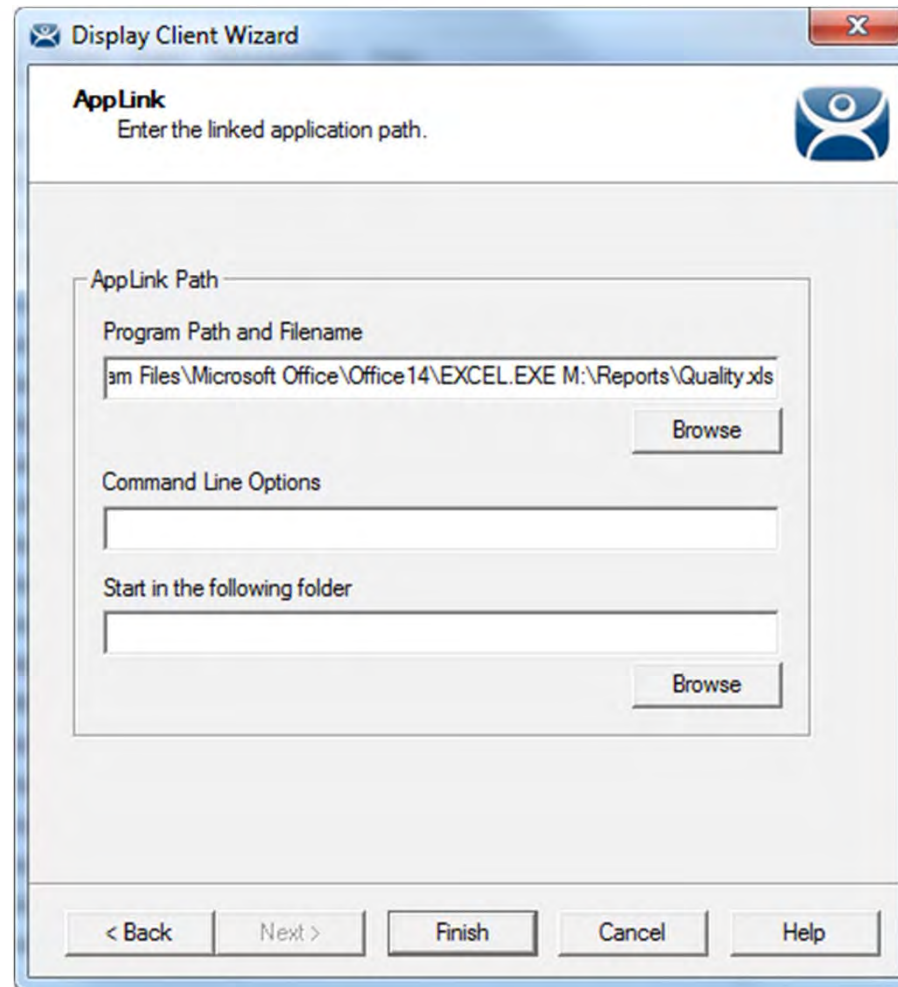
ThinManager Interface



Configuration with Wizards

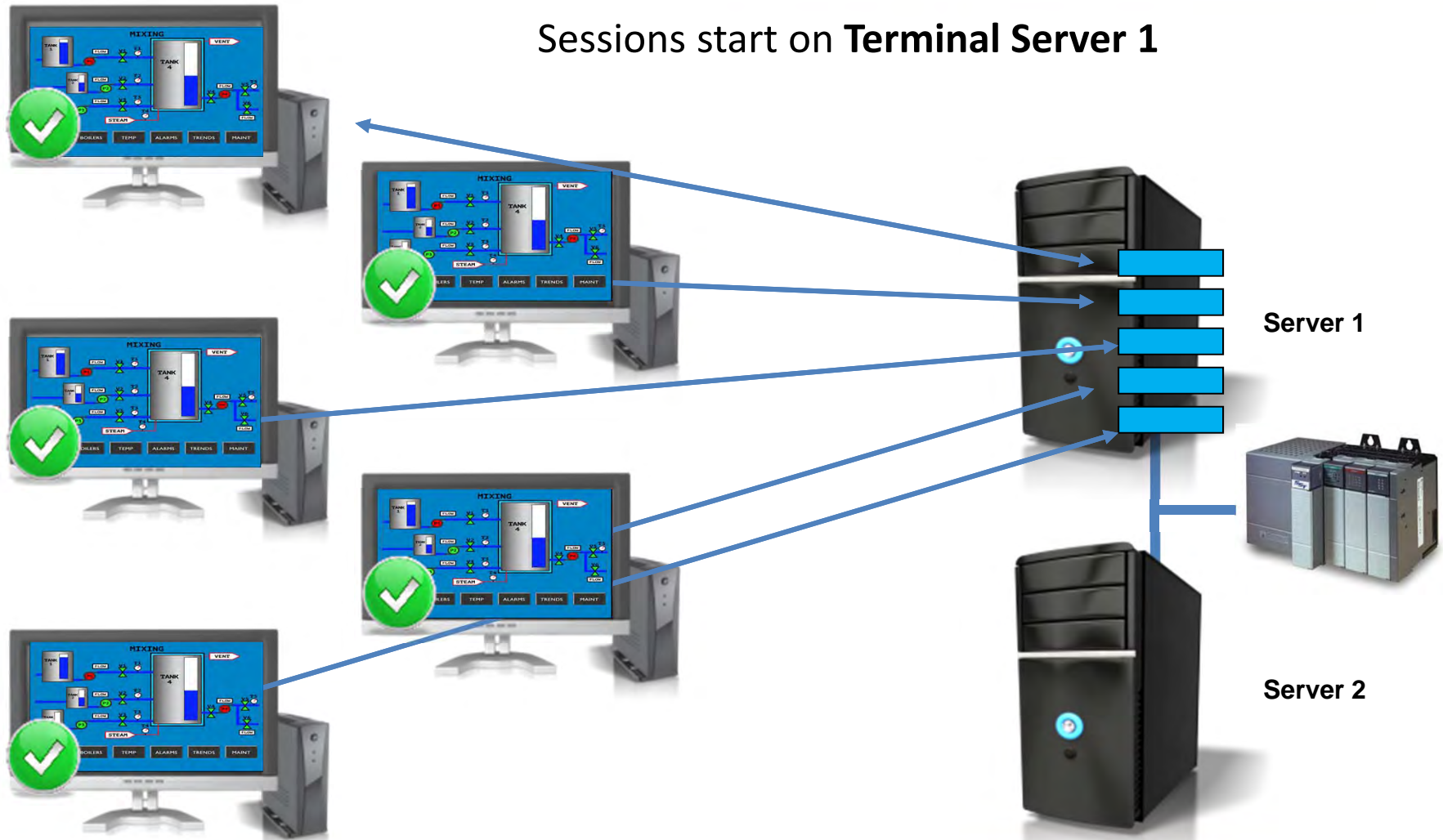


AppLink for Application Deployment

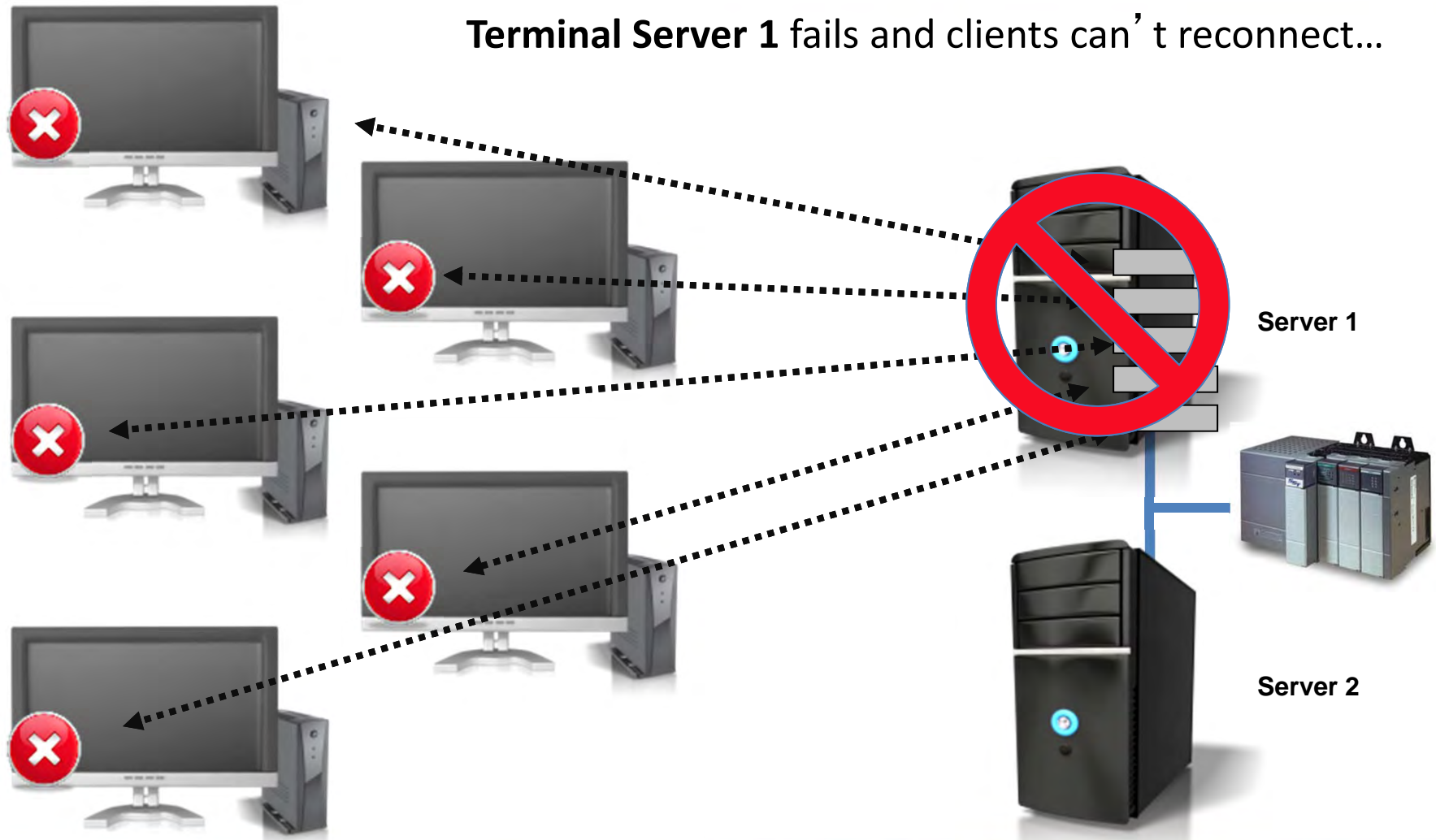


The screenshot shows a Windows-style dialog box titled "Display Client Wizard". Inside the dialog, there is a section titled "AppLink" with the instruction "Enter the linked application path." and a small icon of a person. Below this, there are three input fields: "AppLink Path" (which contains "Program Path and Filename" and the text "am Files\Microsoft Office\Office14\EXCEL.EXE M:\Reports\Quality.xls" with a "Browse" button to its right), "Command Line Options" (an empty text box), and "Start in the following folder" (an empty text box with a "Browse" button to its right). At the bottom of the dialog, there are five buttons: "< Back", "Next >", "Finish", "Cancel", and "Help".

