



# Ghost Solution Suite 3.3 Deep Dive

**Rob Barker**

Product Management



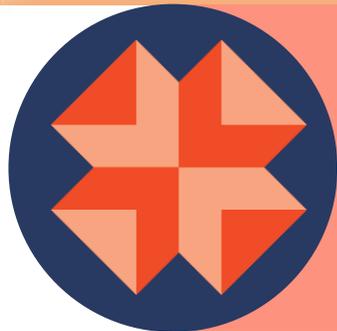
# Ghost Solution Suite 3.3



MODERN WEB CONSOLE

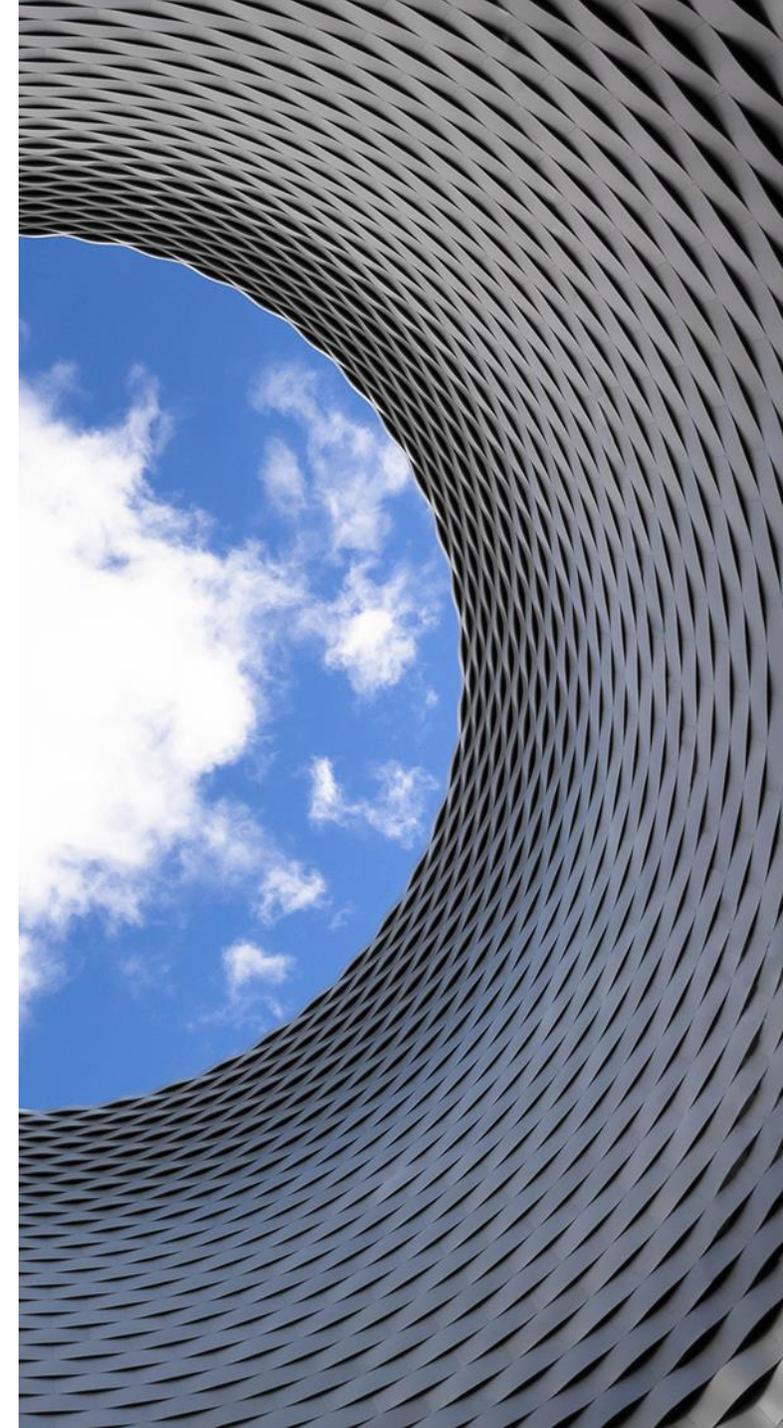


GUIDED WIZARDS



SPEED

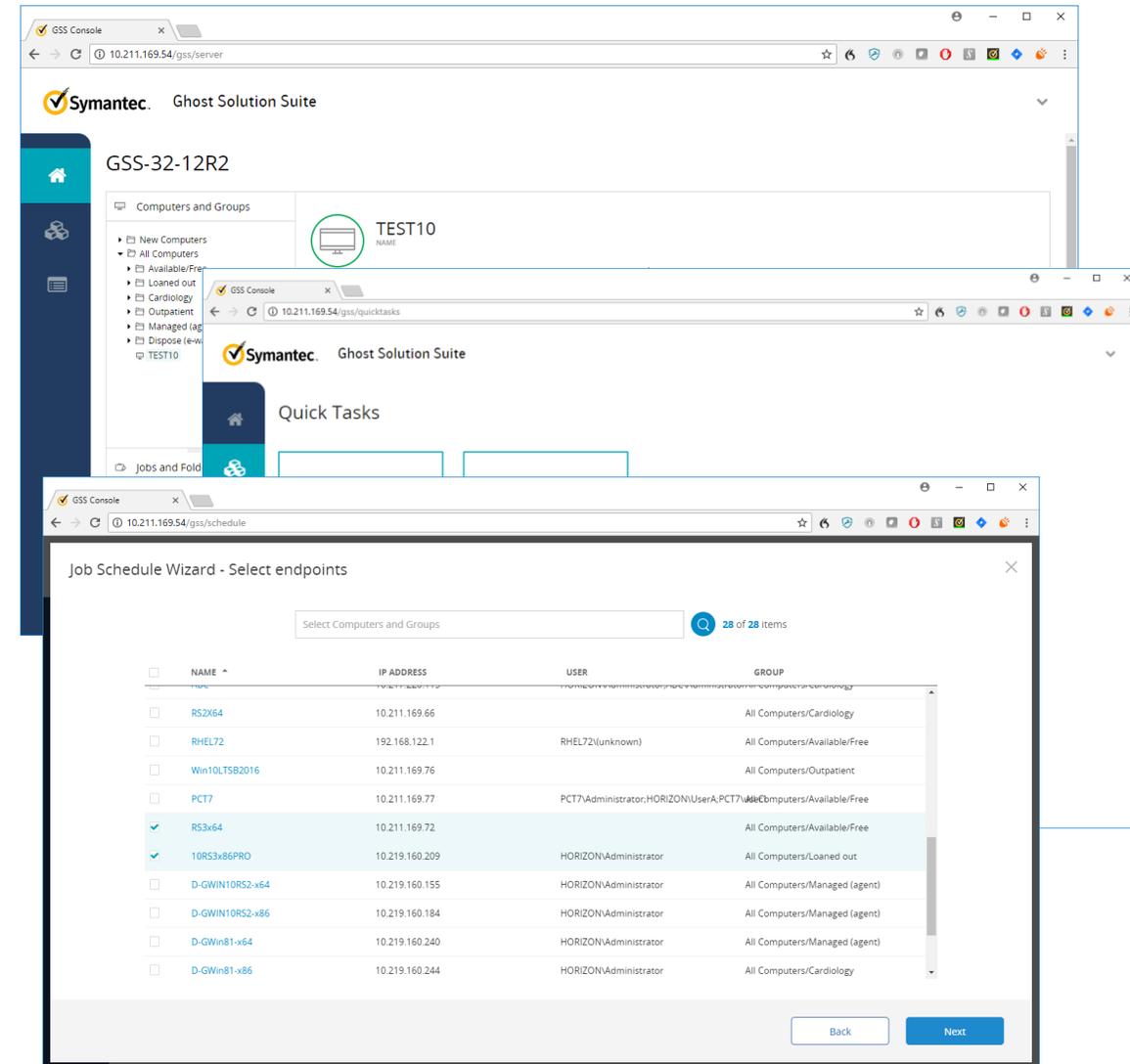
# Web Console



# GSS Web Console overview



- Additional new Web console
  - Available in addition to the thick console
  - Access from any browser
  - Large number of users can access simultaneously
  - Obeys security permissions in existing console
  - All actions visible on the thick console
- Simple quick tasks for common actions
  - Common tasks represented by simple, easy to use flows which guide the user
  - Easy for user to find the job they need
  - Modern style to improve usage satisfaction
- Vastly improved user experience
  - Step by step flow
  - Very small learning curve
  - Reduces mistakes



# GSS Web Console – Computer View



**Symantec Ghost Solution Suite**

GSS-32-12R2

Computers and Groups

- New Computers
- All Computers
  - Available/Free
  - Loaned out
  - Cardiology
  - Outpatient
  - Managed (agent)
  - Dispose (e-waste/recycle)
  - TEST10

Jobs and Folders

- System Jobs
- Samples
- RU5-Jobs
- RU6-Jobs
- RU6-PCT
- Linux-Tests
- Win10-LTSB-2015-x86
- Win10LTSB-2015
- \_Applications
- PGFolder

**TEST10**  
NAME

TEST10  
FULL QUALIFIED NAME

005056806268  
MAC ADDRESS

Windows 10 Enterprise 10.0.15063  
OPERATING SYSTEM

10.219.160.222  
IP ADDRESS

[Schedule Job](#)

