IBM

ADVANCED TECHNOLOGY GROUP (ATG)

Accelerate with ATG Webinar

Take Your CSM to the Next Level: What's New in IBM Copy Services Manager 6.3.10 & 6.3.11

Randy Blea
STSM – DS8000 Copy Services Software Architecture
CSM & DS8000 Automation
blead@us.ibm.com

IBM

© Copyright IBM Corporation 2024

Accelerate with ATG Technical Webinar Series

Advanced Technology Group experts cover a variety of technical topics.

Audience: Clients who have or are considering acquiring IBM Storage solutions. Business Partners and IBMers are also welcome.

To automatically receive announcements of upcoming Accelerate with IBM Storage webinars, Clients, Business Partners and IBMers are welcome to send an email request to accelerate-join@hursley.ibm.com.

2024 Upcoming Webinars – Register Here!

Get Up To Speed on IBM Storage Virtualize 8.6.3 & 8.7 - Latest Features and Enhancements - July 16th, 2024

IBM C-Type SAN Analytics: Real-time and Always-on SAN Performance visibility at Scale – July 23rd, 2024

Revolutionizing Data Archiving: IBM S3 Deep Archive on Diamondback – July 25th, 2024

IBM Fusion and RedHat OpenShift Virtualization – August 6th, 2024

Important Links to Bookmark:

ATG Accelerate Site: https://ibm.biz/BdSUFN

ATG MediaCenter Channel: https://ibm.biz/BdfEgQ

© Copyright IBM Corporation 2024

Offerings

Client Technical Workshops

- **IBM Cyber Resiliency with IBM Storage Defender: July 17th - 18th – VIRTUAL**
- **IBM Storage Scale System & Storage Scale Workshop: August 8th in San Jose, CA**
- **IBM Fusion & Ceph: A Deep Dive into Next Gen Storage: August 21st – 22nd in Atlanta, GA**
- **IBM FlashSystem Deep Dive & Advanced Functions: September 18th – 19th in Paramus, NJ**
- IBM DS8900F Advanced Functions

TechZone Test Drives / Demos

- IBM Storage Scale and Storage Scale System GUI
- IBM Storage Virtualize Test Drive
- IBM DS8900F Storage Management Test Drive
- Managing Copy Services on the DS8000 Using IBM Copy Services Manager Test Drive
- IBM DS8900F Safeguarded Copy (SGC) Test Drive
- IBM Cloud Object Storage Test Drive - (Appliance based)
- IBM Cloud Object Storage Test Drive - (VMware based)
- IBM Storage Protect Live Test Drive
- IBM Storage Ceph Test Drive - (VMware based)

Please reach out to your IBM Representative or Business Partner for more information.

***IMPORTANT* The ATG team serves clients and Business Partners in the Americas, concentrating on North America.**

© Copyright IBM Corporation 2024

Registration Open!

Storage @ IBM TechXchange Conference 2024

October 21-24, 2024
Mandalay Bay | Las Vegas
#IBMTechXchange

Key Learnings

- Practical how-to advice
- Patterns and best practices
- Success stories, IBM PoV, proven techniques

Featured Products

IBM Storage Defender
IBM Storage Fusion
IBM Storage Scale + IBM Storage Ceph
IBM Tape + IBM SAN
IBM Storage FlashSystem + IBM Storage DS8000

Collaborate. Learn. Play.

Community

IBM Champions
User Groups
Tech Peers
Business Partners

Sandbox

Network
Learn
Collaborate
Play

Roadmaps

Go deep with people in the know and set the stage for where IBM is going in the future

Breakout Sessions

Trends and Directions
User Groups
Product Deep Dives
Meet the Expert
Professional Development
Show the Code
Birds of a Feather
Academic/Research

Accelerate your Career

Labs (Instructor-Led, Self-paced)
IBM Certification Testing
Earn up to 25 hours in CPE credits

https://www.ibm.com/community/ibm-techxchange-conference/

Game On! →

Accelerate with ATG Survey

Please take a moment to share your feedback with our team!

You can access this 6-question survey via Menti.com with code **1708 6924** or

Direct link https://www.menti.com/alwhyze7z1gz

or

QR Code

Fun Question: What do you do to get rid of stress?