Failover

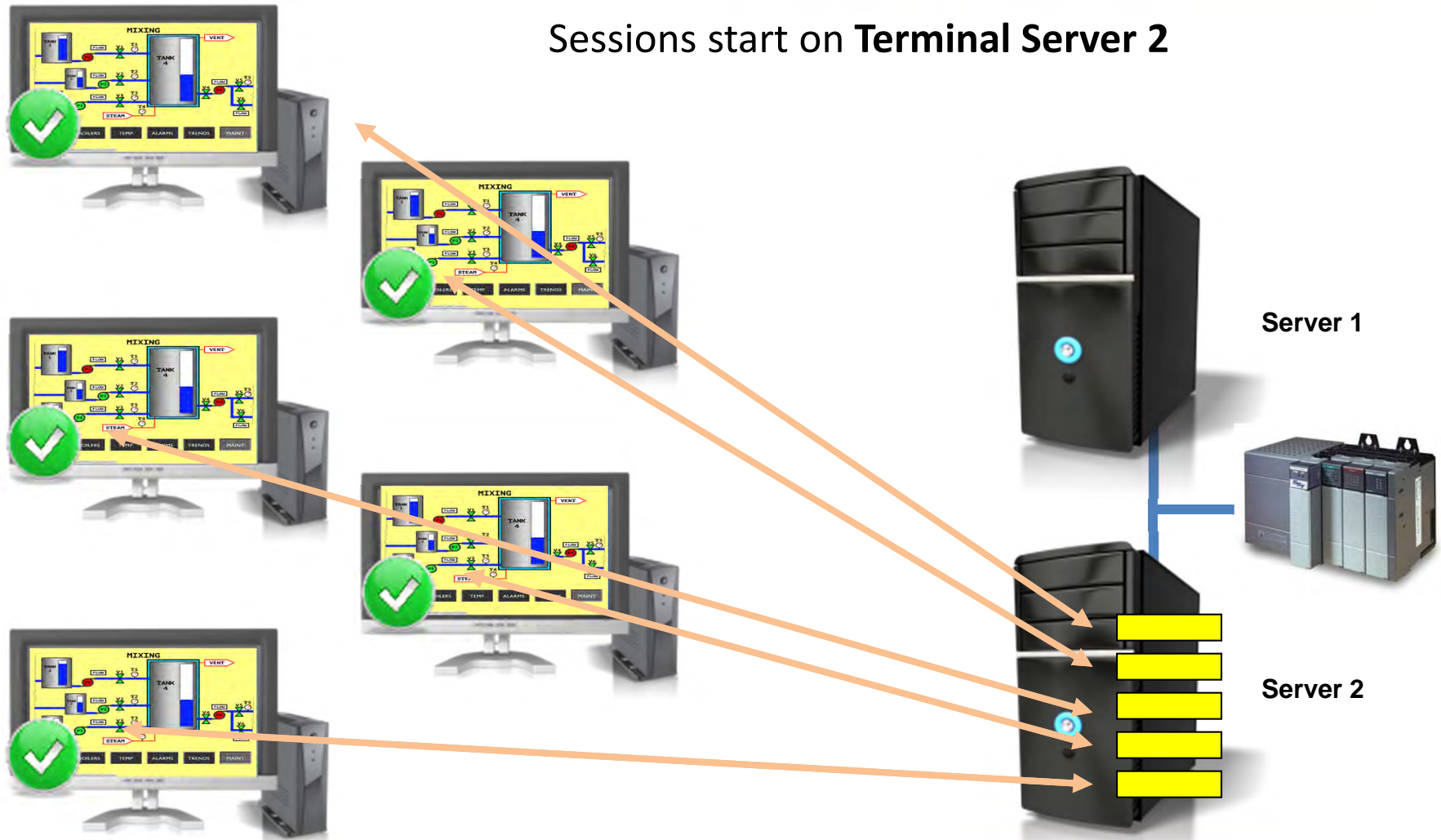


Failover



Failover

Sessions start on Terminal Server 2

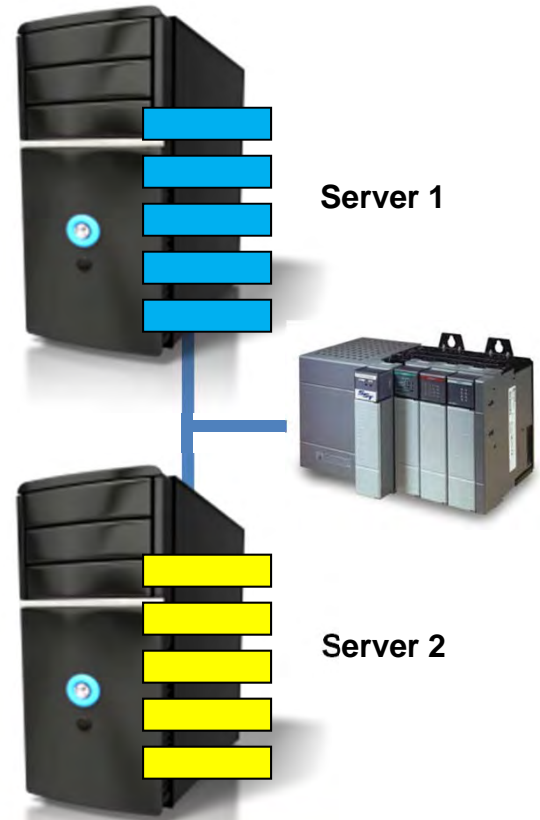
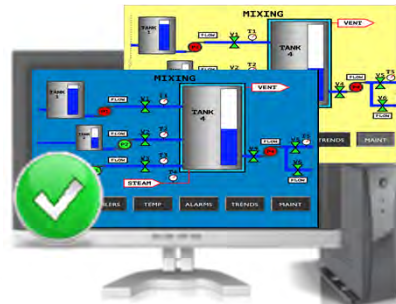
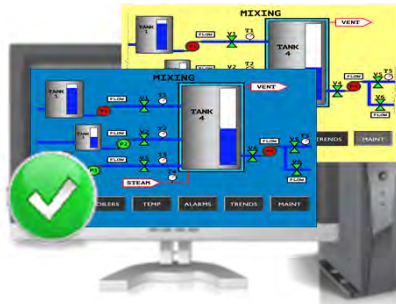
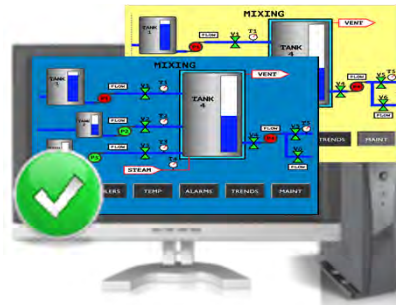
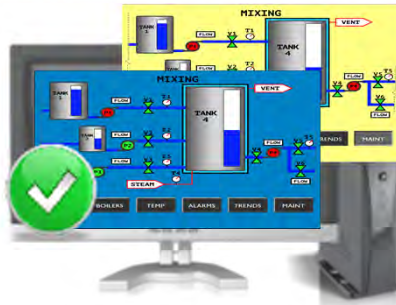


Failover is Fast

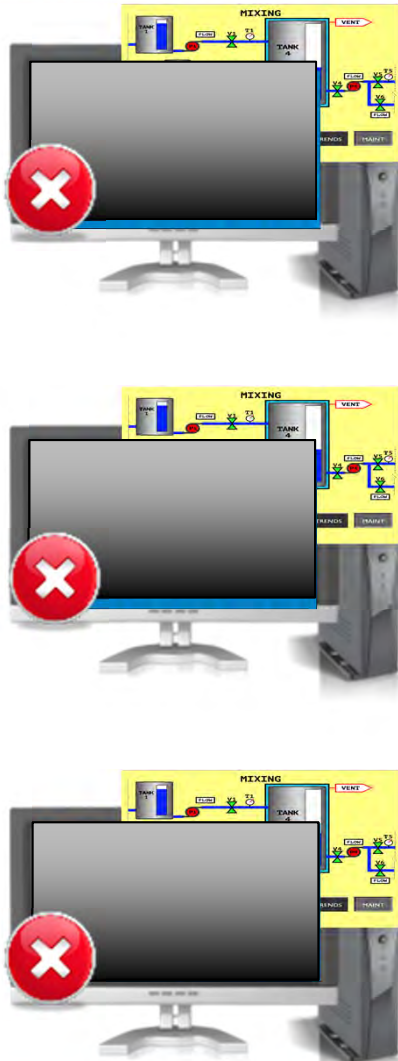
- Switch to backup takes 20 seconds or less
- Application may take 1 – 3 minutes to load
- Not Fast Enough?