**Jobs**

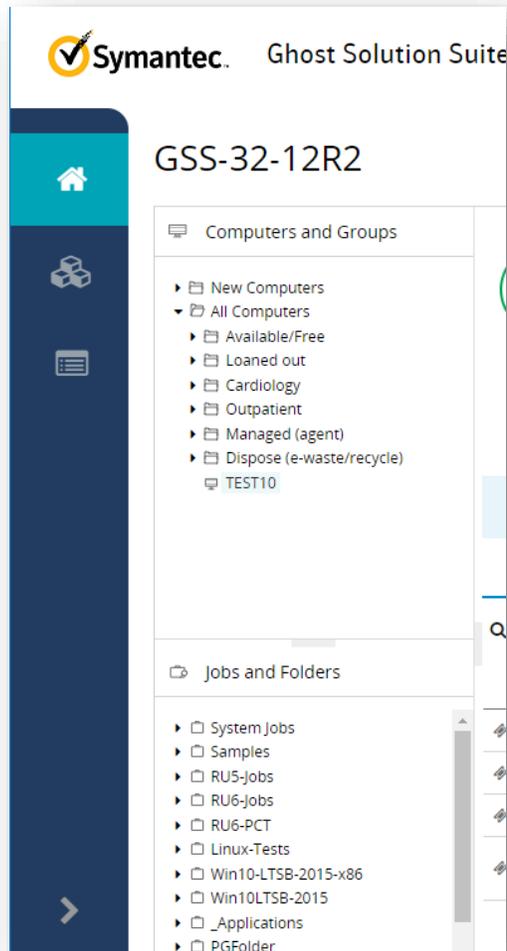
Search 4 of 4 items

JOB NAME	JOB FOLDER	SCHEDULED AT	STATUS
Deploy-Image-SOI-Taken		2018-06-04 16:22:00	Configuring computer...
Wait		2018-06-04 14:43:00	Wait task completed successfully.
Create-Image-Sysprep-Win10-SOI		2018-06-04 12:55:00	Imaging process complete
Install Windows Automation Folder: TEST10	System Jobs/Install Jobs	2018-06-04 12:53:00	Package installation complete

# GSS Web Console – Computer View

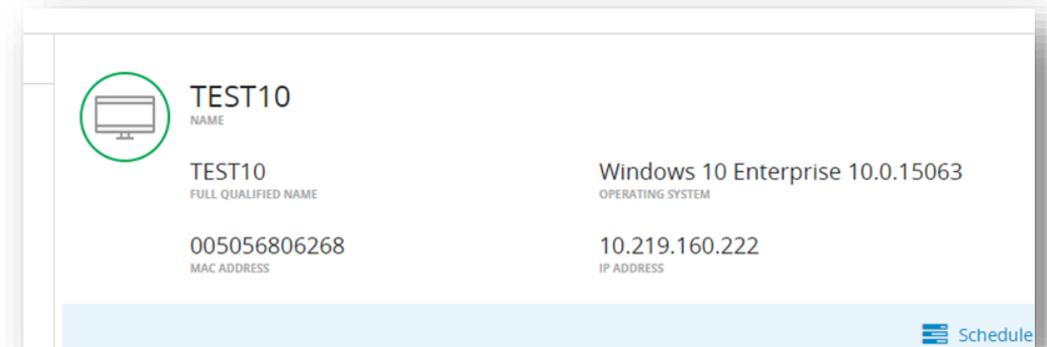


## Full console look and feel maintained



- Ensures familiarity for existing customers
- Folder structure often used as a workflow through different stages of deployment

## Basic Inventory & Status



- Basic Inventory at users fingertips
- Color indicates device status (connected, disconnected, in automation)

# GSS Web Console – Computer View



## Easily schedule Jobs

SCHEDULED AT	STATUS
2018-06-04 16:22:00	Configuring computer...
2018-06-04 14:43:00	Wait task completed successfully.
2018-06-04 12:55:00	Imaging process complete
2018-06-04 12:53:00	Package installation complete

- Schedule Job button allows jobs to be easily scheduled
- Works with individual machines and groups of machines

## View executed jobs

JOB NAME	JOB FOLDER	SCHEDULED AT	STATUS
Deploy-Image-SOI-Taken		2018-06-04 16:22:00	Configuring computer...
Wait		2018-06-04 14:43:00	Wait task completed successfully.
Create-Image-Sysprep-Win10-SOI		2018-06-04 12:55:00	Imaging process complete
Install Windows Automation Folder: TEST10	System Jobs/Install Jobs	2018-06-04 12:53:00	Package installation complete

- See all jobs executed on a device including scheduled date/time and current status
- Find a specific job using the search field
- Order columns

# GSS Web Console – Jobs View



**Computers and Groups**

- New Computers
- All Computers

**Jobs and Folders**

- Imaging
- Imaging
- Migrations
- Misc Jobs
  - Power Control
  - Powershell
    - Copy WLogevent to client
    - DAgent Upgrade
    - Install MSI 2.0 runtime
    - Update AClient
  - Scripted Os Installs
  - Scripts

**DAgent Upgrade**

TASK	DETAILS
Copy File to	.\Agents\AClient\dagent.msi
Copy File to	.\Agents\AClient\dagent_ia64.msi
Copy File to	.\Agents\AClient\dagent_x64.msi
Run Script	(embedded)
Run Script	(embedded)
Run Script	(embedded)

[Schedule Job](#)

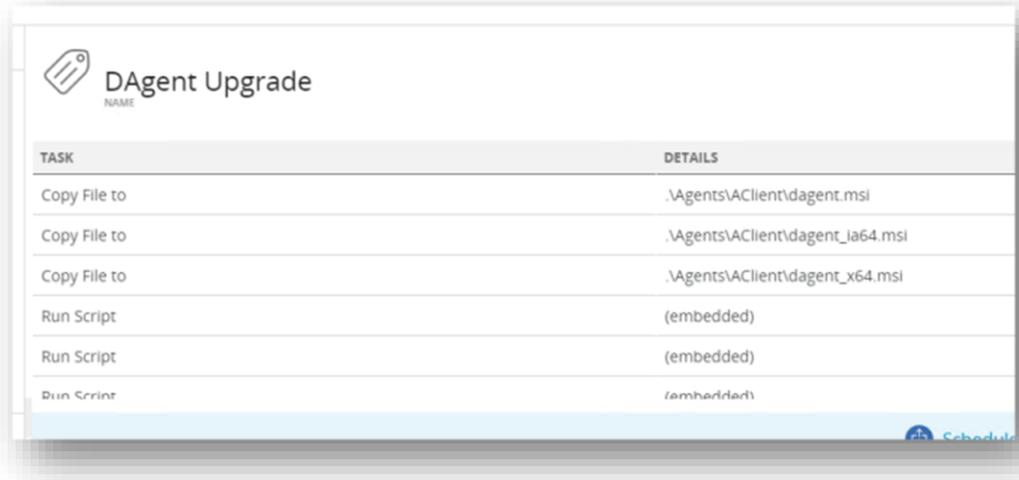
**Computers**

Search  4 of 4 items

COMPUTER	GROUP	SCHEDULED AT	STATUS
WIN7-64		2018-10-15 18:36:19	Script execution complete
10RS3x86PRO			Sending Wake-On-Lan signal...
RS2X64		2018-10-15 18:36:20	Script execution complete
O-2013			Sending Wake-On-Lan signal...

# GSS Web Console – Jobs View

## See tasks within a job

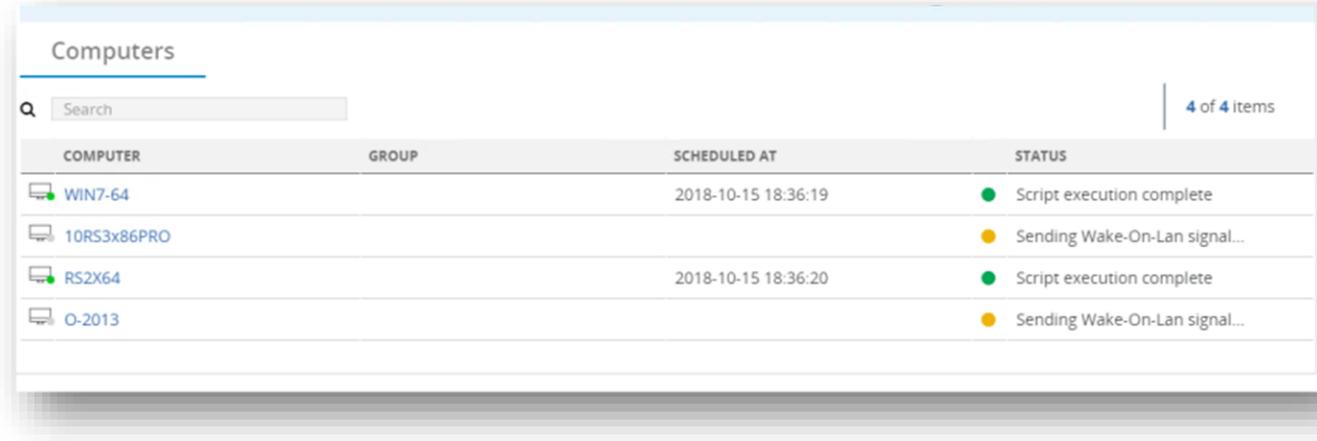


The screenshot shows the 'DAgent Upgrade' job details. It features a table with two columns: 'TASK' and 'DETAILS'. The tasks listed are 'Copy File to' and 'Run Script', with their respective file paths and details.

