




IT for the Rest of Us

Technology information for Reference and Instruction Librarians whose primary job is not maintaining the hardware and software on your desktop, Information Commons and/or classroom

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Faster than the speed of....





Today

- IT behind the scenes
 - Things that can be helpful to know
 - What's coming, if it's not already here
 - Questions
- 

'The Image'




Computing distribution to the masses



Enterprise Environment - Campus

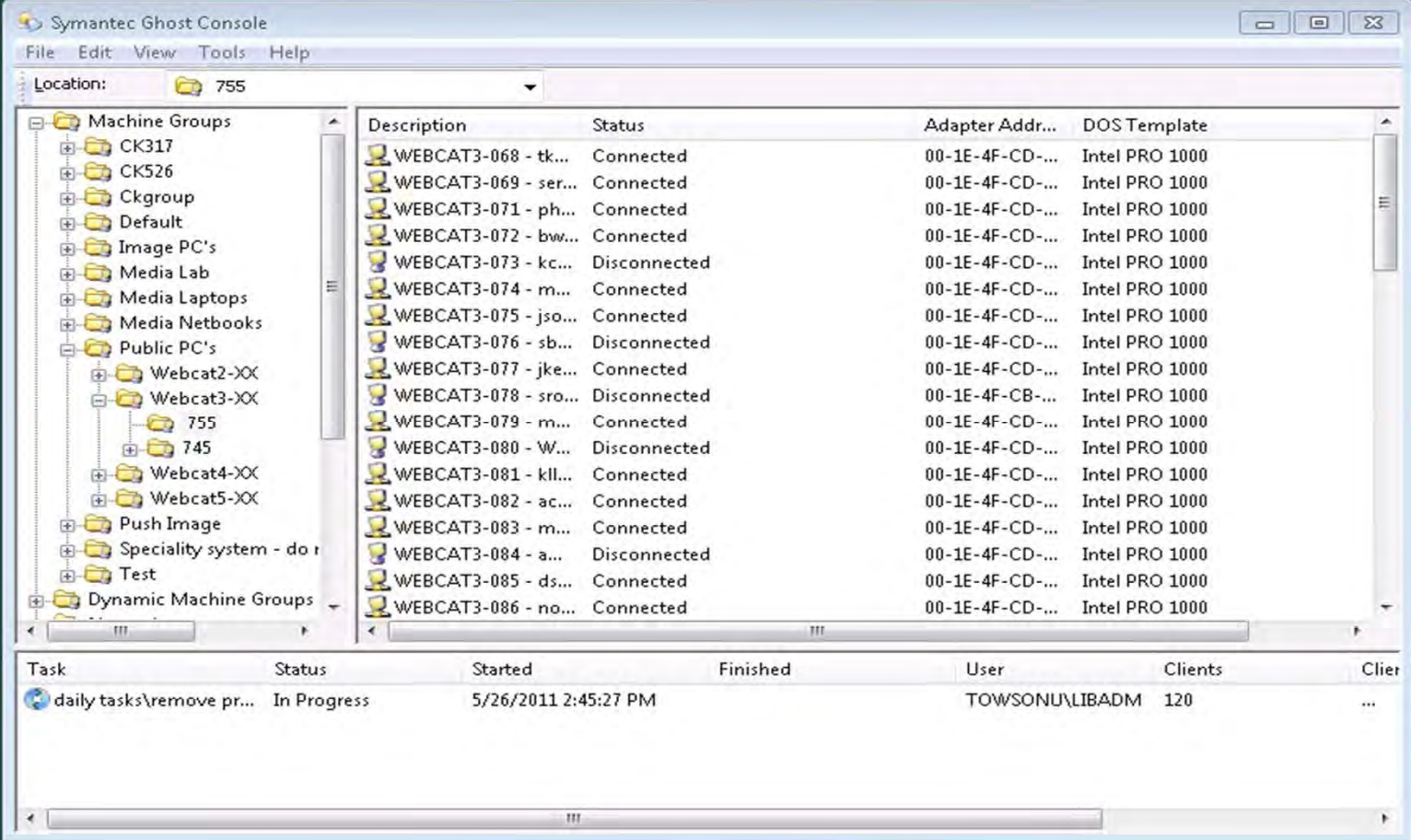
Microsoft (MS)

System Center Configuration Manager (SCCM)

- OS deployment
 - MS software update management
 - Software distribution
 - Power management
 - Asset tracking
 - Compliance management
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Enterprise Environment Classrooms/Labs

- Imaging
 - AKA: ghost, ghosting, ghosted re-ghost(ed)



The screenshot displays the Symantec Ghost Console interface. The left pane shows a tree view of machine groups, with '755' selected under 'Webcat3-XX'. The main pane shows a list of machines with columns for Description, Status, Adapter Addr..., and DOS Template. The bottom pane shows a task log with one entry: 'daily tasks\remove pr...' in progress, started on 5/26/2011 at 2:45:27 PM, by user TOWSONU\LIBADM, affecting 120 clients.

Description	Status	Adapter Addr...	DOS Template
WEBCAT3-068 - tk...	Connected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-069 - ser...	Connected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-071 - ph...	Connected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-072 - bw...	Connected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-073 - kc...	Disconnected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-074 - m...	Connected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-075 - jso...	Connected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-076 - sb...	Disconnected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-077 - jke...	Connected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-078 - sro...	Disconnected	00-1E-4F-CB-...	Intel PRO 1000
WEBCAT3-079 - m...	Connected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-080 - W...	Disconnected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-081 - kll...	Connected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-082 - ac...	Connected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-083 - m...	Connected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-084 - a...	Disconnected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-085 - ds...	Connected	00-1E-4F-CD-...	Intel PRO 1000
WEBCAT3-086 - no...	Connected	00-1E-4F-CD-...	Intel PRO 1000

Task	Status	Started	Finished	User	Clients	Client
daily tasks\remove pr...	In Progress	5/26/2011 2:45:27 PM		TOWSONU\LIBADM	120	...