34 responses

© Copyright IBM Corporation 2024

IBM

ADVANCED TECHNOLOGY GROUP (ATG)

Accelerate with ATG Webinar

Take Your CSM to the Next Level: What's New in IBM Copy Services Manager 6.3.10 & 6.3.11

Randy Blea
STSM – DS8000 Copy Services Software Architecture
CSM & DS8000 Automation
blead@us.ibm.com

IBM

© Copyright IBM Corporation 2024

Meet the Speaker

Randy Blea is a Senior Technical Staff Member and software architect at IBM with over 25 years of experience in the field of copy services. His responsibilities include setting the strategic vision and technical architecture for IBM Copy Services Manager, an enterprise data center management solution for copy services and disaster recovery management on IBM storage devices.

In his role, Randy has gained experience in the agile development of Enterprise products using Java and deploying solutions across multiple platforms, from Distributed Systems to z/OS Systems. Randy has promoted innovation throughout his technical career earning the title of IBM Master Inventor for his contributions to the IBM patent portfolio as well as his mentor ship of other IBM employees.

Recently, Randy has taken on an additional role in helping to deliver automation solutions using python and Ansible RedHat for DS8000 and Copy Services Manager customers.

© Copyright IBM Corporation 2024

Session Objectives

- Quick Product Overview
- What's New in 6.3.10.0

© Copyright IBM Corporation 2024

IBM Copy Services Manager

Simplify Your Replication

Easy to install. Easy to Setup. Easy to Manage.

Provides Automation for Advanced Copy Services

Single Point of Control Across Environment

Designed to Scale For Thousands of Relationships

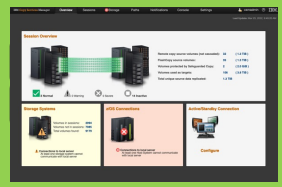
RPO Monitoring and Historical Reporting

One Step Recovery

Simplifies the recovery process in multi-site replication, protecting customer data while keeping costs down

Provides support for both distributed and mainframe data
Supports DS8900F and Spectrum storage systems

Installable across all major platforms:
Windows, Linux, AIX, z/OS, Linux for z Systems
And now pre-installed on the DS8000 HMC



Disaster Recovery and High Availability

Manages z Systems HyperSwap and
supports Power HA HyperSwap to create highly available solutions in Metro Mirror and Metro Global Mirror Environments

Advanced Built in Scheduler

Schedule multiple actions across multiple sessions!!
Advanced features such as checking RPO, waiting for states and now running External Scripts

Protect Your Data

Warning Prompts
User Roles
Site Awareness
Dynamic Images
Event and Threshold Alerts
Dual Control Support

* See your IBM Representative for further details.

IBM

What's New in IBM Copy Services Manager V6.3.10

Remote CLI installer for Distributed Systems

IDEA CSM-I-79 – Support for setting multiple times on Daily/Weekly Scheduled Task

Support for FlashSystems Restore to Production and Refresh Thin Clones

Associate Multiple Sysplexes on 4-Site Replication Enhanced Session

Support for FlashSystems Asynchronous Policy Based Replication Recovery Test Mode