Instant Failover

Sessions start on **Terminal Server 1** and **Terminal Server 2**



Instant Failover



Sessions stop on Terminal Server 1



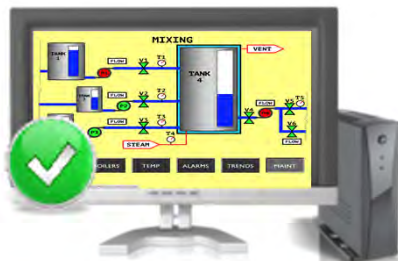
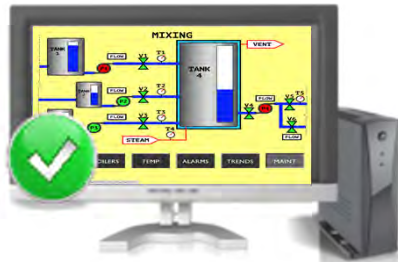
Server 1



Server 2

Instant Failover

Terminals Switch to Sessions on **Terminal Server 2**



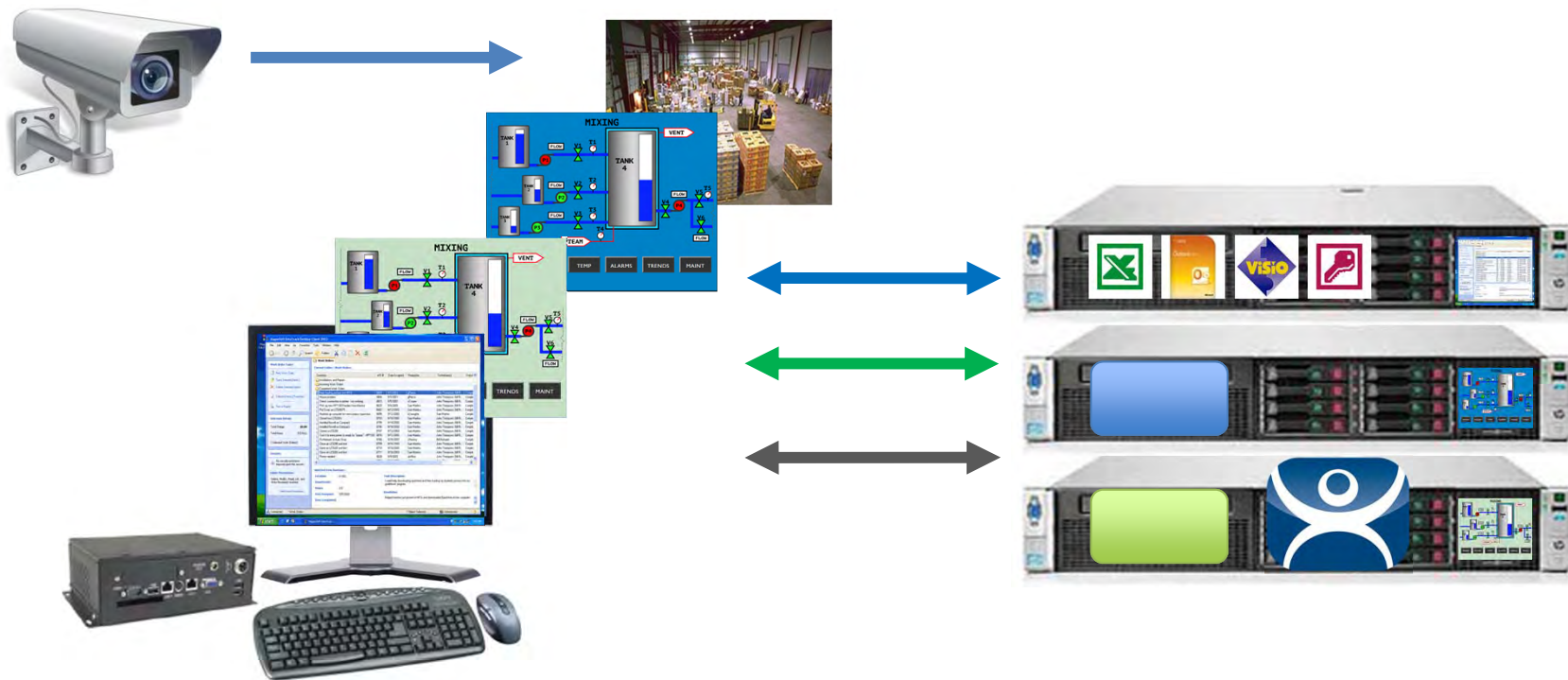
Server 1



Server 2

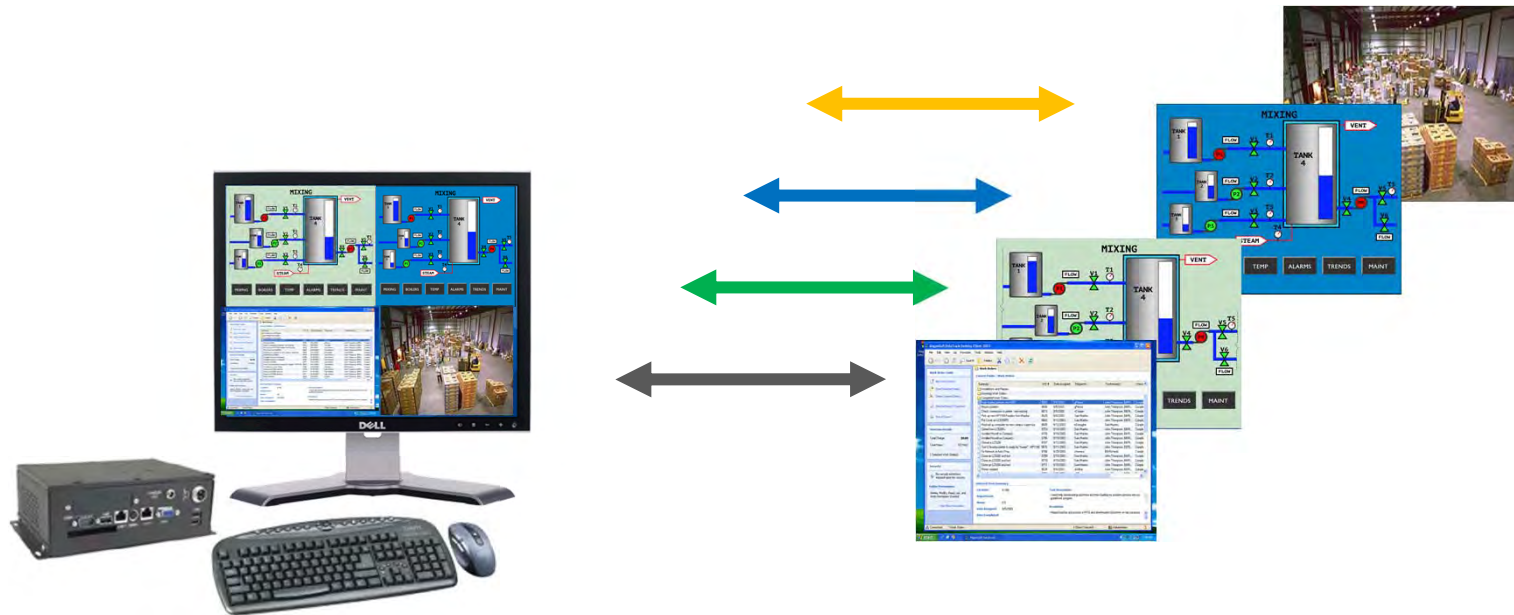
Multisession

Cascade multiple display clients on a terminal



Tiling

Tile multiple display clients on a terminal



MultiMonitor - Spanned

- Join two or more monitors
 - Must be the same resolution
- Full desktop
- MultiSession



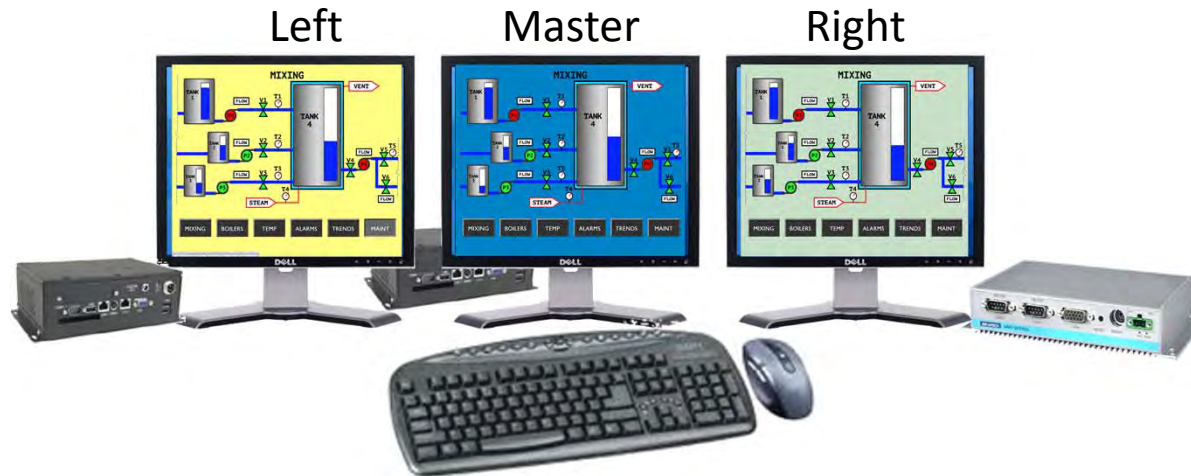
MultiMonitor - Screened

- Deploy to each monitor
- Move display clients
- Anchor display clients
- Tile display clients
- MultiSession



Share Keyboard and Mouse

- Multiple thin clients
- One keyboard and mouse
- One operator



Shared Keyboard and Mouse Module

MultiMonitor Shared Keyboard

Master

Right



MultiMonitor Shared Keyboard and Mouse Module

Thin Client BIOS & PXE Boot

ThinManager Ready

- No hard drive
- Thin client contains ACP BIOS Extension
- Static or DHCP



ThinManager Compatible

- No hard drive
- Thin client contains PXE BIOS Extension
- DHCP Only



Thin Client BIOS & PXE Boot

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Thin Client BIOS & PXE Boot

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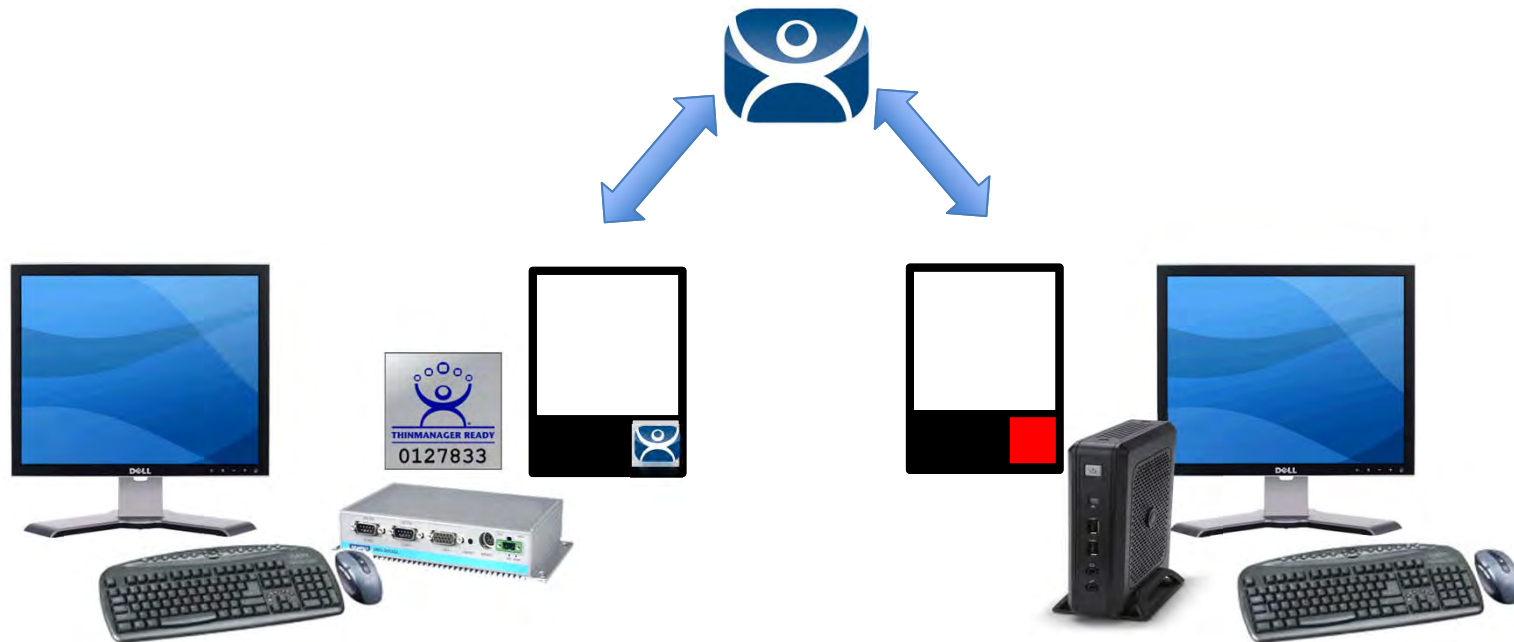
ThinManager Compatible