TASK	DETAILS
Copy File to	.\Agents\AClient\dagent.msi
Copy File to	.\Agents\AClient\dagent_la64.msi
Copy File to	.\Agents\AClient\dagent_x64.msi
Run Script	(embedded)
Run Script	(embedded)
Run Script	(embedded)

- See all tasks in the current job to confirm the job is correct

## View executed jobs

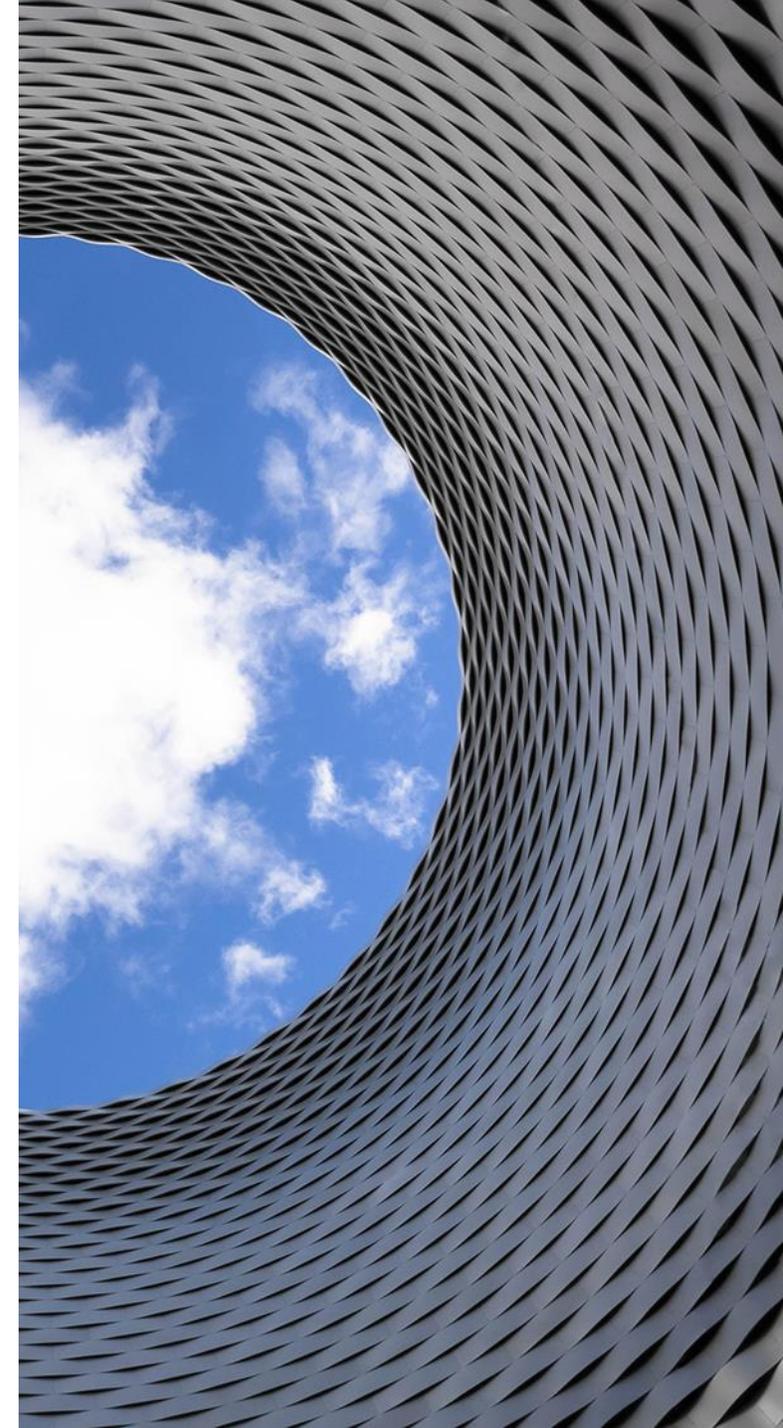


The screenshot shows the 'Computers' view in the GSS Web Console. It includes a search bar and a table with columns for 'COMPUTER', 'GROUP', 'SCHEDULED AT', and 'STATUS'. The table lists four computers with their respective scheduled times and execution statuses.

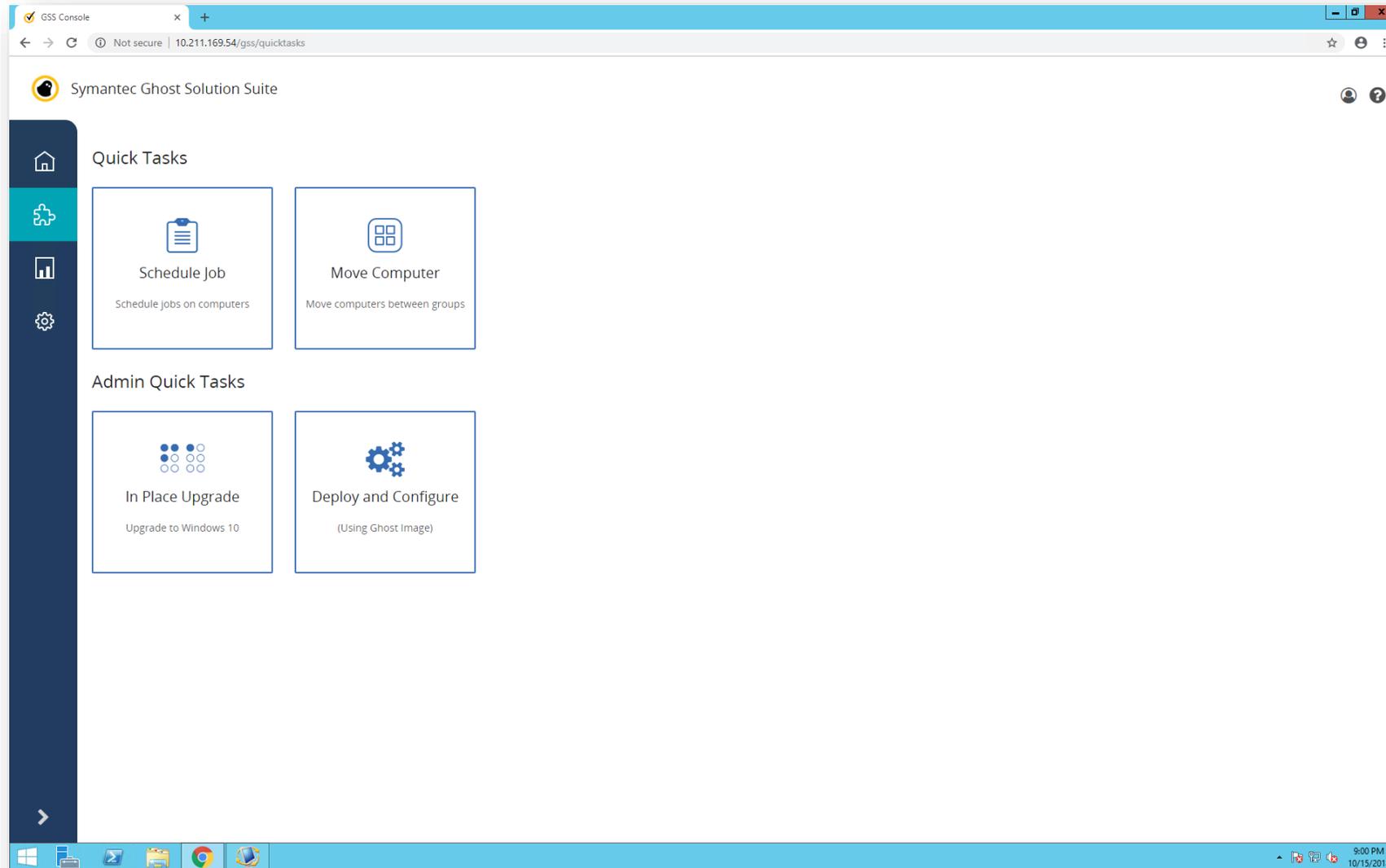
COMPUTER	GROUP	SCHEDULED AT	STATUS
WIN7-64		2018-10-15 18:36:19	Script execution complete
10RS3x86PRO			Sending Wake-On-Lan signal...
RS2X64		2018-10-15 18:36:20	Script execution complete
O-2013			Sending Wake-On-Lan signal...