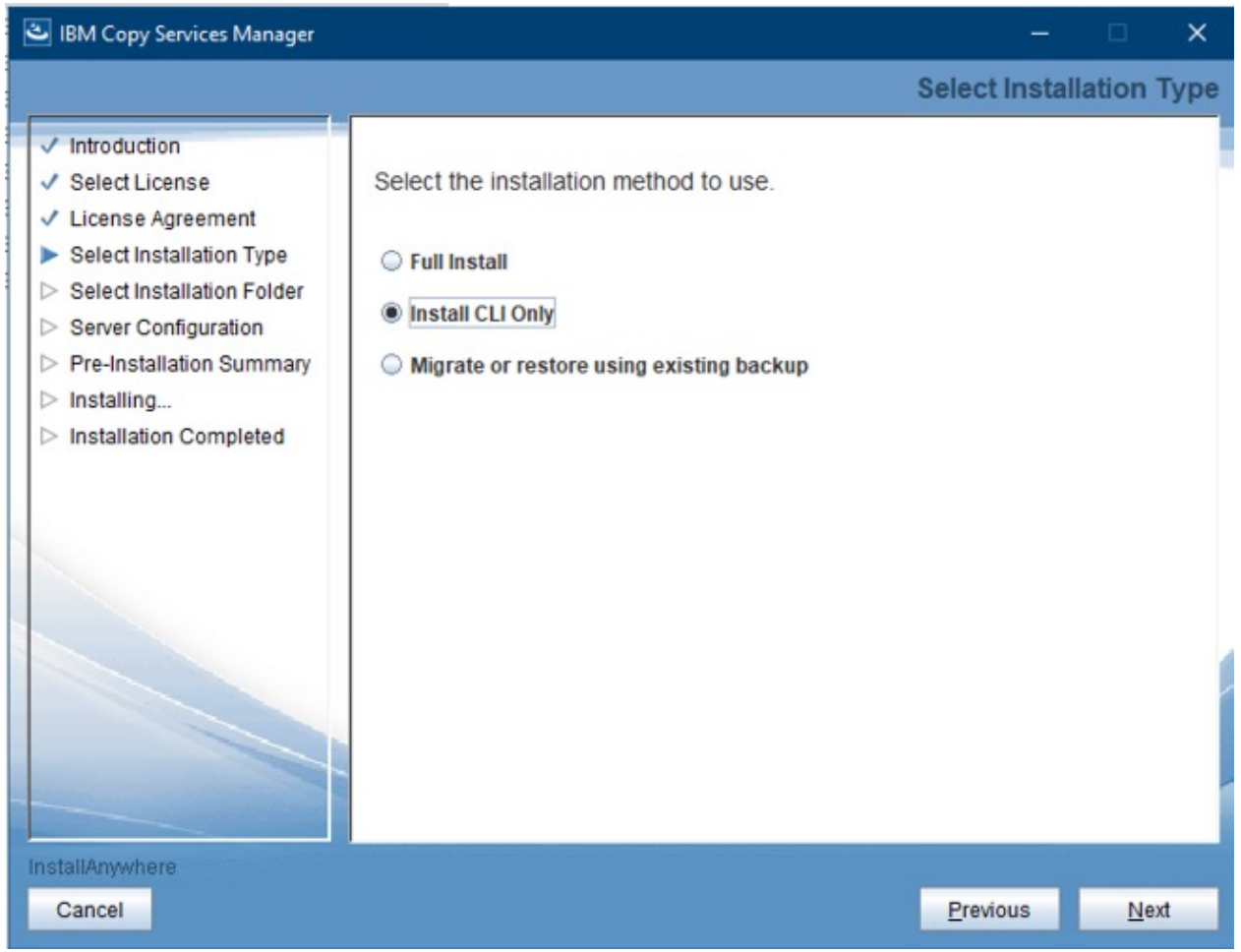
New Flash 3rd Site and Backup 4th Site commands on 4-Site Replication Enhanced session

© Copyright IBM Corporation 2024

Remote CLI installer for Distributed Systems

- The CSM CLI is installed on the same system as the server using the installation files
- Prior to 6.3.10 you could run the CSM CLI from a remote system by downloading an archive file and extracting it to that remote system
- Starting with CSM 6.3.10 you can now install the CSM CLI remotely using the installation file itself. The installation file will then be used for upgrading an existing CLI installation for future releases.
- The installation of the remote CLI can be done via the graphical installer or silent installer as in the example below.

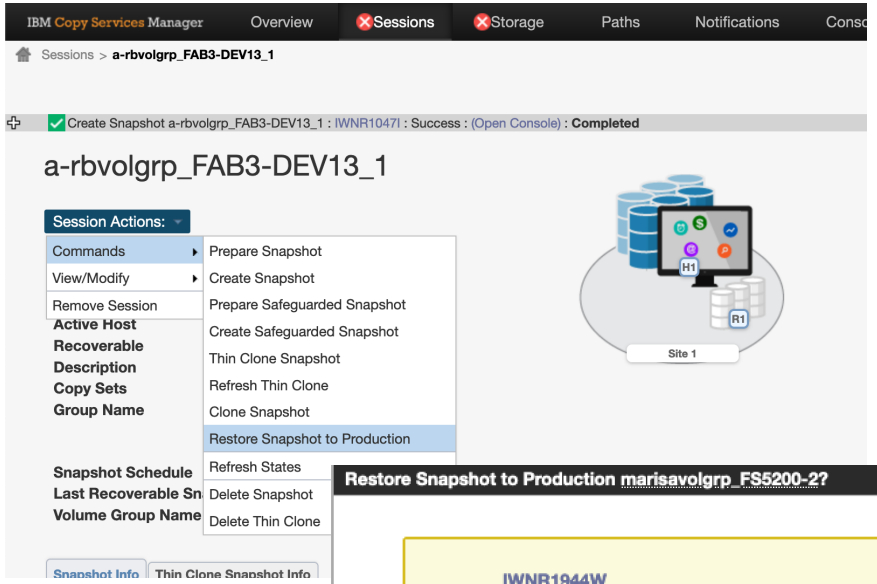
```
cmd /c csm-setup-6.3.x-win.exe -i silent
-DLICENSE_ACCEPTED=true -
DSCLI_ONLY_INSTALL=true
```