- No hard drive
- Thin client contains PXE BIOS Extension
- **DHCP Only**



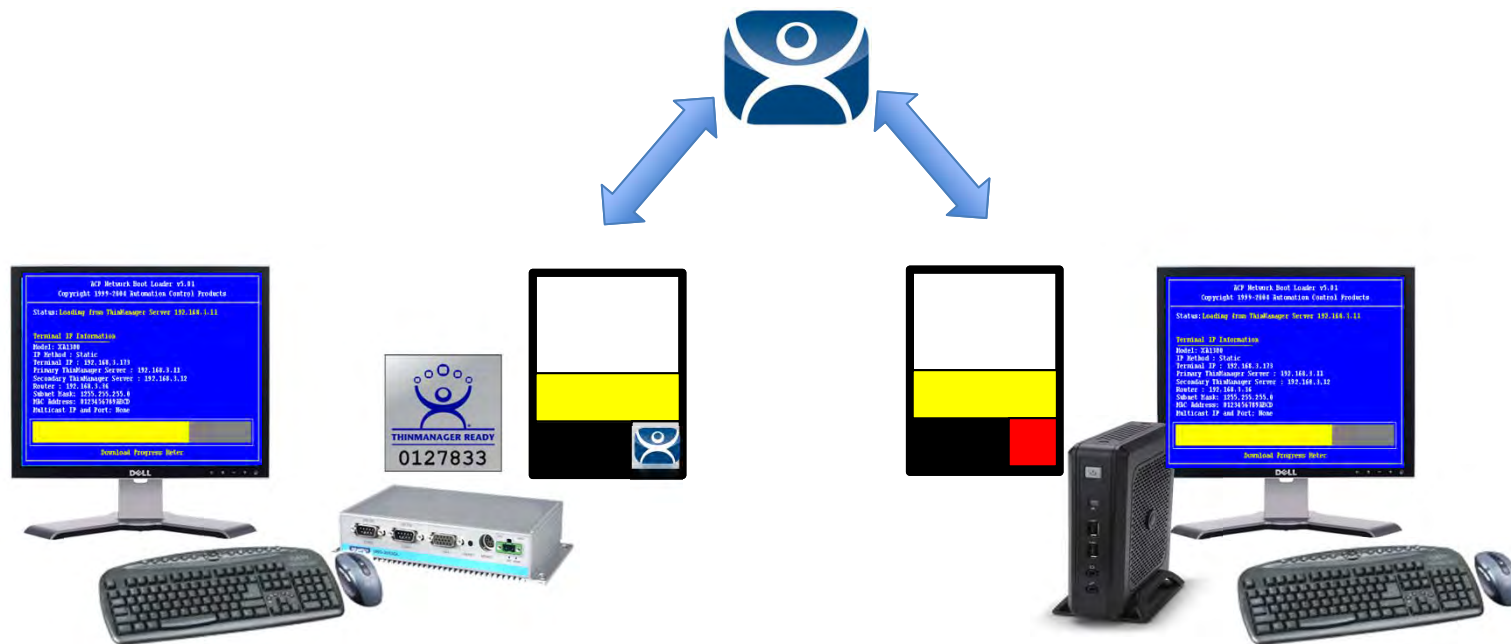
Thin Client Boot Sequence

- Firmware Downloaded
- Firmware Expanded
- Configuration Download



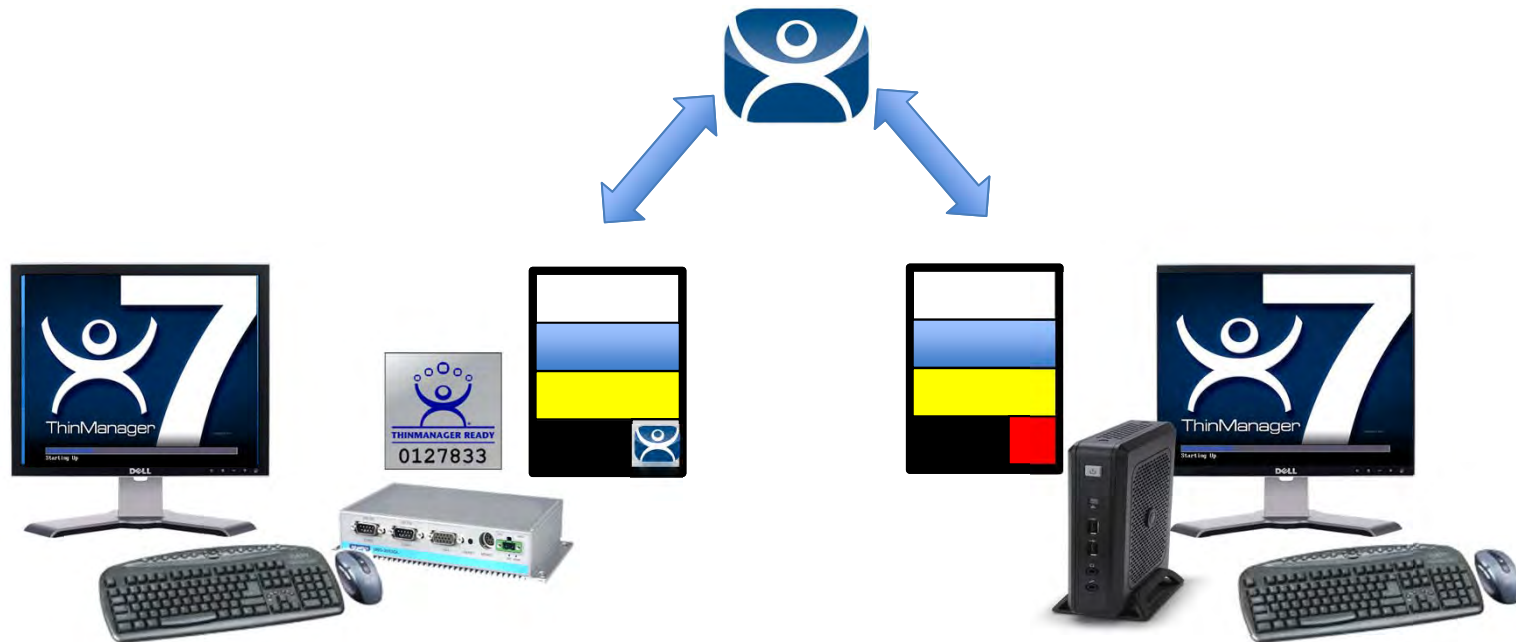
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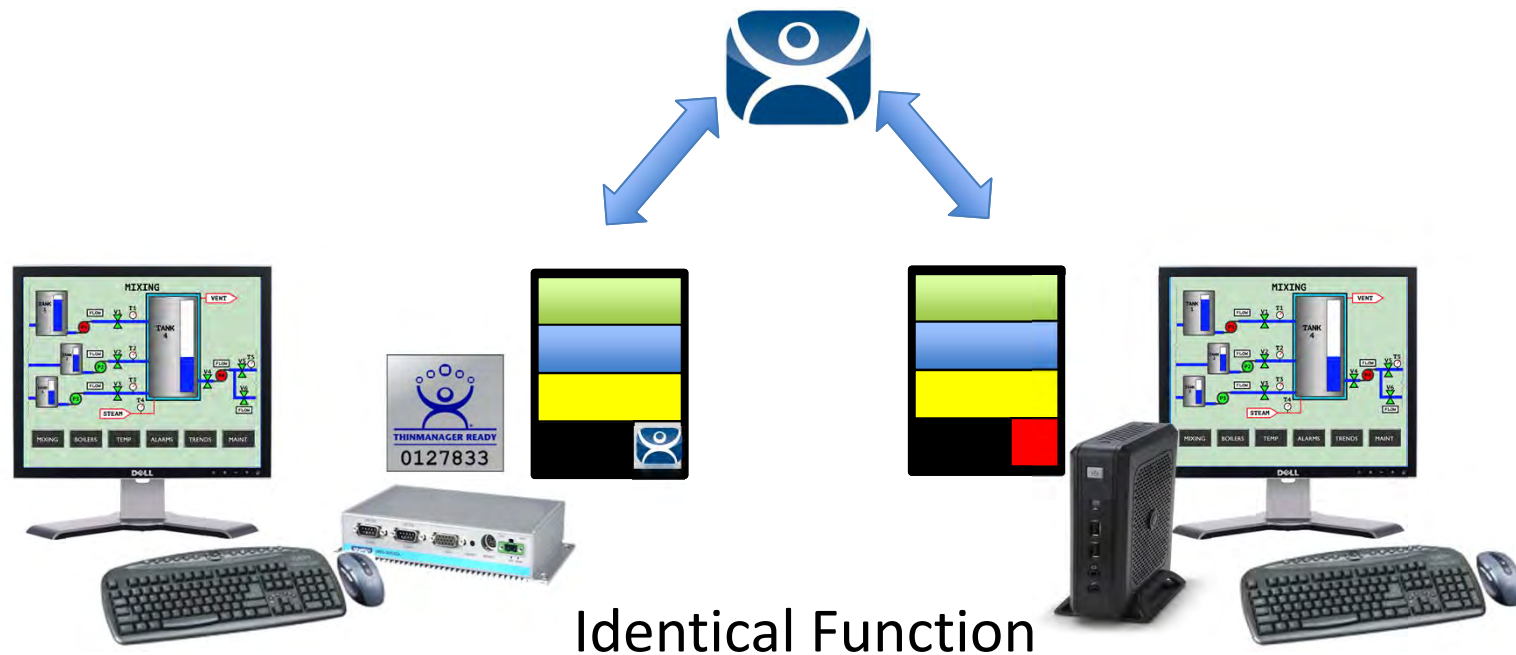
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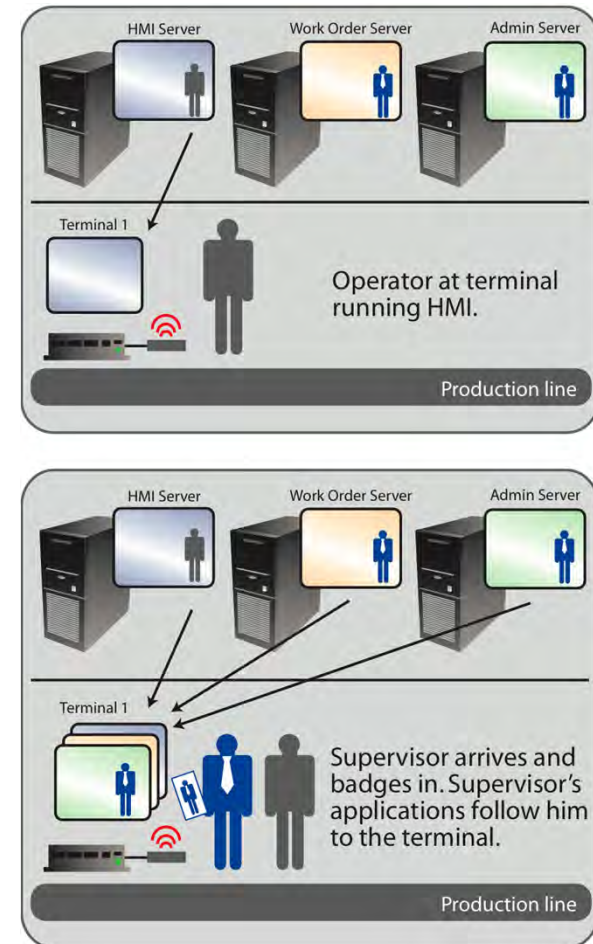
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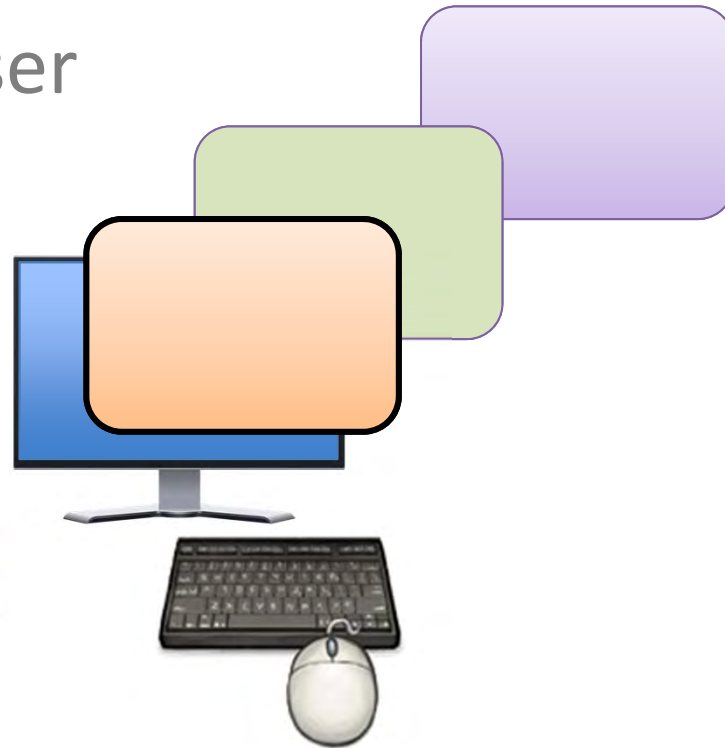
TermSecure