- See all computers the job has been executed on including scheduled date/time and current status
- Find a specific computer using the search field
- Order columns

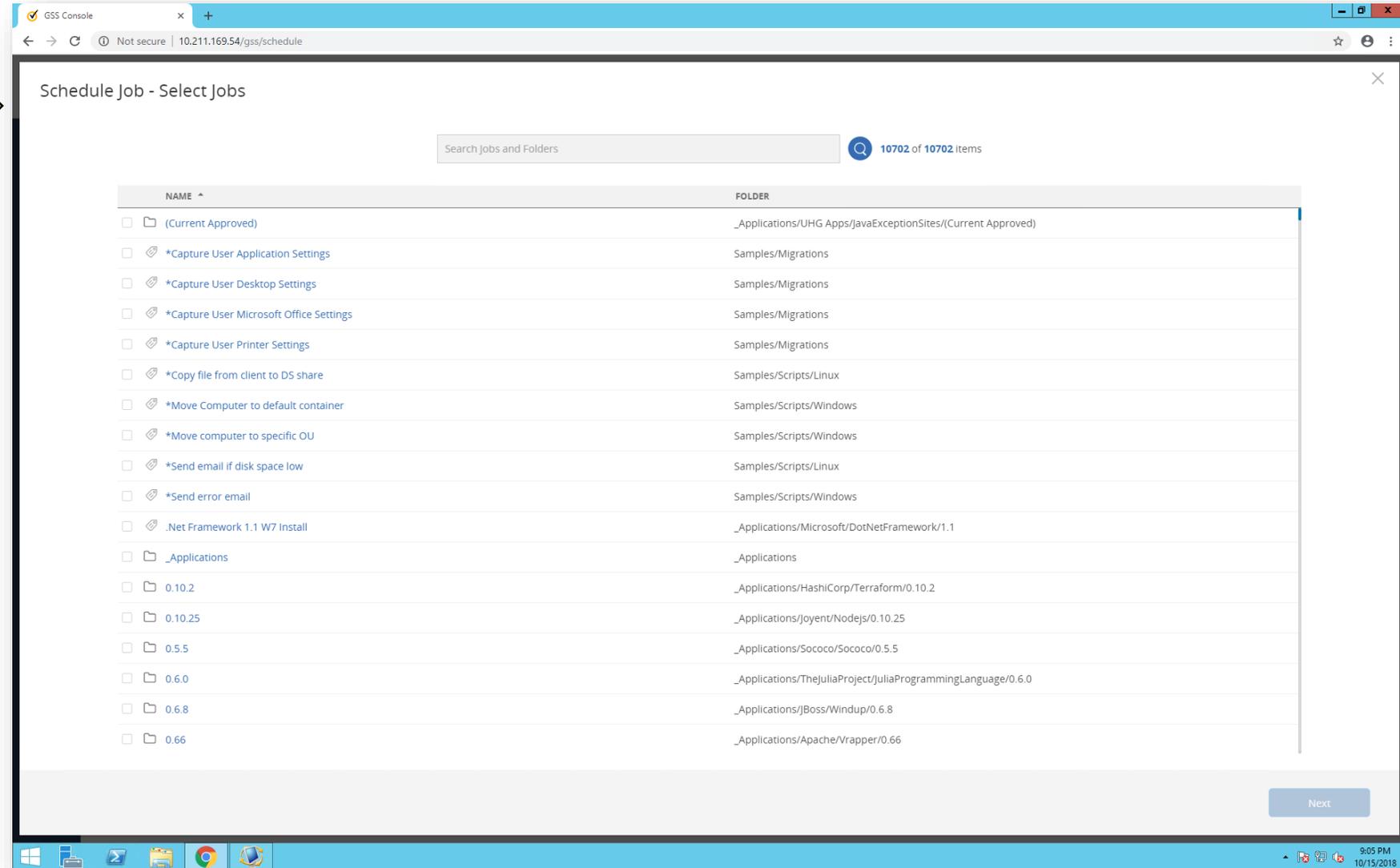
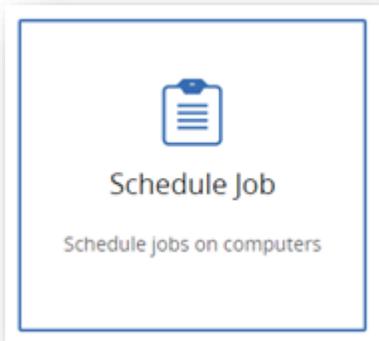
# Quick Tasks



# GSS Web Console – Quick Tasks



# GSS Web Console – Schedule Job



NAME ^	FOLDER
<input type="checkbox"/> (Current Approved)	._Applications/UHG Apps/JavaExceptionSites/(Current Approved)
<input type="checkbox"/> *Capture User Application Settings	Samples/Migrations
<input type="checkbox"/> *Capture User Desktop Settings	Samples/Migrations
<input type="checkbox"/> *Capture User Microsoft Office Settings	Samples/Migrations
<input type="checkbox"/> *Capture User Printer Settings	Samples/Migrations
<input type="checkbox"/> *Copy file from client to DS share	Samples/Scripts/Linux
<input type="checkbox"/> *Move Computer to default container	Samples/Scripts/Windows
<input type="checkbox"/> *Move computer to specific OU	Samples/Scripts/Windows
<input type="checkbox"/> *Send email if disk space low	Samples/Scripts/Linux
<input type="checkbox"/> *Send error email	Samples/Scripts/Windows
<input type="checkbox"/> .Net Framework 1.1 W7 Install	._Applications/Microsoft/DotNetFramework/1.1
<input type="checkbox"/> _Applications	._Applications
<input type="checkbox"/> 0.10.2	._Applications/HashiCorp/Terraform/0.10.2
<input type="checkbox"/> 0.10.25	._Applications/Joyent/Nodejs/0.10.25
<input type="checkbox"/> 0.5.5	._Applications/Sococo/Sococo/0.5.5
<input type="checkbox"/> 0.6.0	._Applications/TheJuliaProject/JuliaProgrammingLanguage/0.6.0
<input type="checkbox"/> 0.6.8	._Applications/JBoss/Windup/0.6.8
<input type="checkbox"/> 0.66	._Applications/Apache/Vrapper/0.66

- First select the job(s)
- Supports scheduling folders
- Search quickly locates jobs using simple and inclusive search parameters
- Multiselect available
- All selected jobs appear in a 'basket' in the bottom left

# GSS Web Console – Schedule Job



- Next select the computer(s)
- Supports scheduling groups
- Search quickly locates computers using simple and inclusive search parameters
- Multiselect available
- All selected computers appear in a 'basket' in the bottom left

Schedule Job - Select endpoints

Select Computers and Groups 19 of 19 items

NAME ^	IP ADDRESS	ENDPOINT(S) COUNT	USER	GROUP
<input type="checkbox"/> 10RS3x86PRO	10.219.160.237	1		
<input type="checkbox"/> All Computers		10		
<input type="checkbox"/> Available/Free		1		All Computers/Available/Free
<input type="checkbox"/> Cardiology		1		All Computers/Cardiology
<input type="checkbox"/> Dispose (e-waste/recycle)		1		All Computers/Dispose (e-waste/recycle)
<input checked="" type="checkbox"/> GWIN10RS2-x86	10.219.161.50	1	GWIN10RS2-X86\Administrator	All Computers/Outpatient
<input checked="" type="checkbox"/> GWIN10RU2-x64	10.219.161.85	1		All Computers/Managed (agent)
<input checked="" type="checkbox"/> GWIN7-X64	10.219.161.53	1	GWIN7-X64\Administrator	All Computers/Loaned out
<input checked="" type="checkbox"/> GWin7x64UEFI	10.219.161.80	1	GWin7x64UEFI\Administrator	All Computers/Dispose (e-waste/recycle)
<input type="checkbox"/> GWin81-x64	10.219.161.44	1	GWin81-x64\Administrator	All Computers/Cardiology
<input type="checkbox"/> GWin81-x86	10.219.161.52	1	GSS32\Swapnil_Patil	All Computers/Available/Free
<input type="checkbox"/> Loaned out		1		All Computers/Loaned out
<input type="checkbox"/> Managed (agent)		1		All Computers/Managed (agent)
<input type="checkbox"/> New Computers		1		New Computers
<input type="checkbox"/> O-2013	10.219.160.241	1		
<input type="checkbox"/> Outpatient		1		All Computers/Outpatient
<input type="checkbox"/> R52X64	10.211.169.8	1		

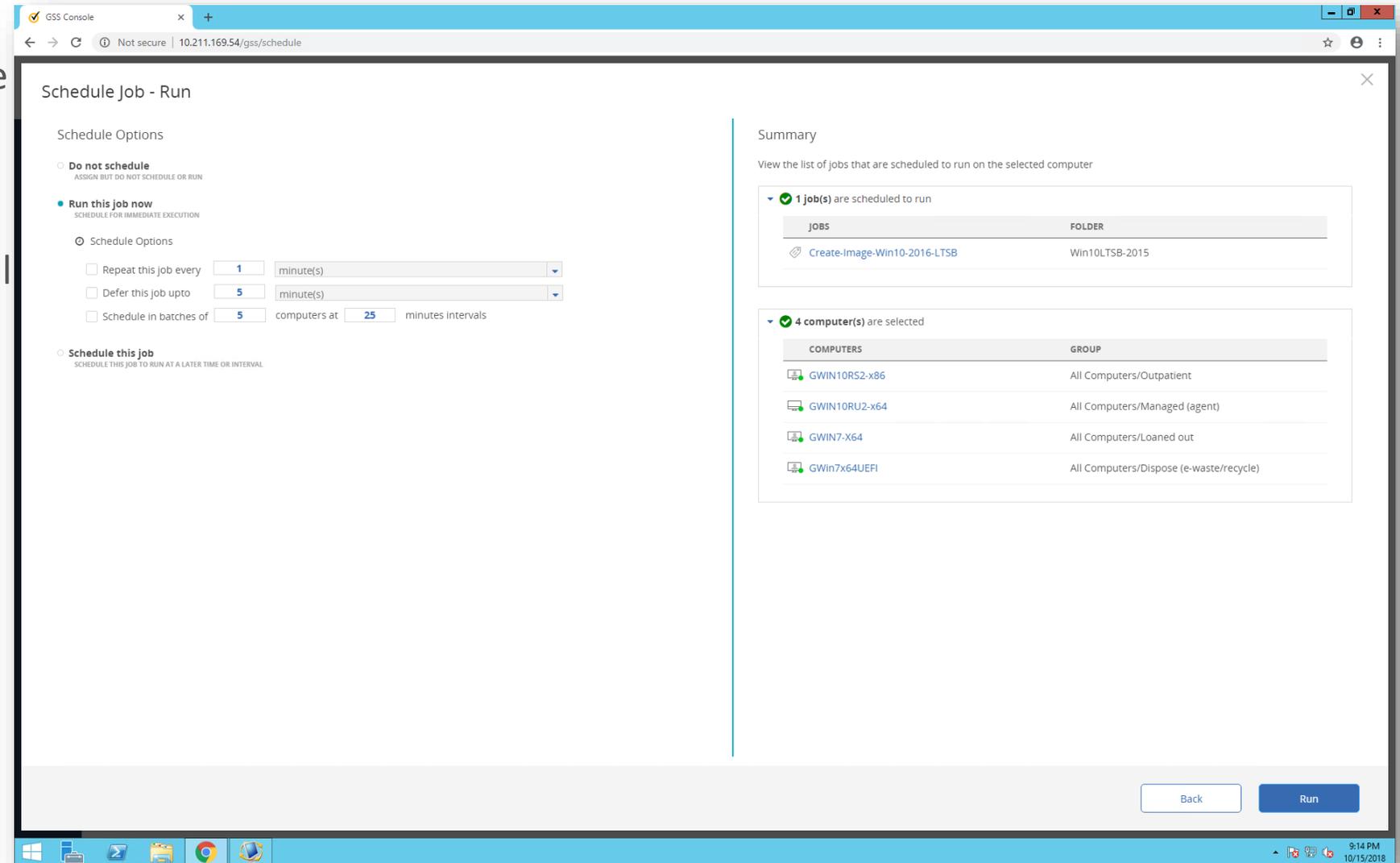
4 computer(s) or group(s) selected [Show](#) ^