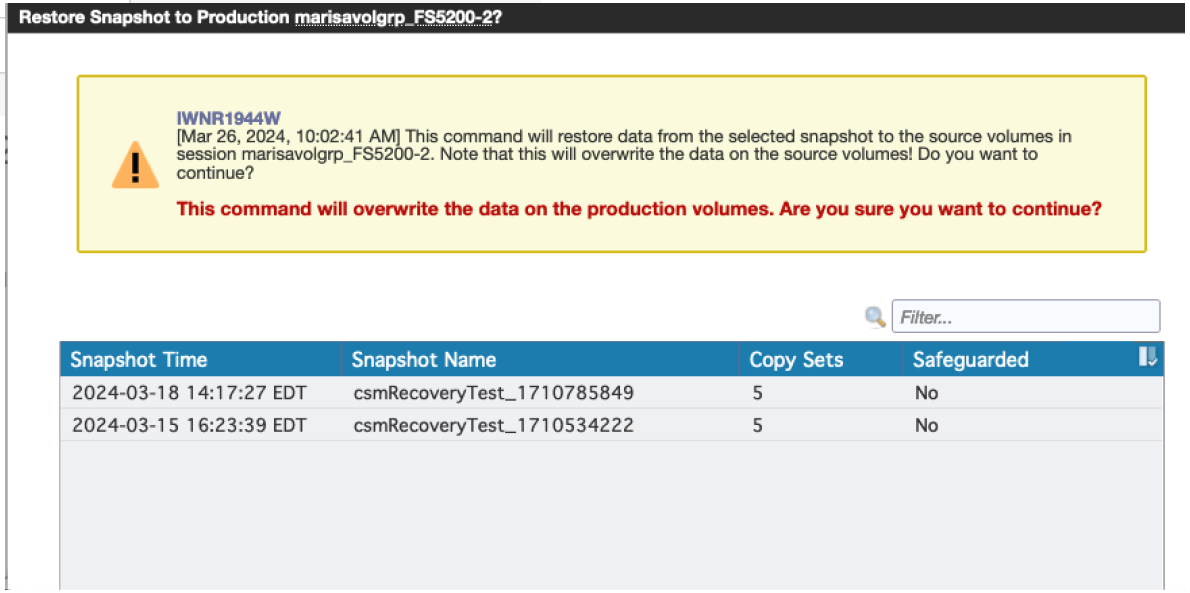


© Copyright IBM Corporation 2024

Support for FlashSystems Snapshot Restore to Production

- CSM has supported the creation of Snapshot and Safeguarded Snapshots for FlashSystems since their release.
- Staring with 6.3.10 you can now take advantage of the new support on Snapshots to Restore a Snapshot of Safeguarded Snapshot back onto the Source volumes in the Volume Group.
- Caution should be taken prior to issuing the Restore Snapshot to Production command as this will overwrite the data for the production volumes with the data in the Snapshot.