- Hide an application unless user logs in with proper credentials




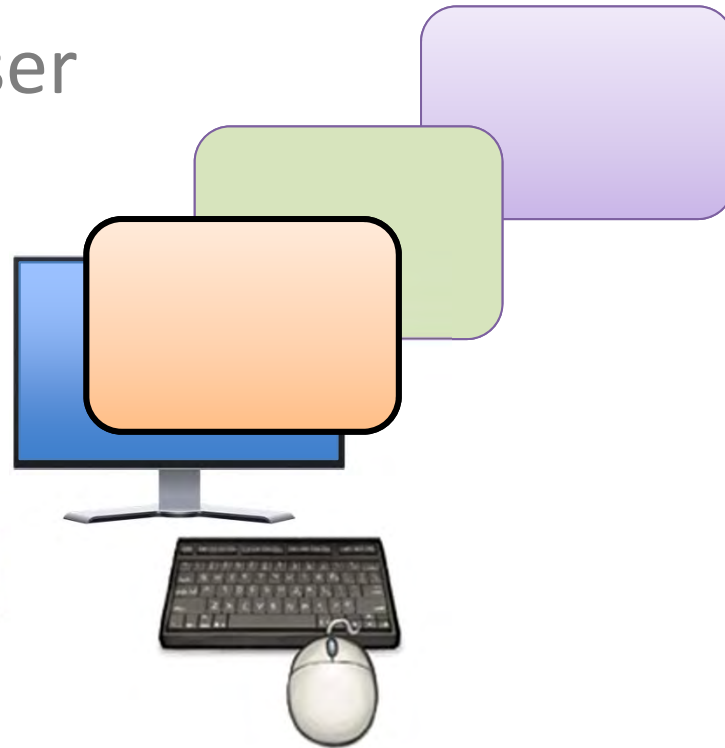
TermSecure - Hide Applications

- Create TermSecure Access Groups
- Apply to Display Clients you want to hide
- Assign Permission to user
- Logging in unlocks



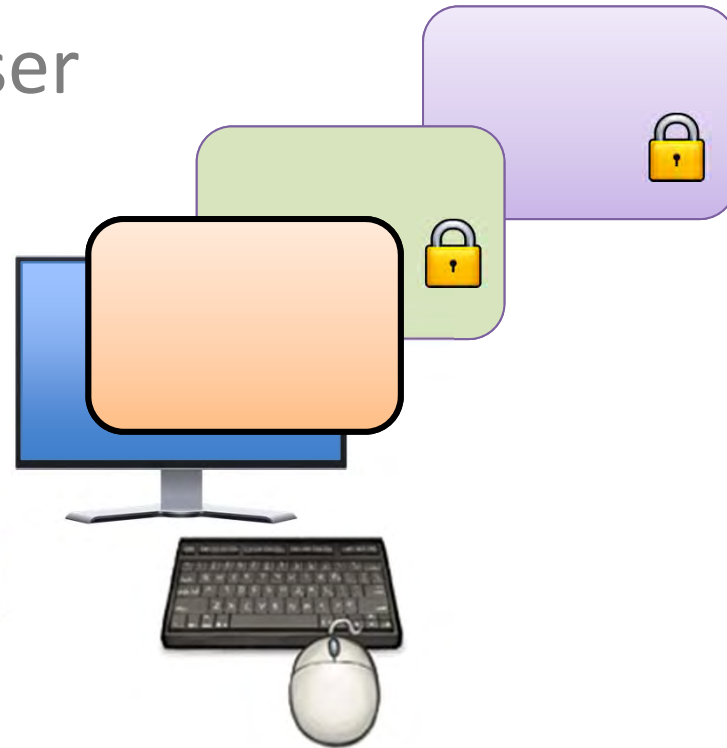
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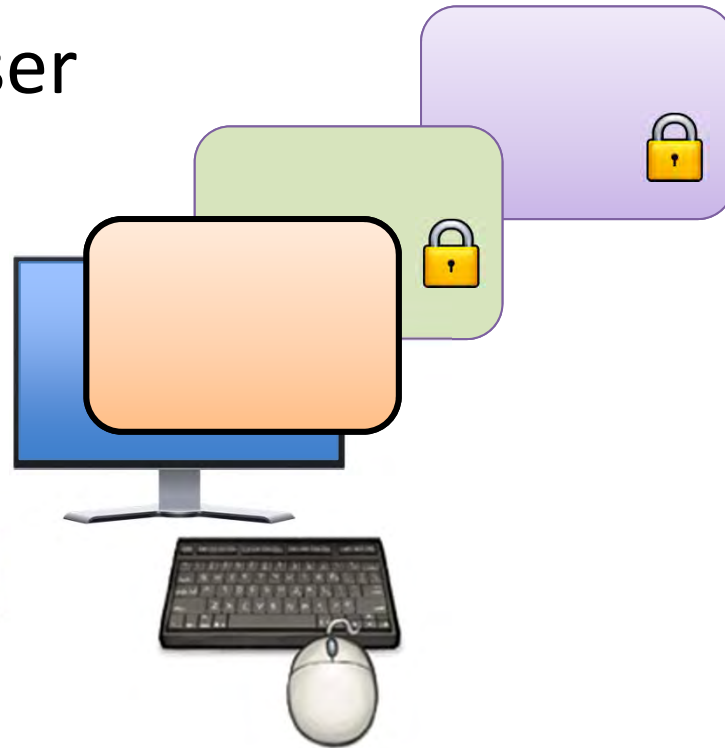
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TermSecure - Hide Applications

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- **Assign Permission to user**
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TermSecure - Hide Applications

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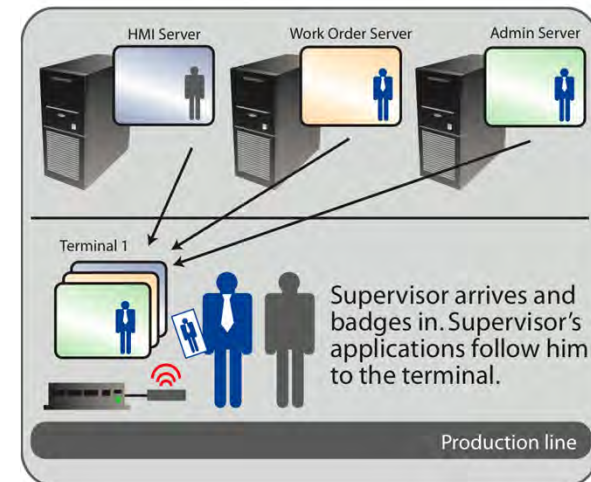
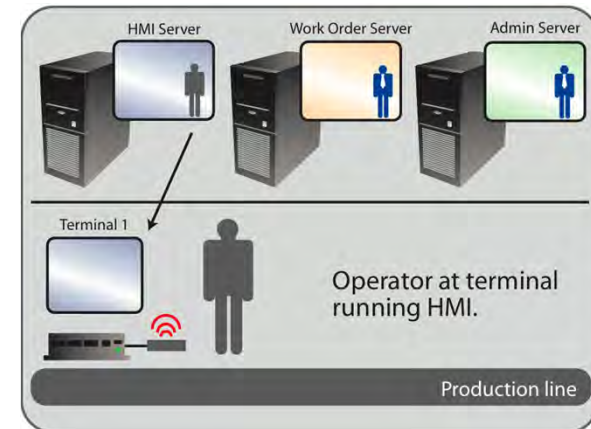
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TermSecure