[Back](#) [Next](#)

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# GSS Web Console – Schedule Job

- The schedule can now be defined
- The selected jobs and computers are displayed in the right panel for final review. This helps to avoid scheduling mistakes
- Run the job!
- These steps are very simple to learn and very efficient across multiple users



Schedule Job - Run

Schedule Options

Do not schedule  
ASSIGN BUT DO NOT SCHEDULE OR RUN

Run this job now  
SCHEDULE FOR IMMEDIATE EXECUTION

Schedule this job  
SCHEDULE THIS JOB TO RUN AT A LATER TIME OR INTERVAL

Schedule Options

Repeat this job every  minute(s)

Defer this job upto  minute(s)

Schedule in batches of  computers at  minutes intervals

Summary

View the list of jobs that are scheduled to run on the selected computer

1 job(s) are scheduled to run

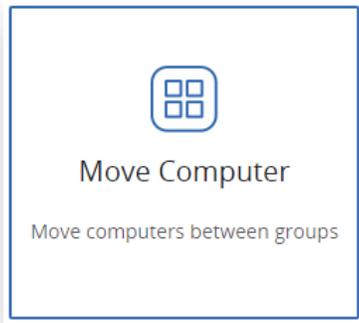
JOBS	FOLDER
Create-Image-Win10-2016-LTSB	Win10LTSB-2015

4 computer(s) are selected

COMPUTERS	GROUP
GWIN10RS2-x86	All Computers/Outpatient
GWIN10RU2-x64	All Computers/Managed (agent)
GWIN7-X64	All Computers/Loaned out
GWIN7x64UEFI	All Computers/Dispose (e-waste/recycle)

Back Run

# GSS Web Console – Move Computer



GSS Console | Not secure | 10.211.169.54/gss/movecomputer

### Move Computers - Select source computers and groups

Select Computers and Groups 19 of 19 Items

NAME ^	IP ADDRESS	ENDPOINT(S) COUNT	USER	GROUP
<input type="checkbox"/> 10RS3x86PRO	10.219.160.237	1		
<input type="checkbox"/> All Computers		10		
<input type="checkbox"/> Available/Free		1		All Computers/Available/Free
<input type="checkbox"/> Cardiology		1		All Computers/Cardiology
<input type="checkbox"/> Dispose (e-waste/recycle)		1		All Computers/Dispose (e-waste/recycle)

GSS Console | Not secure | 10.211.169.54/gss/movecomputer

### Move Computers - Select target group

Select Group

GROUP ^	PATH
<input type="radio"/> All Computers	All Computers
<input type="radio"/> Available/Free	All Computers
<input checked="" type="radio"/> Cardiology	All Computers
<input type="radio"/> Dispose (e-waste/recycle)	All Computers
<input type="radio"/> Loaned out	All Computers
<input type="radio"/> Managed (agent)	All Computers
<input type="radio"/> New Computers	New Comput...

1 group selected

GSS Console | Not secure | 10.211.169.54/gss/movecomputer

### Move Computers - Summary

List of computers that will be moved to the selected group.

1 computer(s) are ready to move

SOURCE	GROUP
RS2X64	

Selected group

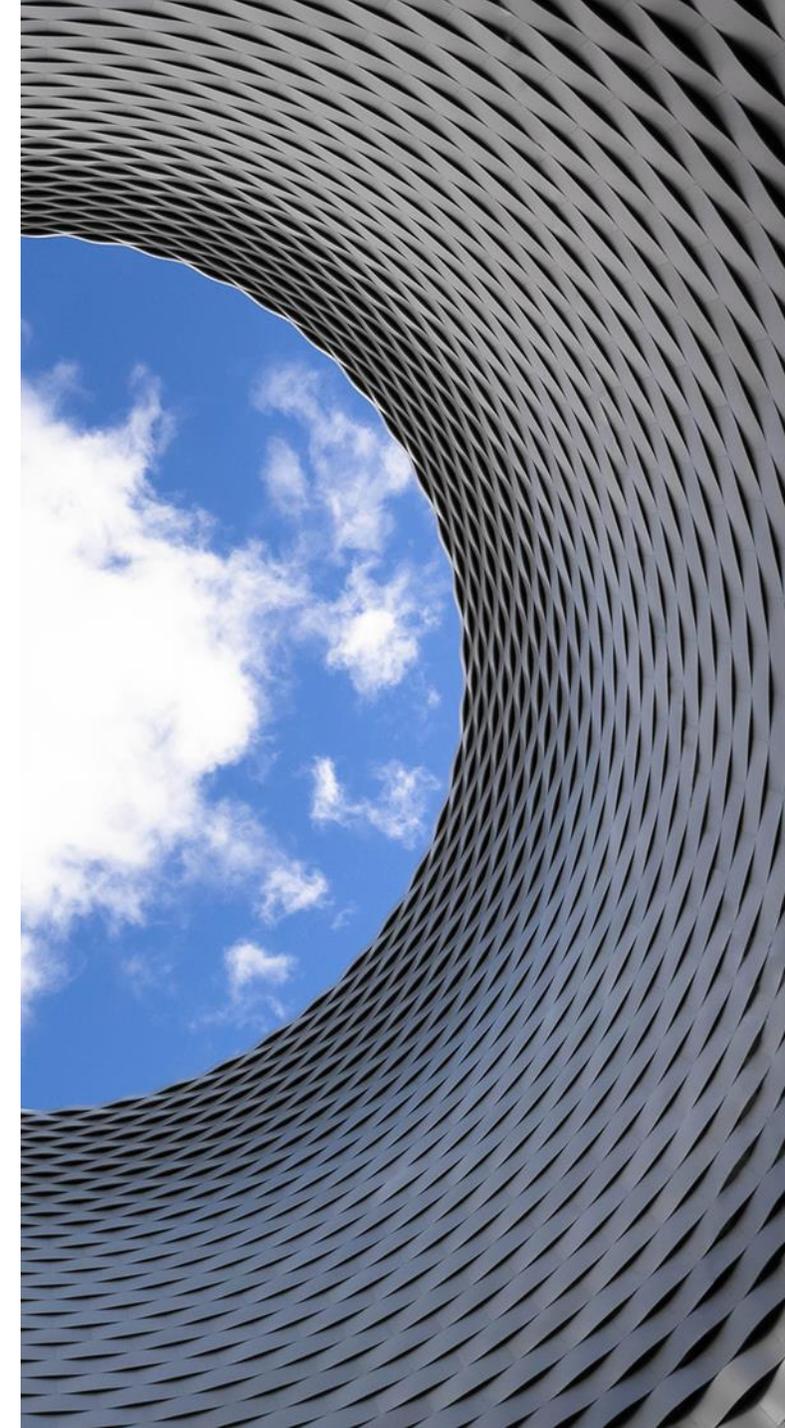
TARGET	GROUP
Cardiology	All Computers/Cardiology

Next

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- Allows computers to be moved to different groups
- Similar flow to scheduling a job