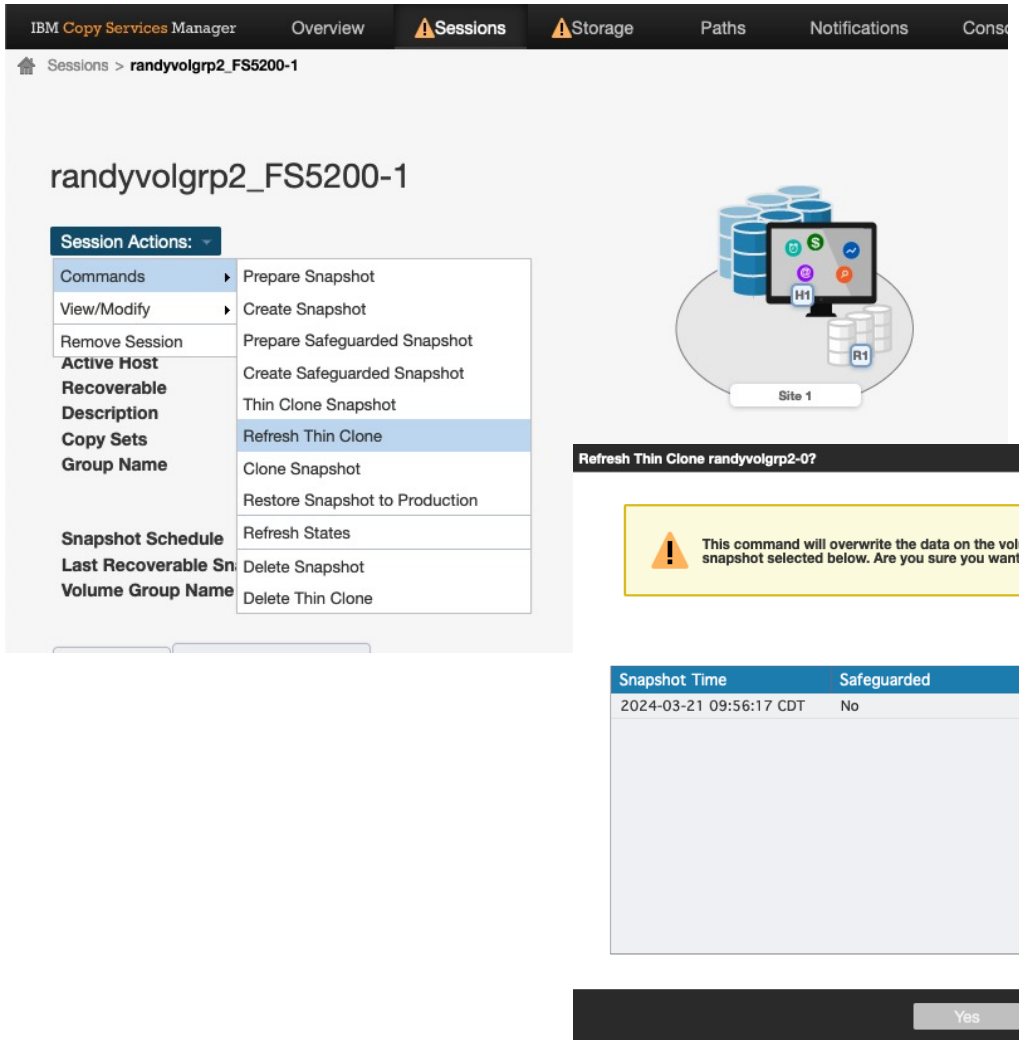




© Copyright IBM Corporation 2024

Support for FlashSystems Snapshot Refresh Thin Clones

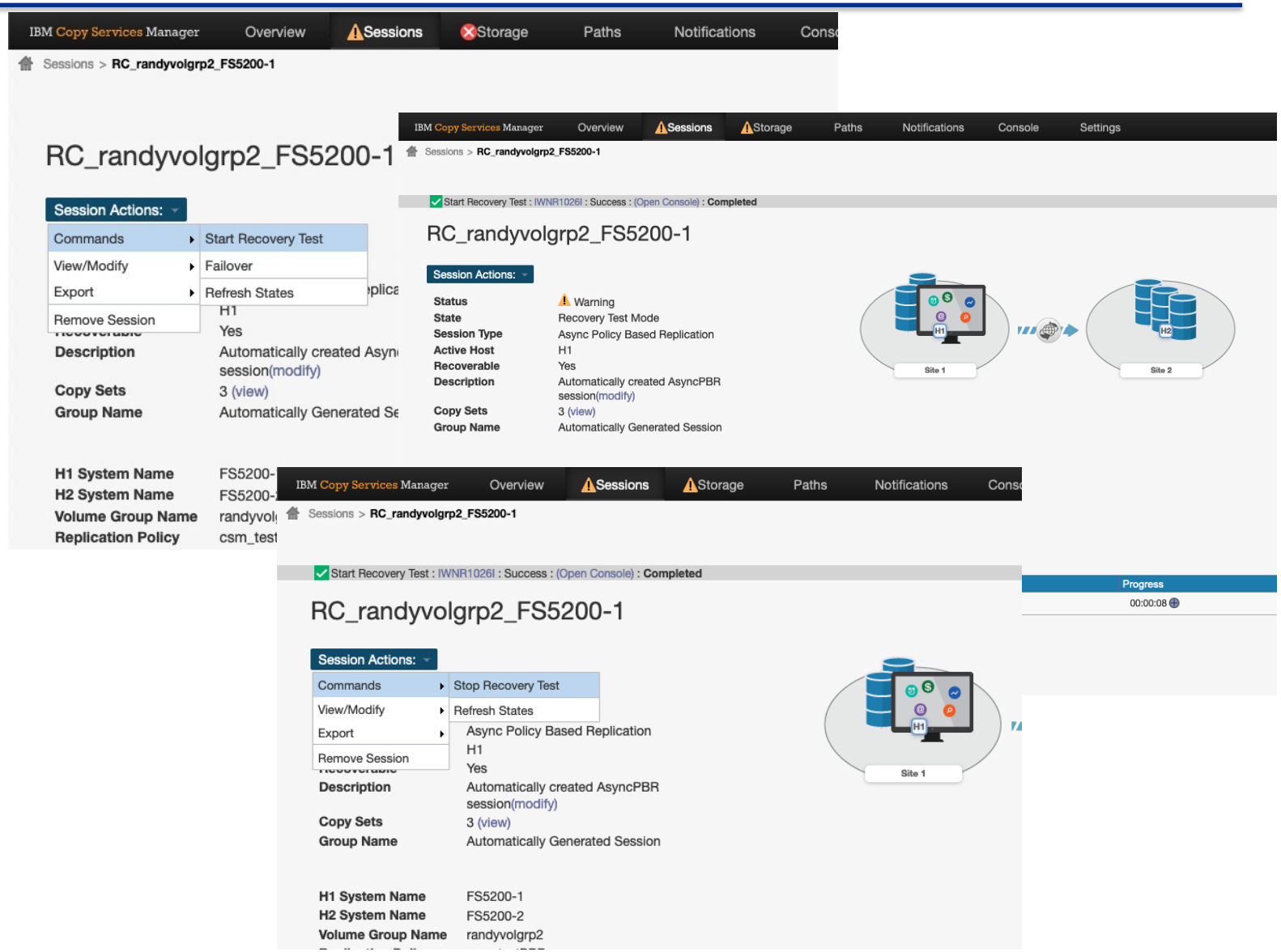
- To access the data on both Snapshots and Safeguarded Snapshots you have to create a Clone or Thin Clone which creates a new volume group with host accessible volumes.
- However, if you're doing regular tests of snapshots creating a new Thin Clone for each Snapshot means that you have to mount the hosts to a different set of volumes each time.
- With the new Refresh Thin Clones support, you can choose an existing Thin Clone and refresh the data on that with the same or a different Snapshot. The hosts can then remain attached to the same volumes.