- Hide an application unless user logs in with proper credentials
 - or –
- Have an application follow a user around the plant



User-specific Applications

- Assign display client to user
- Login redirects the source



User-specific Applications

- Assign display client to user
- Login redirects the source



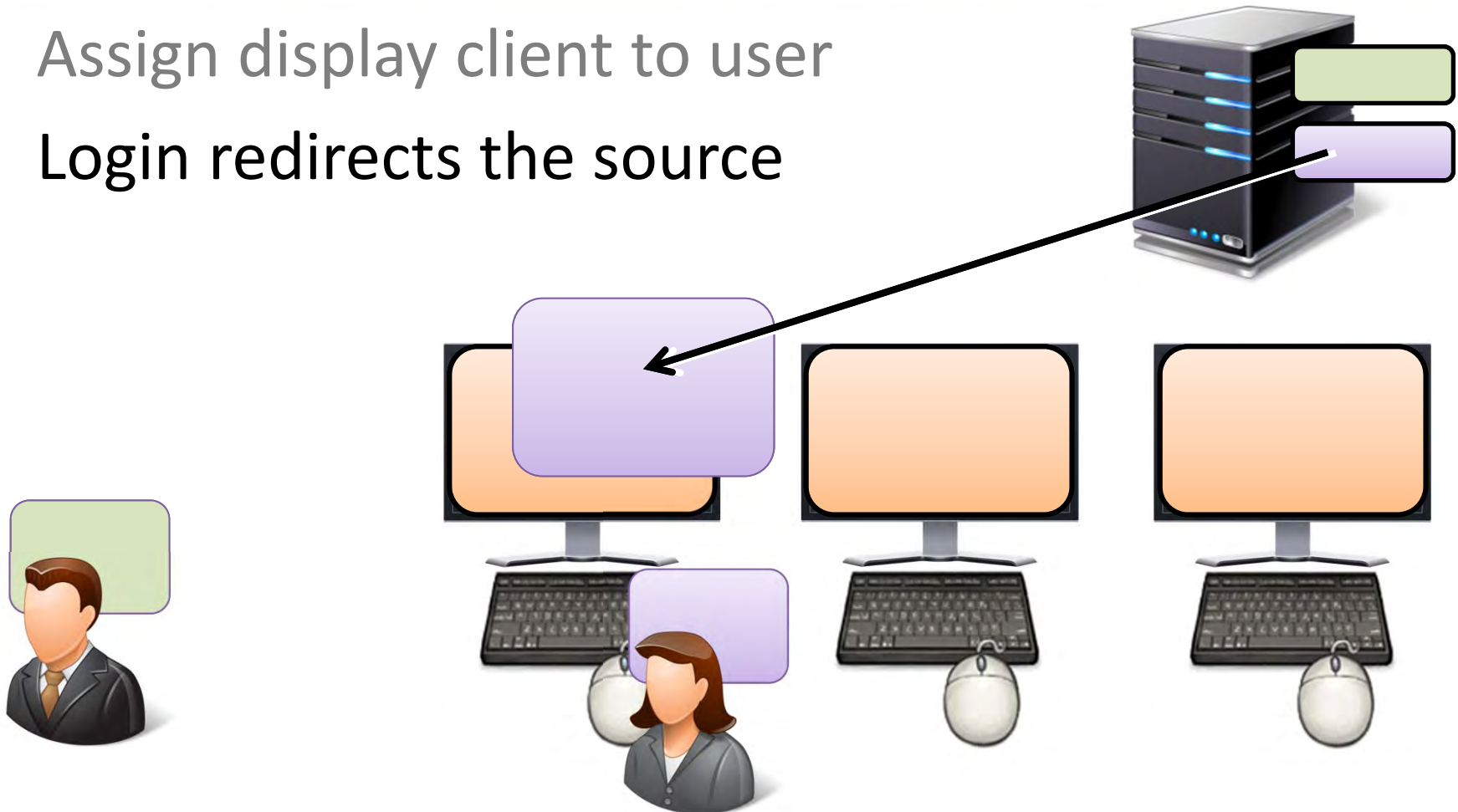
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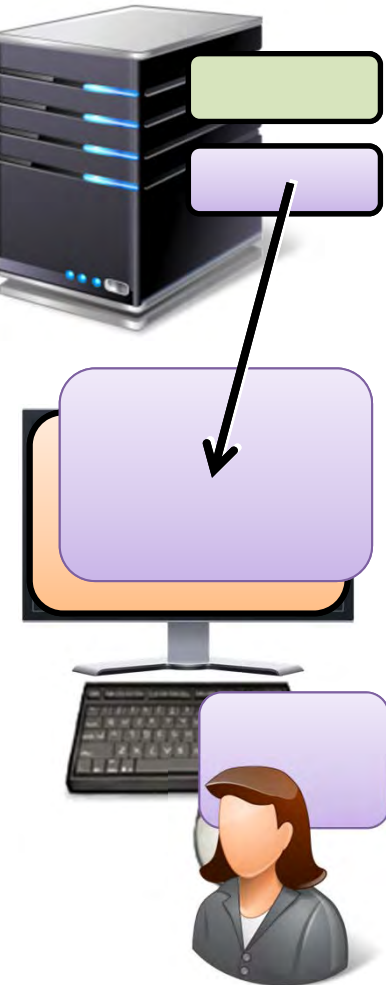
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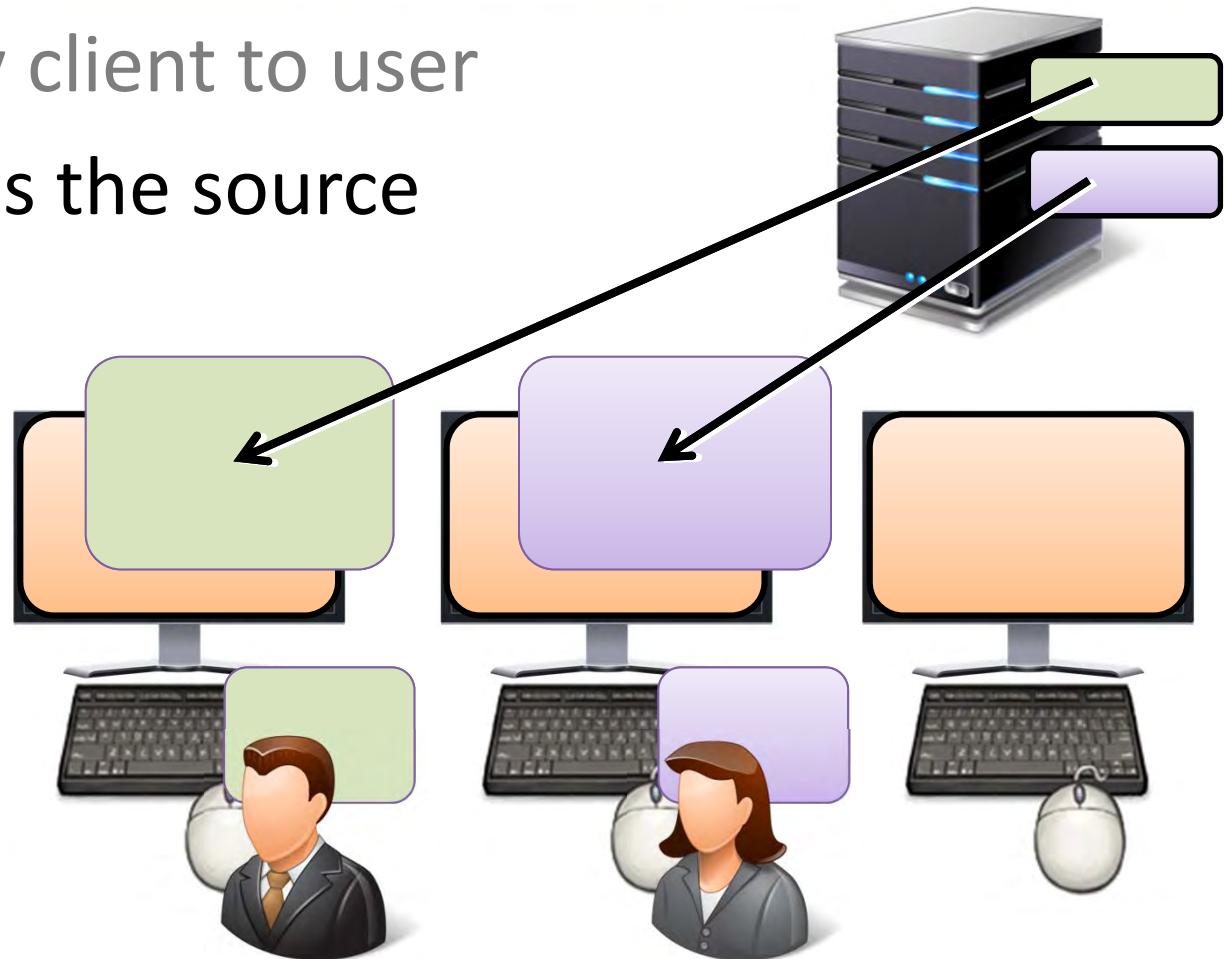
User-specific Applications

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User-specific Applications

- Assign display client to user
- Login redirects the source



Why Use ThinManager?



ThinManager Saves Time



Managed vs. Unmanaged Clients

- Managed PCs save money over unmanaged PCs
– Gartner Group
- Managed thin clients save money over unmanaged thin clients



Management saves you more
Time and **Money** than hardware alone.
This is where ThinManager excels.

Benefits of the ThinManager Platform

ThinManager...