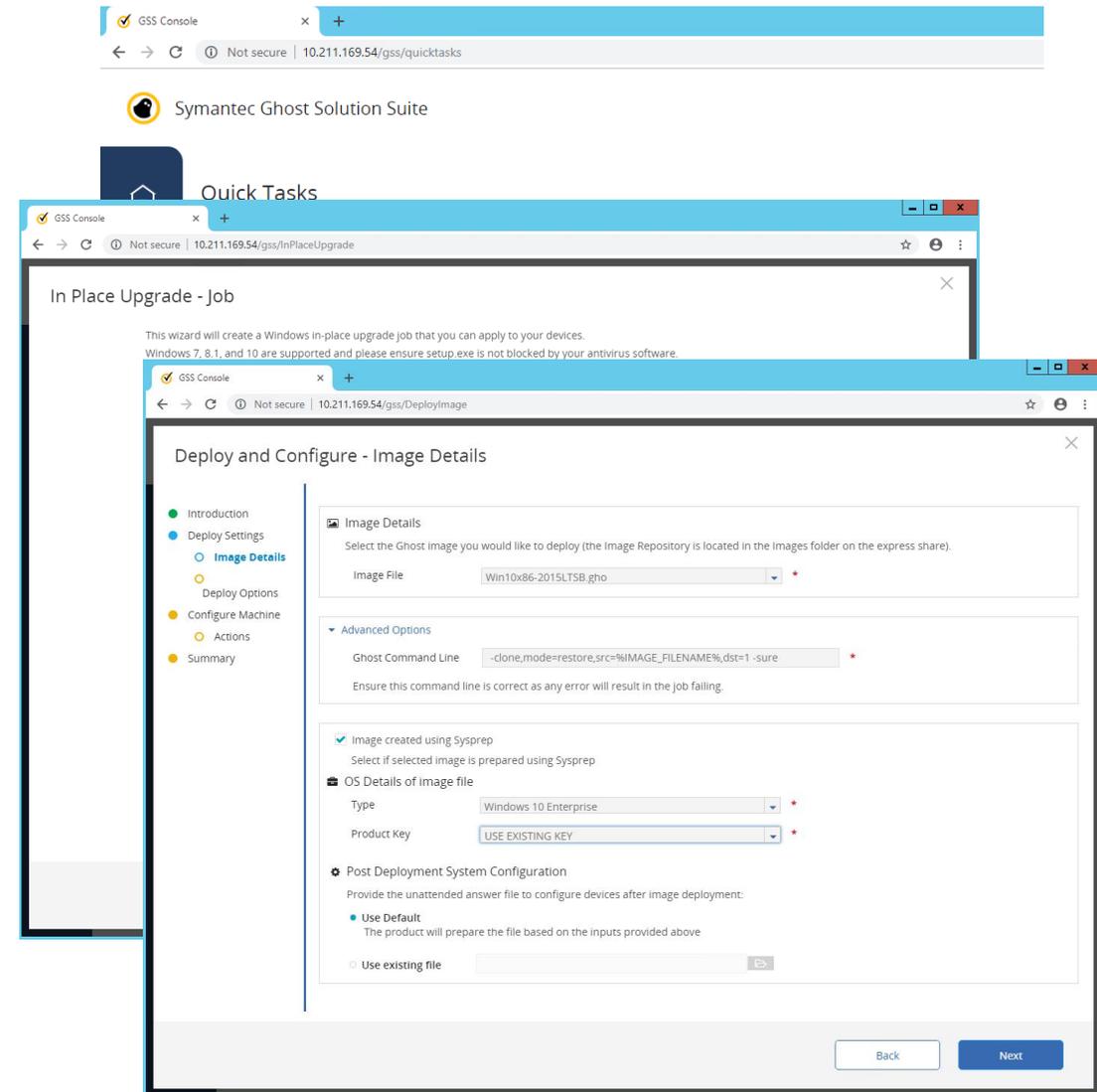
# Wizard Driven Job Creation (Admin Quick Tasks)



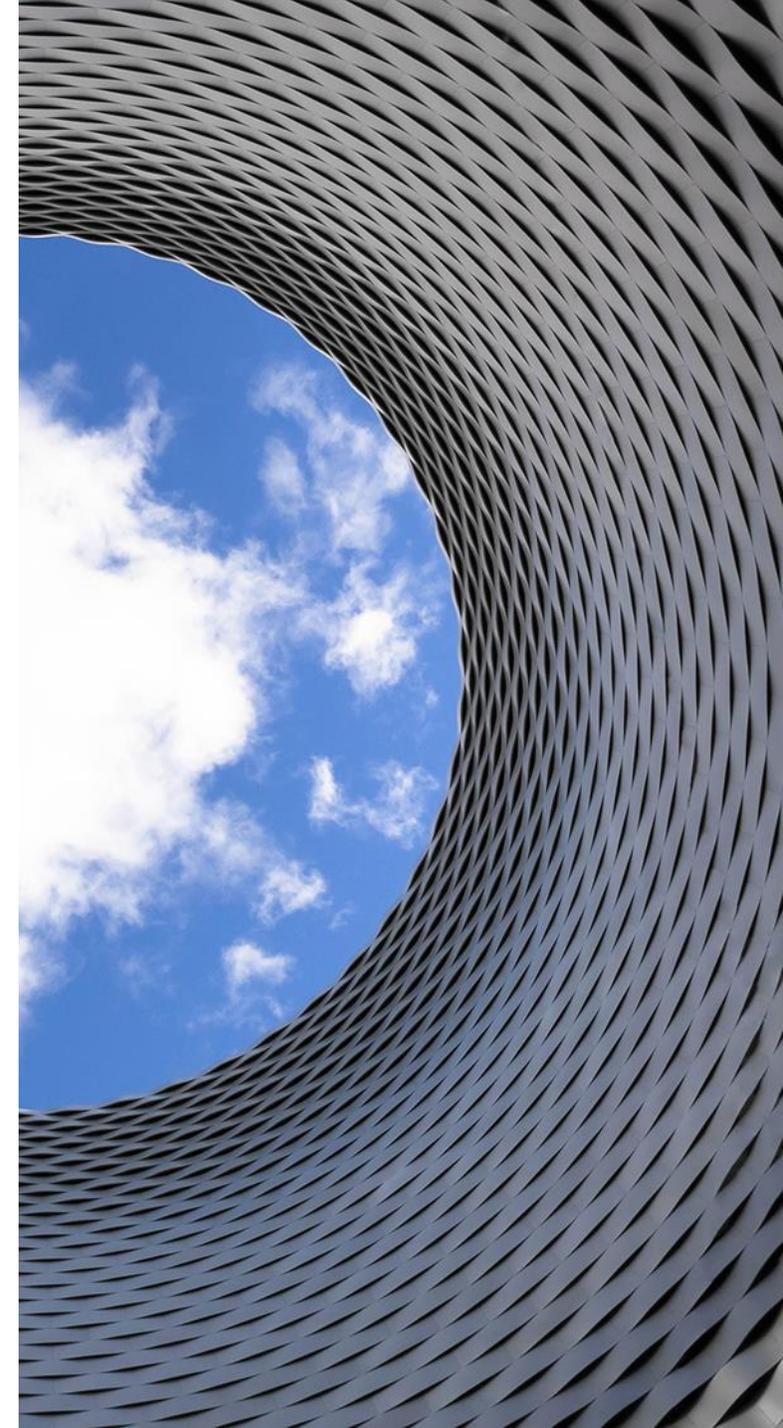
# GSS Web Console Wizards



- New Wizards available (Admin Quick Tasks)
  - Step by step guide to creating common jobs
  - Helps new admins quickly learn how to create jobs
  - Jobs can be deployed using web console and edited in the existing console
  - Create Gold image being added in RU1
- In-place upgrade
  - Creates a simple Windows 10 upgrade job
  - Simple, single page wizard
  - Customers can be ready to migrate in minutes
- Deploy Image
  - Step by step guide to creating a deploy image task
  - Breaks down a complex process into stages
  - Contextual help guides the user (more coming here in RU1)