© Copyright IBM Corporation 2024

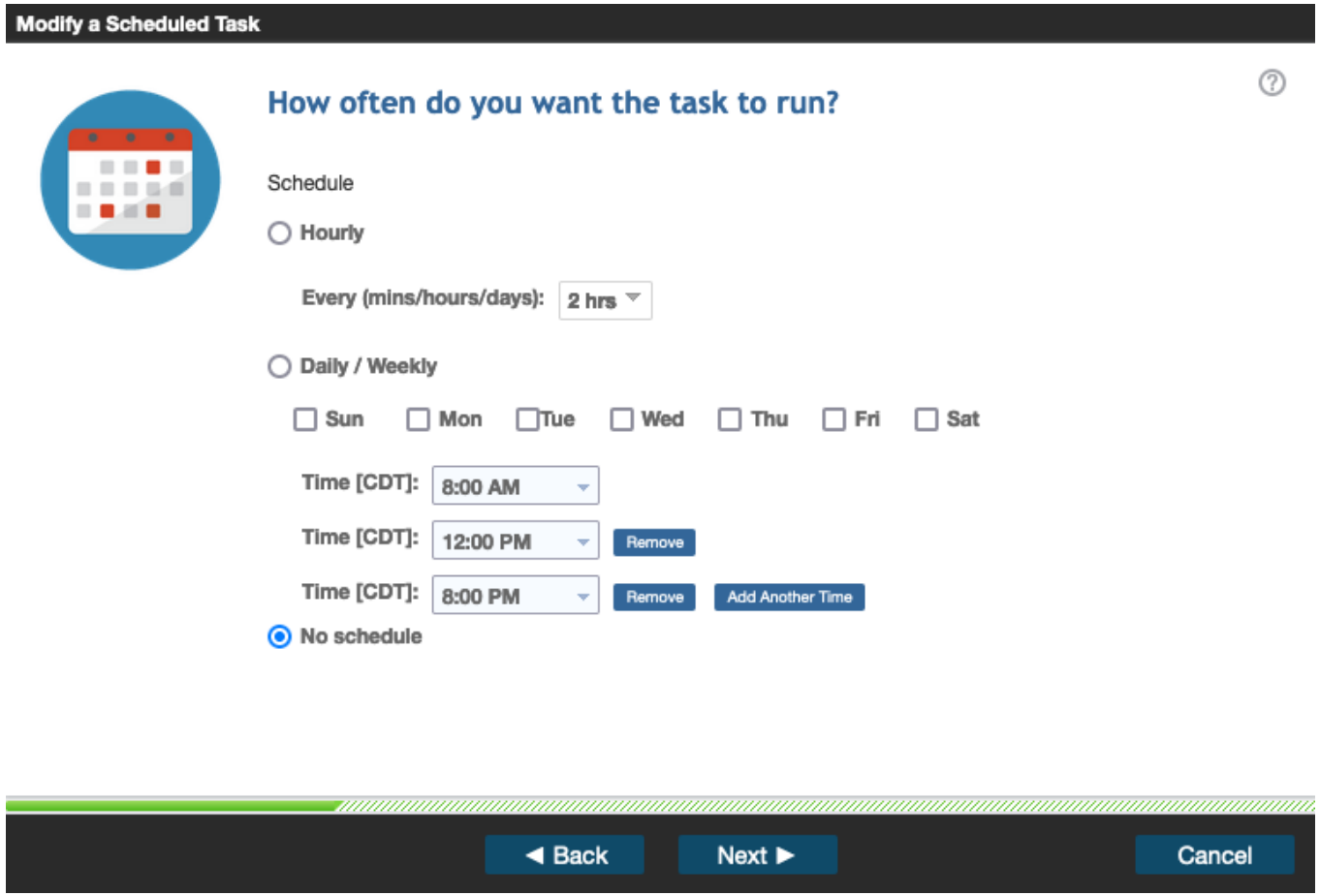
Support for FlashSystems Asynchronous Policy Based Replication Recovery Test Mode