- Increases Reliability
- Increases Control
- Increases Security
- Decreases Energy Costs
- Decreases Maintenance Costs

**ThinManager can significantly lower your
Total Cost of Ownership**

Terminal Services Functions

Terminal Servers	Protocols	Clients
Terminal server session and process management	ICA and RDP Includes: <ul style="list-style-type: none">• High Resolution• COM ports• Sound	Supports remote “device” and session management of thin and fat clients
Grouped access to terminal servers		Automated client failover between terminal servers
Multi-Session		Client Shadowing
Load Balancing		Multiple Monitors
Published Applications		Universal Touch Screen Support
Virtualized Machines		Managed Mobile Platform Apps
Terminal Servers		Protocols

Microsoft Management

- Terminal Server Management Only
- Doesn't Manage the Clients

Terminal Servers	Protocols	Clients
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Terminal Servers	Protocols	Clients

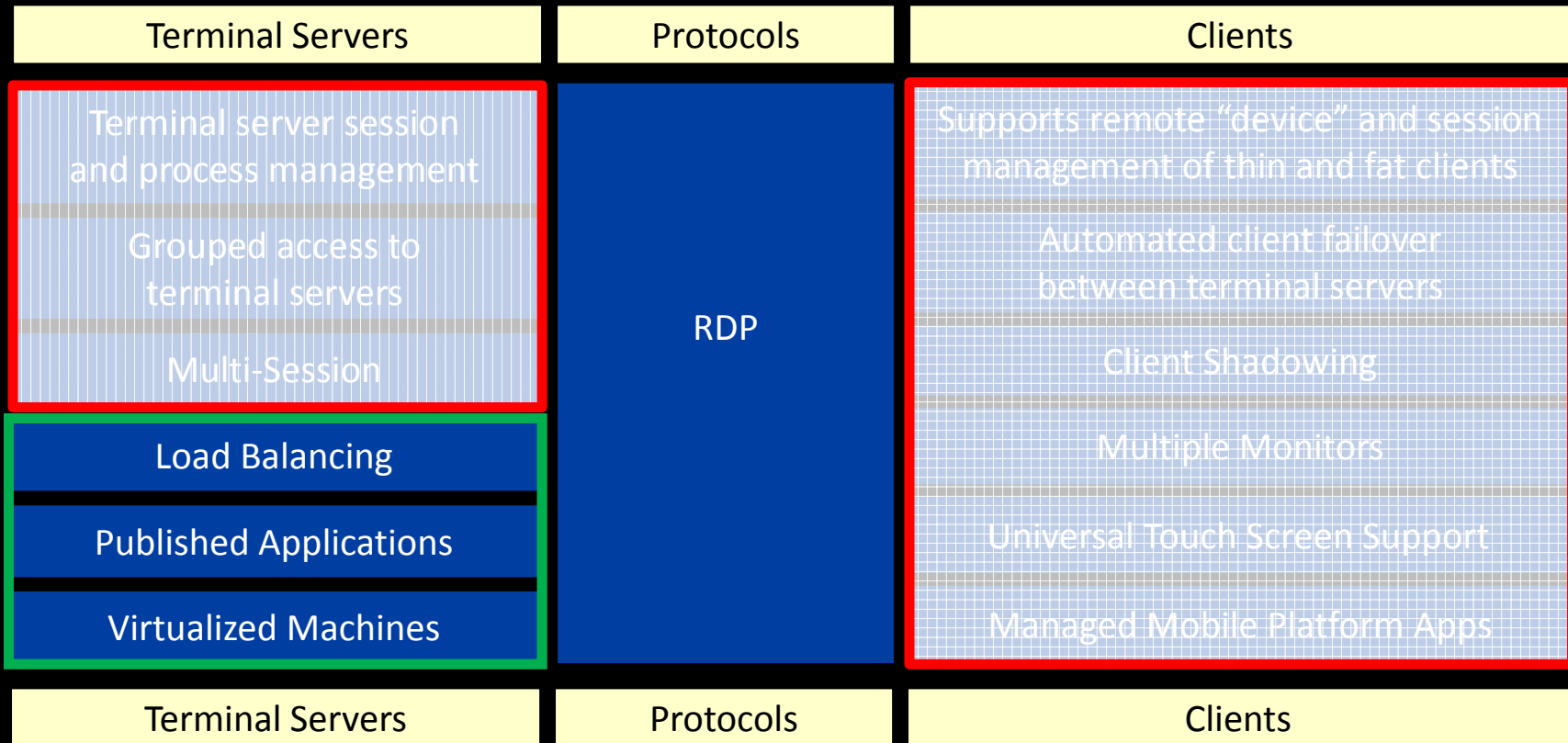
Citrix

- Alternative Terminal Server Management
- Doesn't Manage the Clients

Terminal Servers	Protocols	Clients
Terminal server session and process management	ICA only	Supports remote "device" and session management of thin and fat clients
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Load Balancing		Multiple Monitors
Published Applications		Universal Touch Screen Support
Virtualized Machines		Managed Mobile Platform Apps
Terminal Servers	Protocols	Clients

VMware View

- Virtual Desktop Management
- Doesn't Manage the Clients



ThinManager Umbrella



ThinManager

Thin Client 'System Management Software' does it all

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Terminal Servers	Protocols	Clients

Increased Reliability

- PCs with hard drives are replaced with industrial hardware without moving parts
- Processing is moved to a central location off the production floor
- Failover and Redundancy provide backups in case of server failure

Increased Control

- Configuration at centralized ThinManager instead at every PC or common thin client
- Deploy and deny application access with ease
- Shadow terminals remotely
- Remote management across the network
- Terminal status, including server assignment, is shown in tree

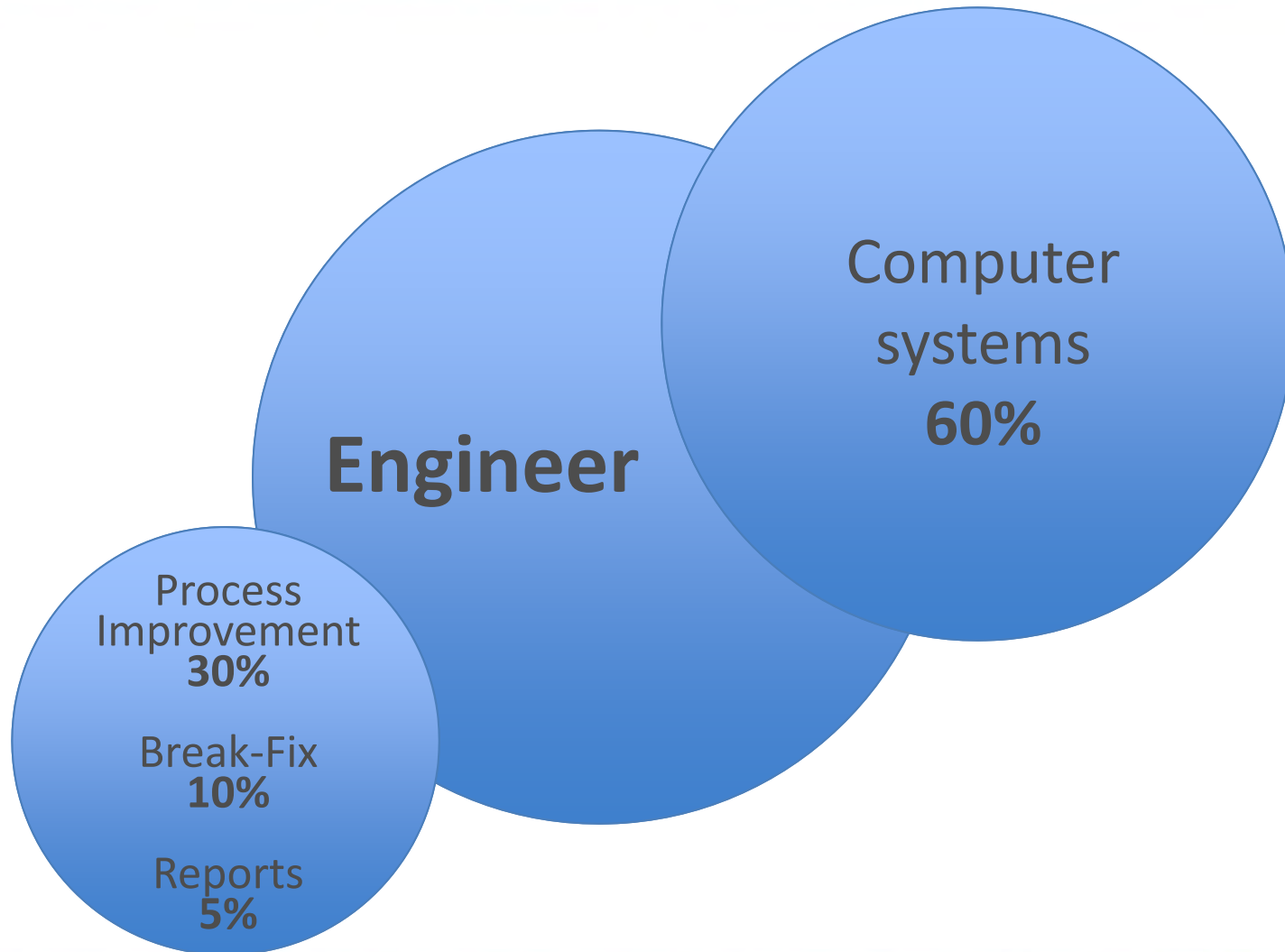
Increases Security

- Easy to configure application access
- Obscure user credentials from operators
- No hard drive with sensitive information to lose or have stolen
- Control installation of rogue programs
 - Processing can be kept in secure room
 - No floppy or CD drives on thin clients
 - USB