# Activity Monitor



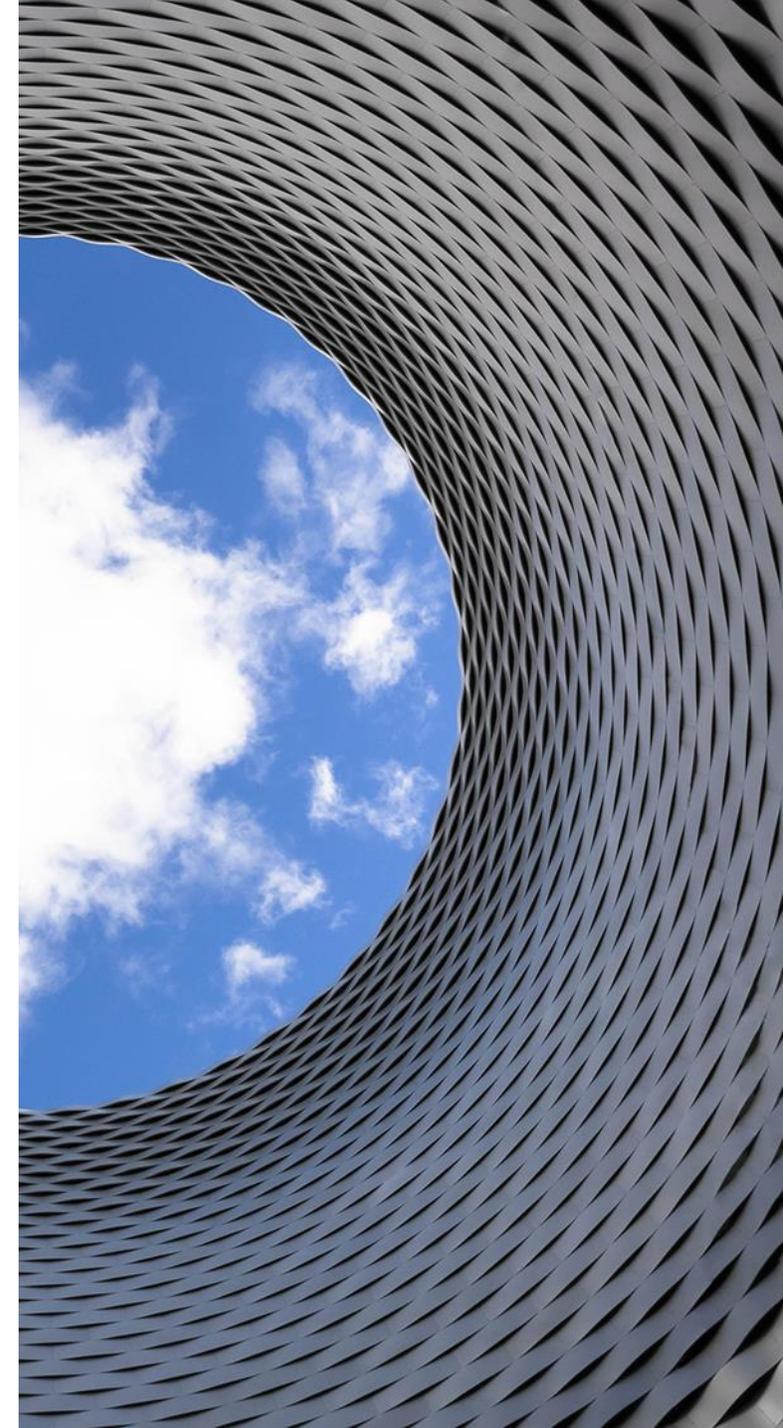
# GSS Web Console – Activity Summary



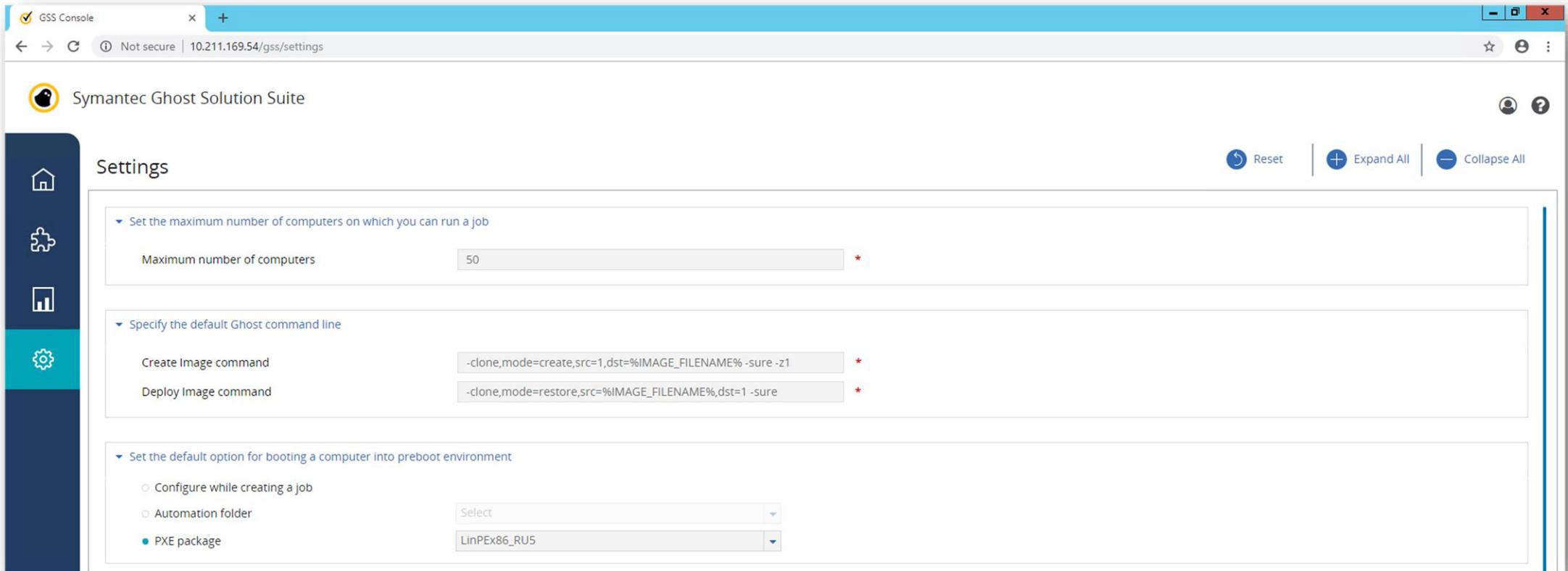
- Summary of all scheduled jobs
- Allows a console user to easily verify the status of actions they have taken
- Includes:
  - Job name
  - Computer name
  - Current job status
  - Start time
  - End Time
  - Execution time
- Easily search for a job
- Summary can be exported to preserve job execution history data

JOB NAME	COMPUTER NAME	JOB STATUS	START TIME	END TIME	EXECUTION TIME
DAgent Upgrade	RS2X64	Script execution complete	2018-10-15 18:36:20	2018-10-15 18:36:21	000:00:01
DAgent Upgrade	WIN7-64	Script execution complete	2018-10-15 18:36:19	2018-10-15 18:36:19	000:00:00
Agent x64 Update	O-2013	Agent update complete.	2018-10-11 18:55:41	2018-10-11 18:55:43	000:00:02
Agent x64 Update	O-2013	Agent update complete.	2018-10-04 14:08:38	2018-10-04 14:08:38	000:00:00
Agent x64 Update	RS2X64	Agent update complete.	2018-09-29 23:18:32	2018-09-29 23:18:33	000:00:01
Agent x64 Update	RS2X64	Agent update complete.	2018-09-28 17:15:33	2018-09-28 17:15:34	000:00:01
Agent x86 Update	10RS3x86PRO	Agent update complete.	2018-09-28 11:16:56	2018-09-28 11:17:03	000:00:07
Agent x86 Update	GWIN10RS2-x86	Agent update complete.	2018-09-27 23:02:22	2018-09-27 23:02:34	000:00:12
Agent x64 Update	WIN7-64	Agent update complete.	2018-09-27 20:55:30	2018-09-27 20:55:36	000:00:06
Agent x64 Update	GWin7x64UEFI	Agent update complete.	2018-09-27 20:55:18	2018-09-27 20:55:25	000:00:07
DAgent Upgrade	10RS3x86PRO	Sending Wake-On-Lan signal...			
DAgent Upgrade	O-2013	Sending Wake-On-Lan signal...			