- In previous releases, in order to test host connectivity and other disaster processes, the Asynchronous Replication would need to be suspended while tests at the remote site were done, leading to potentially long resynch times when the test completed.
- In CSM 6.3.10 you can now issue the "**Start Recovery Test**" command to put the session in a recovery test mode.
- While in the **Recovery Test Mode** the hosts can attach and write to the target volumes. Updates will continue to the target site, but Consistency Groups will NOT be forming.
- When the test is complete issue the **Stop Recovery Test**.
- Prior to entering Recovery Test Mode, the session will create a snapshot at the remote site. This snapshot can be used to restore the targets to a consistent point if a disaster occurs during the testing. Or the session can be recovered to a diverged copy of the data.



IDEA CSM-I-79 – Support for Setting Multiple Times on Daily/Weekly Scheduled Task

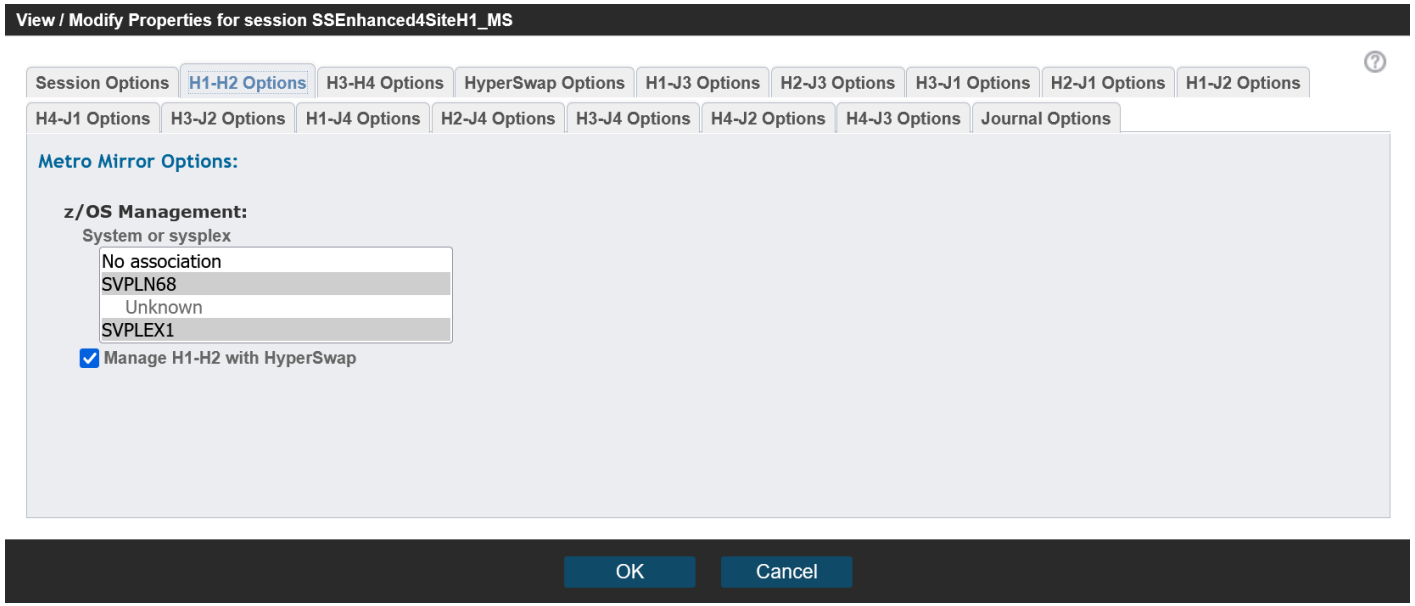
- The CSM Scheduled Task provides a number of options for setting a schedule: Hourly, Daily, or no scheduled at all.
- Starting with the 6.3.10 release, when setting up a Daily/Weekly schedule, you can now add multiple times during the days chosen that the task should run.
- To add additional times, click on the “Add Another Time” button.
- To remove times, click on the “Remove” button next to the time you want to remove.
- Times will be reorder chronologically after the task is saved.