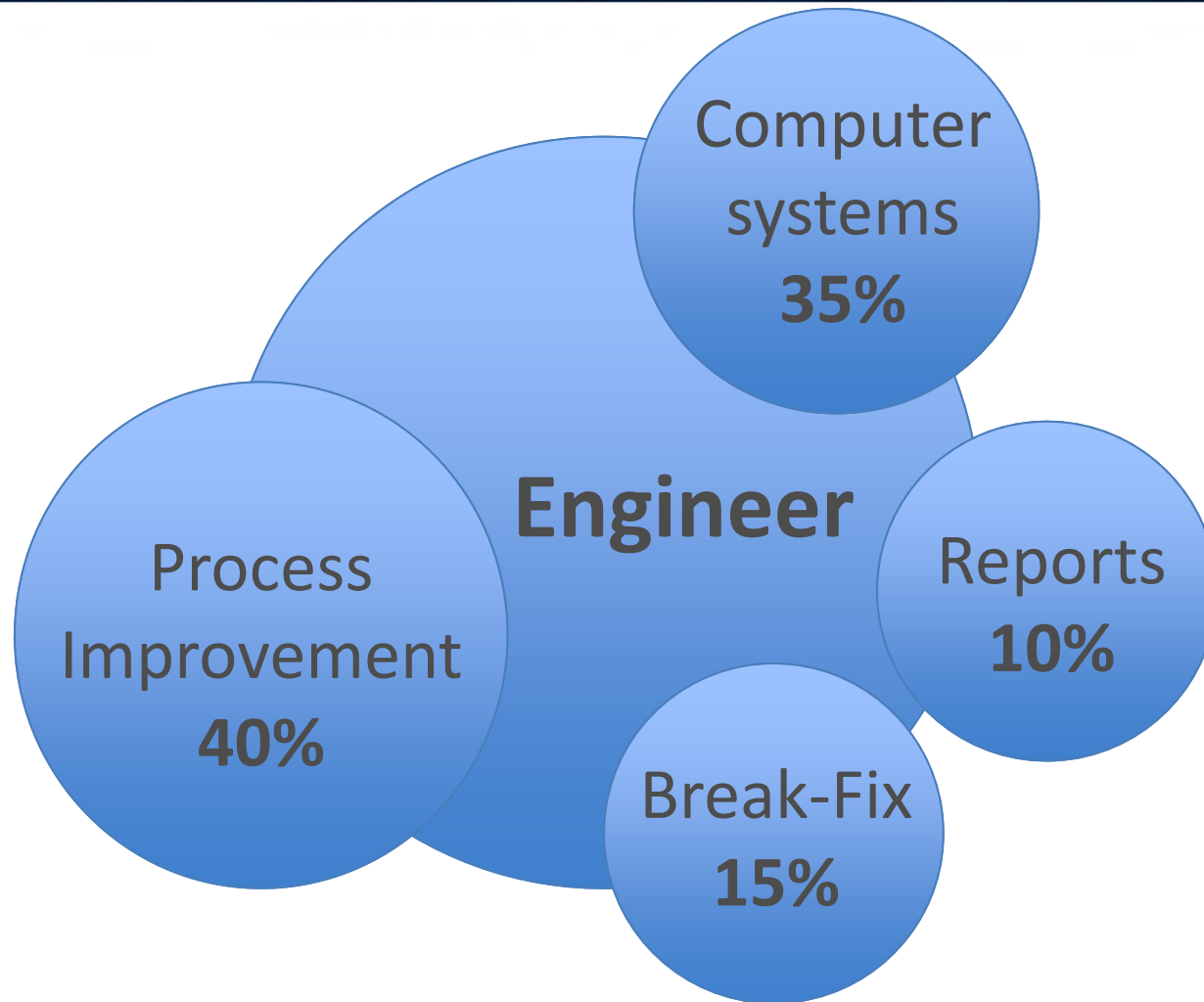
Decreased Maintenance Costs

- Terminal services provides mainframe architecture for the Windows environment
- Decreases hard drives to a few terminal servers
 - 1 terminal server = 25 industrial users
 - 1 terminal server = 100 office users
- Patching and Anti-virus on a few servers
- Control access to apps in ThinManager instead of group policies

Engineering Time Wasted



Engineering Time Well Spent



ActiveX for Advanced Features



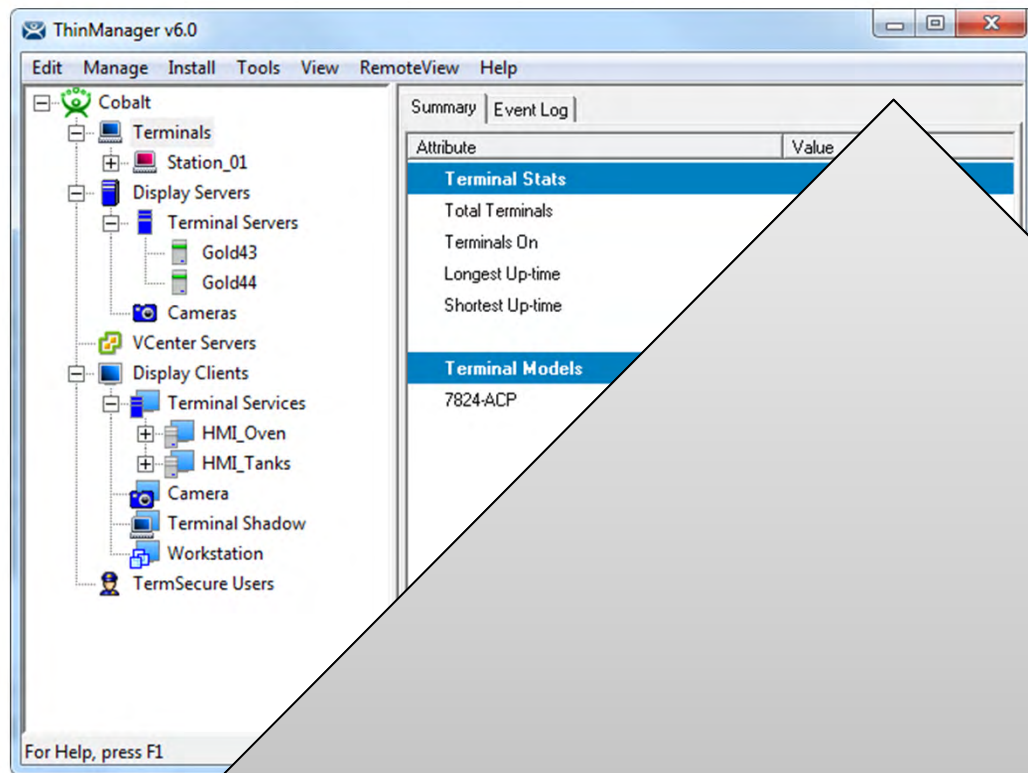
TermMon ActiveX

- Control access to HMI screens by Access Group Membership
- Control access to HMI screens by Location, Terminal, or User
- Send Location, Terminal, or User info to session
- Control camera displays
- Calibrate touch screens
- Switch display clients

Quick Configuration Tips



Configuration Steps

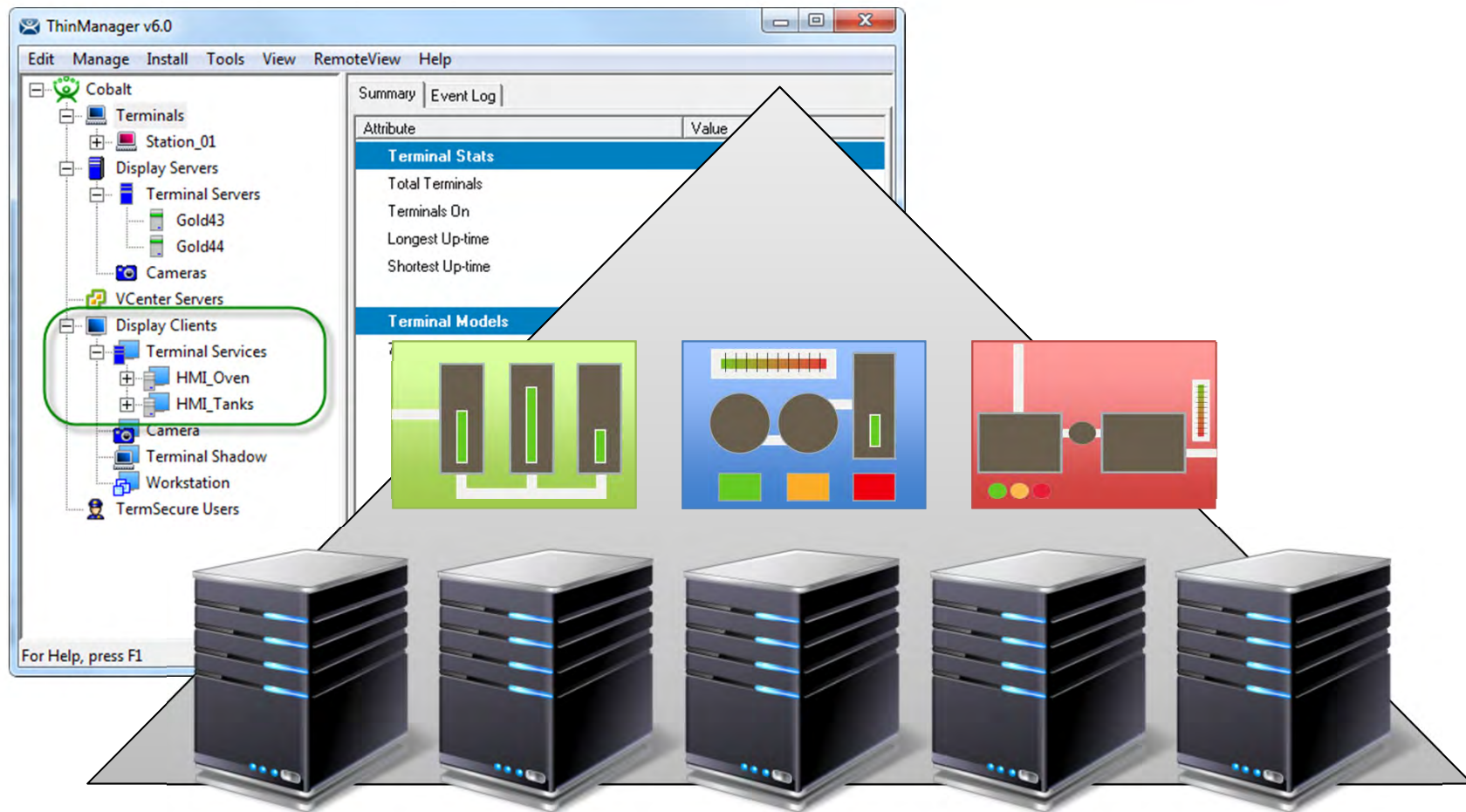


Build & Define the Terminal Servers

The image displays the ThinManager v6.0 software interface. The left sidebar shows a tree view of the network structure, with 'Terminal Servers' containing 'Gold43' and 'Gold44' highlighted by a green oval. The main window shows a 'Summary' tab with a table of terminal statistics and a 'Terminal Models' section listing '7824-ACP'. Below the interface, five server racks are arranged in a row, with a large grey triangle pointing downwards from the interface towards them.

Attribute	Value
Terminal Stats	
Total Terminals	
Terminals On	
Longest Up-time	
Shortest Up-time	
Terminal Models	
7824-ACP	

Install & Define the Applications



Configure the Terminal

The image displays the ThinManager v6.0 software interface. The left sidebar shows a tree view of the configuration hierarchy under 'Cobalt', with 'Terminals' selected. The main window shows the configuration for 'Station_01', including 'Terminal Stats' and 'Terminal Models'. Below the interface, a server rack is shown with five server units, and a monitor is positioned above it.

ThinManager v6.0

Edit Manage Install Tools View RemoteView Help

Cobalt

- Terminals
 - Station_01
- Display Servers
 - Terminal Servers
 - Gold43
 - Gold44
 - Cameras
 - VCenter Servers
 - Display Clients
 - Terminal Services
 - HMI_Oven
 - HMI_Tanks
 - Camera
 - Terminal Shadow
 - Workstation
 - TermSecure Users

Summary | Event Log |

Attribute

Terminal Stats

- Total Terminals
- Terminals On
- Longest Up-time
- Shortest Up-time

Terminal Models

For Help, press F1



ThinManager **Platform**

GOING MOBILE

ACP

www.thinmanager.com

Phase 4 – Mobile Devices



THINMANAGER

RELEASE ADVANCE



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But Everyone does RDP to tablets...

RDP is RDP

- Locally configured
- Limited functionality

Relevance is a tool set

- Increases security
- Streamlines visibility & operations
- Offers greater flexibility in production planning
- Eliminates the need to code a mobile app
- More than just a mobile connection



Management of Mobility?

You need a platform to manage this mixed use environment and provide a path into the mobile future.



ThinManager

Thank You

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