Image Components



- Applications
 - Default apps
 - App settings
 - Some OS settings (maybe)
 - Scheduled tasks (maybe)
 - Drive mappings (maybe)
 - All users Start Menu
 - All users Task Bar
 - Folder view settings
 - Browser Settings
- 



Image 'Logistics'

- Group Policy
 - Login
 - Access
 - Data storage
 - Application settings
 - Printing
- 



Group Policy

- Configure users
 - Configure computers
 - Centralized management
 - Local or global
 - Global via Active Directory OU (organizational unit)
 - Allow or deny access to over 3000 objects
 - Start menu and Taskbar – 59
 - Security – 178
 - Software installation, deployed printers, scripts, local group policy management, firewalls, wired and wireless network
- 

Administrative Templates

Policy definitions (ADMX files) retrieved from the central store.

Control Panel

Policy	Setting
Force classic Control Panel view	Enabled
Show only specified Control Panel items	Enabled

List of allowed Control Panel items

access.cpl


desk.cpl

Control Panel/Add or Remove Programs

Policy	Setting
Hide Add New Programs page	Enabled
Hide Add/Remove Windows Components page	Enabled
Hide Change or Remove Programs page	Enabled
Hide the "Add a program from CD-ROM or floppy disk" option	Enabled
Hide the "Add programs from Microsoft" option	Enabled
Hide the "Add programs from your network" option	Enabled
Hide the Set Program Access and Defaults page	Enabled
Remove Add or Remove Programs	Enabled
Remove Support Information	Enabled

Control Panel/Display

Policy	Setting
Hide Appearance and Themes tab	Enabled
Hide Desktop tab	Enabled
Hide Screen Saver tab	Enabled
Hide Settings tab	Enabled
Prevent changing wallpaper	Enabled

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- Know the basic user configs
 - ‘greyed-out’ options
 - ‘things’ missing
 - GP changes can have unknown, undesirable results
 - if you know what works and it stops working, GP may be a reason



Login

What happens when the user logs in?

- User profile created
 - default profile by default
 - local to computer
 - path depends on OS
 - roaming profiles generally not used
 - stores user specific settings
 - some settings standardized by default profile
 - some setting managed by Group Policy and /or scripts



Login & Group Policy/Scripts

- Drive mapping of user network drives
- My Documents (or equivalent)
 - folder redirection or not
 - if yes, where
 - local
 - network
 - » what happens if network connection is lost?
- Profile cleanup /deletion
 - when
 - where
 - how
- What about guest login

Data Storage

- Where – local, network, combo?
- How long locally
- Data recovery options
- How apps save data
- How browsers save data

C:\Users\kkazinsk\AppData\Roaming\Microsoft\PowerPoint
C:\Documents and Settings\kkazinsk\Application
Data\Microsoft\PowerPoint

Application Settings

- Changes in app settings
 - can the save path be changed
 - same for all users
- Suggested MS Office settings
 - auto save – 2 minutes
 - auto recover path – same for everyone on local machine
 - Default file saving
 - folder redirection - networked homeshare or fileshare
 - what happens if network is down?
 - folder on local machine

Browsers

- Manage user info differently
- Focus on the default browser first
- How are attachments handled
- Group policy control settings (IE)
- Save path especially with attachments
- 'Behavior' may be different depending on user 'status'



Printing/printers

- **Printing Systems**
 - What does it look like
 - when it works
 - when it doesn't
- **Printer monitoring**
 - HP webjet admin
 - toner, paper, errors
 - Monitoring apps for system itself
 - print queues, routing of print jobs



Here Now & On The Horizon

- Tablets and phones
 - network connectivity
 - printing options
 - library resource access
 - Virtualization
 - server
 - desktop
 - application
- 




Desktop

- Client hosted
 - virtual environment on the client pc for legacy apps
 - client hypervisor – running multiple VM's on client machine
- Server hosted
 - OS, apps and data on kept on servers
 - VDI- virtual desktop infrastructure



Application

- Client has OS installed
 - Applications are virtual
 - stored on server
 - never installed on client pc
 - software is either streamed or cached locally
 - requires App-V install on client pc
- 




IT Perspective *

Introduction to Desktop Virtualization

<http://www.youtube.com/watch?v=gP9S-PaXZtM>

* Opinion of sales person






Zero Client *

what is a Zero Client Computing for Desktop
Virtualization

<http://www.youtube.com/watch?v=Gxx0tAUTrvI>

* Opinion of sales person



WIIFMU *



- Security
 - Minimize virus/malware
- Management
- Faster updates to those things needing frequent updates
- Offer all apps anywhere in the library
- Legacy app support *sometimes*
- Access – failover / replication

* what's in it for my users



Disadvantages

- **Bandwidth**
 - streaming audio and video
 - likelihood of many users logging in or hitting the same app at the same time
- **Packaging**
 - apps must be packaged before deployment
 - some apps not easy to virtualize
- **Resources**
 - backend infrastructure
 - CPU/ storage
 - IT personnel training
- **Complexity**
- **Cost cost, cost, cost**

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- Know
 - End users needs / issues
 - deal breakers
 - compromises
 - work around
 - Tools for support
 - Start small, especially if VM new to the organization
- 



Questions?

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