# Other Settings



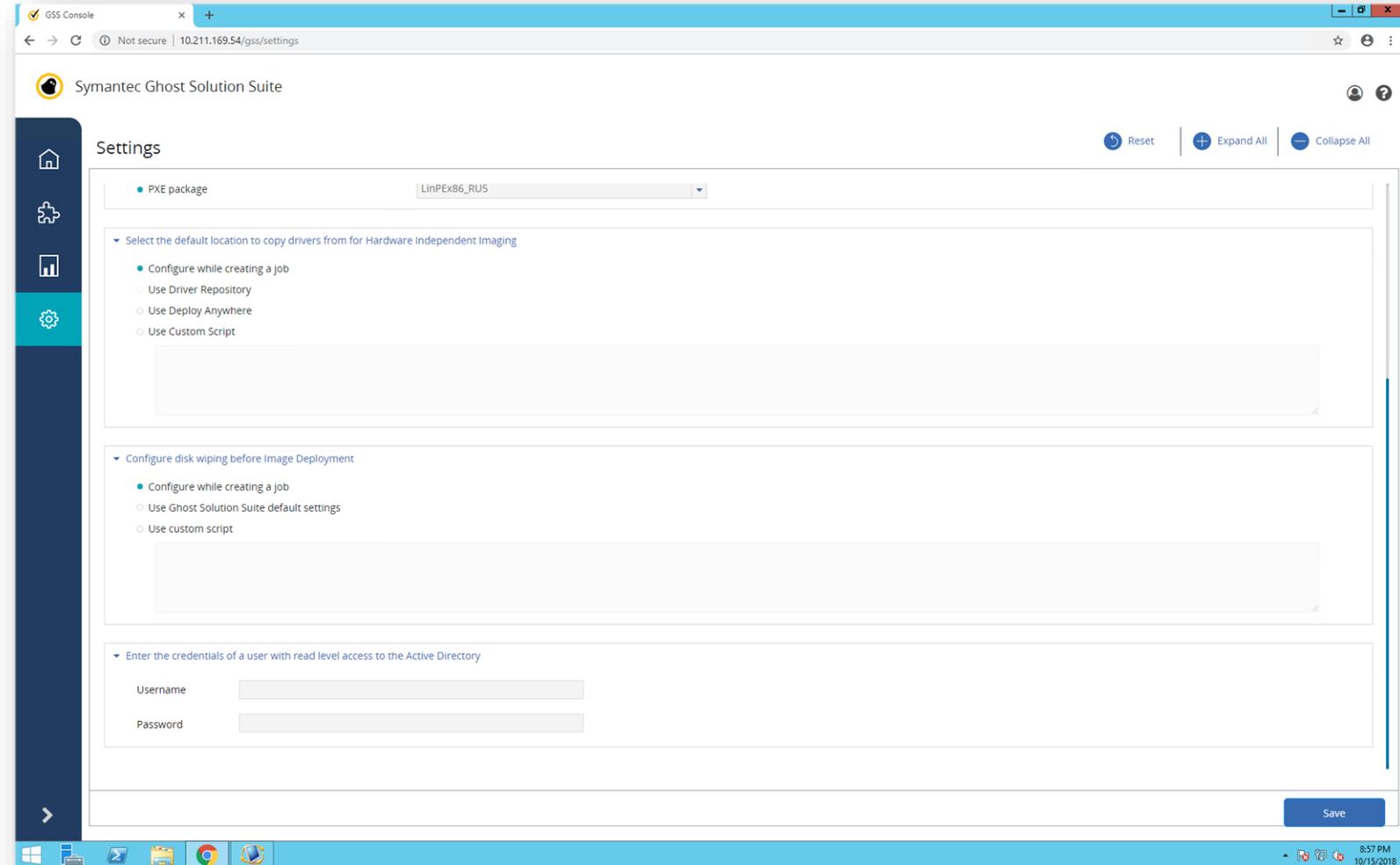
# GSS Web Console – Other settings



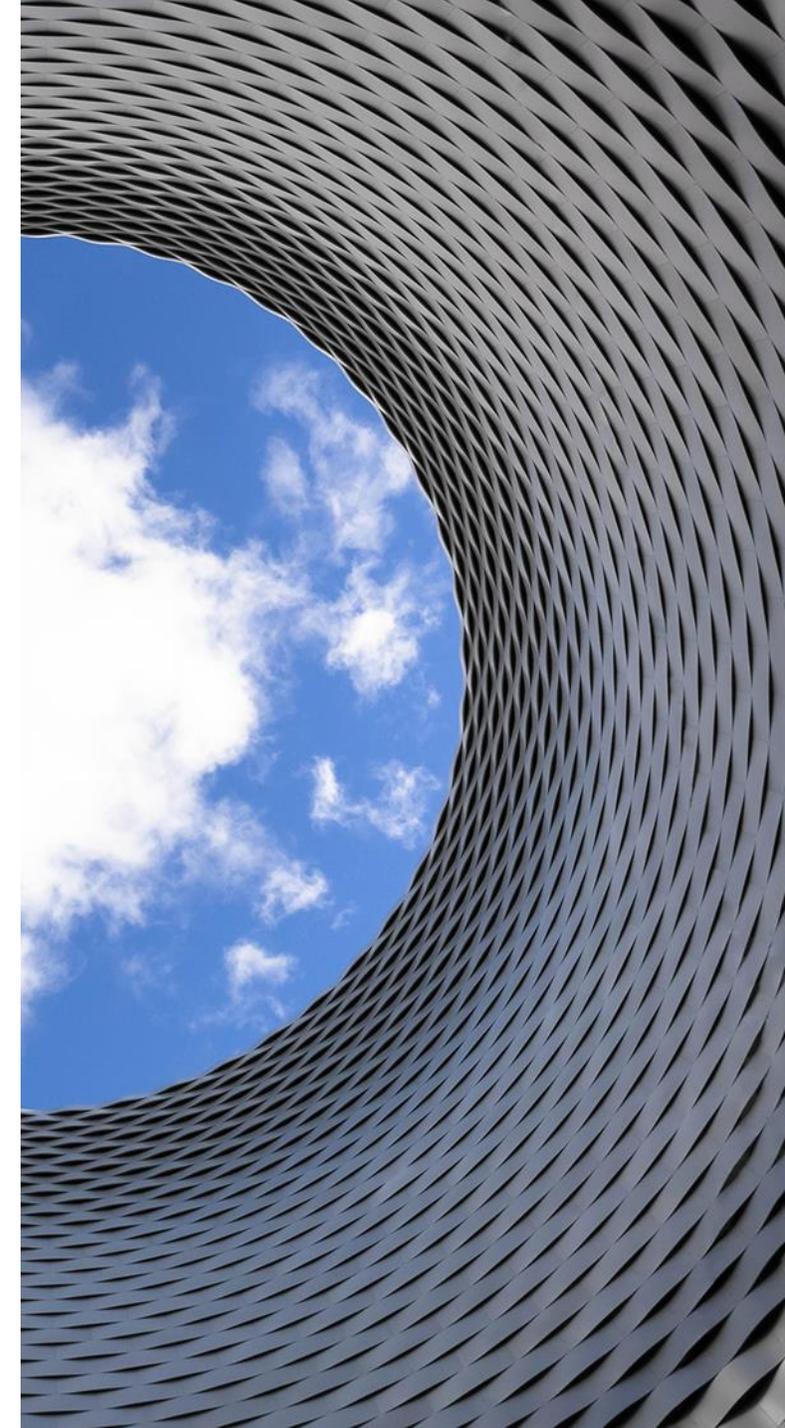
- Control the maximum number of computers a job can be executed on. This helps to stop damaging scheduling mistakes.
- Edit the default Ghost Command line to handle environment specific customizations
- Choose the default PXE option

# GSS Web Console – Other settings

- Select how to handle drivers for Hardware Independence
- Select default options for disk configuration

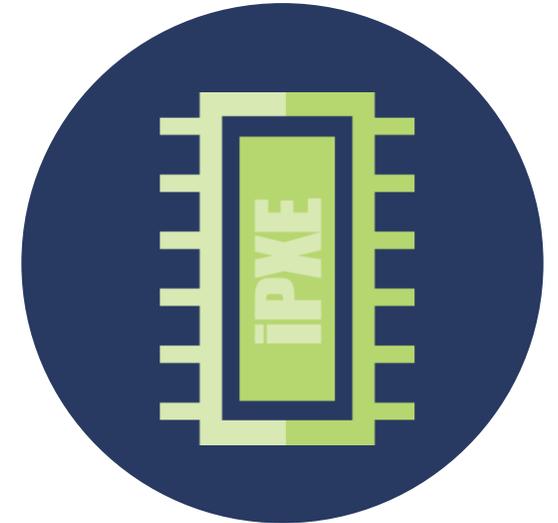


# Speed Improvements



# iPXE in GSS (and Deployment Solution)

- A significant part of the end to end imaging process is booting into automation
- iPXE delivers a dramatic speed improvement in boot time to automation
- This reduces end user down time during imaging actions
- Supports HTTPS, increasing security
- Existing PXE options still available



# Imaging Speed Improvements

- The speed to image a device is critically important, especially in large environments
- We have increased the imaging speed in most scenarios
- The value of this is to:
  - Reduces downtime for end users
  - Improve efficiency of iterative image creation process

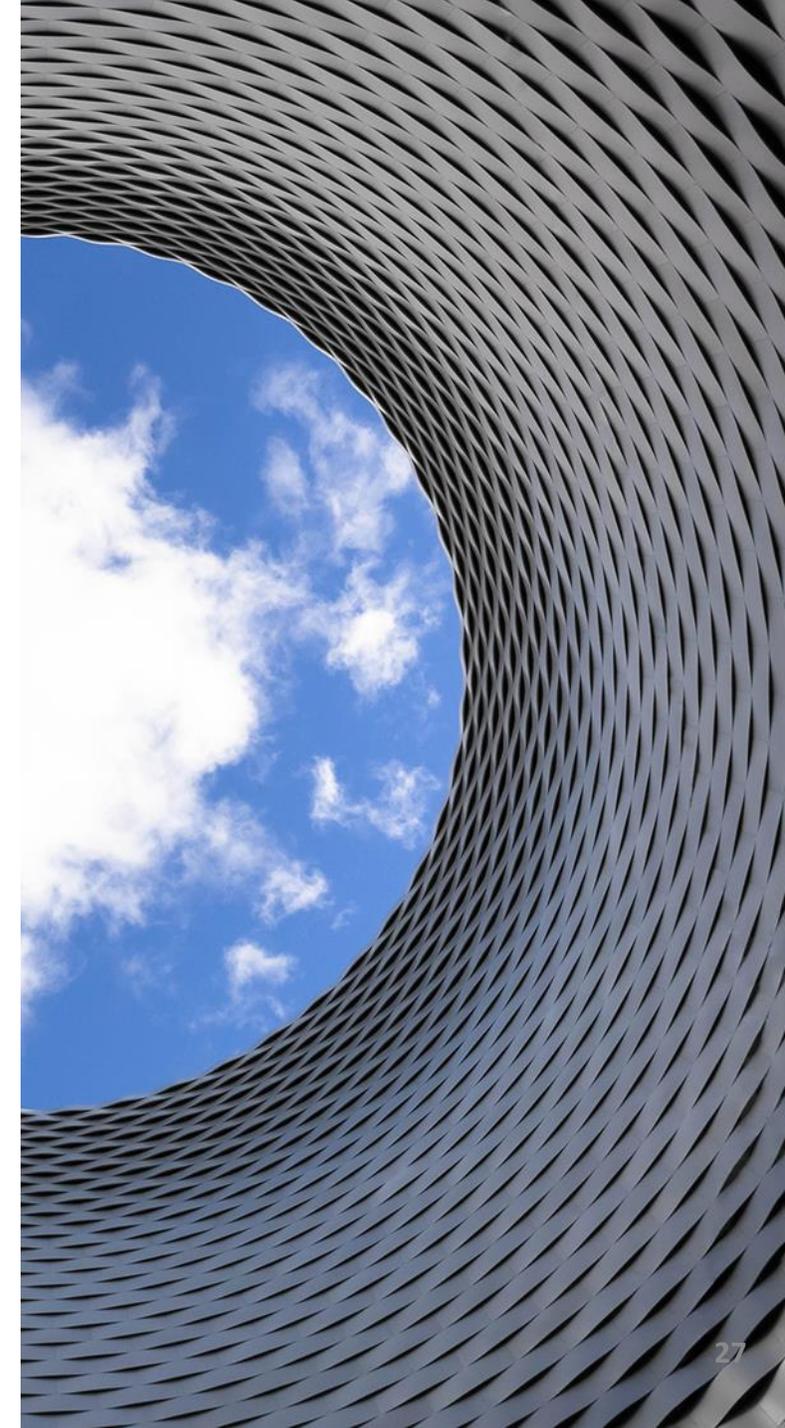


# Faster Linux imaging support

- Driven by constant changes in XFS which required significant engineering effort
- Delivers Linux OS support in a fraction of the time, freeing up resources to work on other new features
- Effectively takes a sector by sector image but ignores empty space (so image is the size of the data and not the drive)



# Questions?





**Thank you!**