© Copyright IBM Corporation 2024

Associate Multiple Sysplexes on 4-Site Replication Enhanced Session

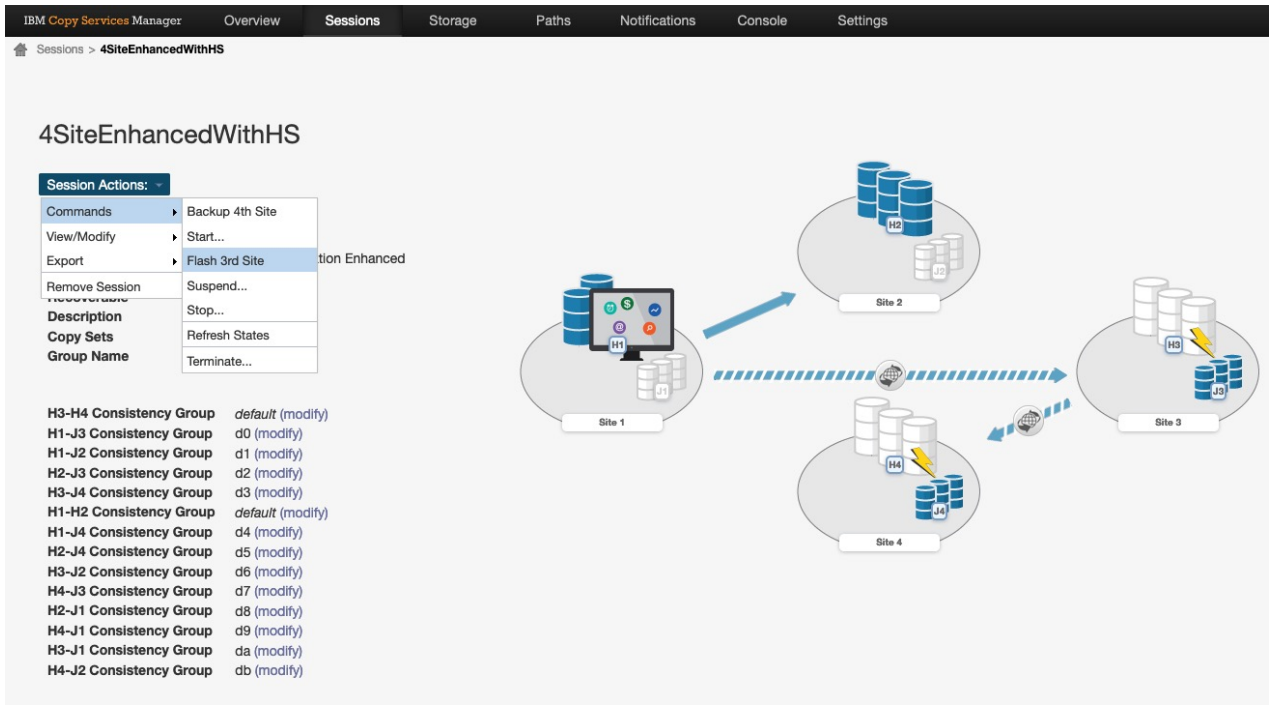
- Customers can associate a System of Sysplex to a session today in order to manage HyperSwap, Hardened Freeze.
- Today this is limited though to a single system/sysplex, and another session would need to be created to handle associating a separate system/sysplex when there are shared volumes across the sysplexes.
- In CSM 6.3.10, for the 4-Site Replication Enhanced session type, you can now associate multiple systems/sysplexes to cover shared volumes.
- When the session loads the HyperSwap/Hardened Freeze configuration it will load it across all associated sysplexes.
- NOTE: Hardware Reserves is still required to support shared volumes across sysplexes.



© Copyright IBM Corporation 2024

New Flash 3rd Site and Backup 4th Site Commands on 4-Site Replication Enhanced Session

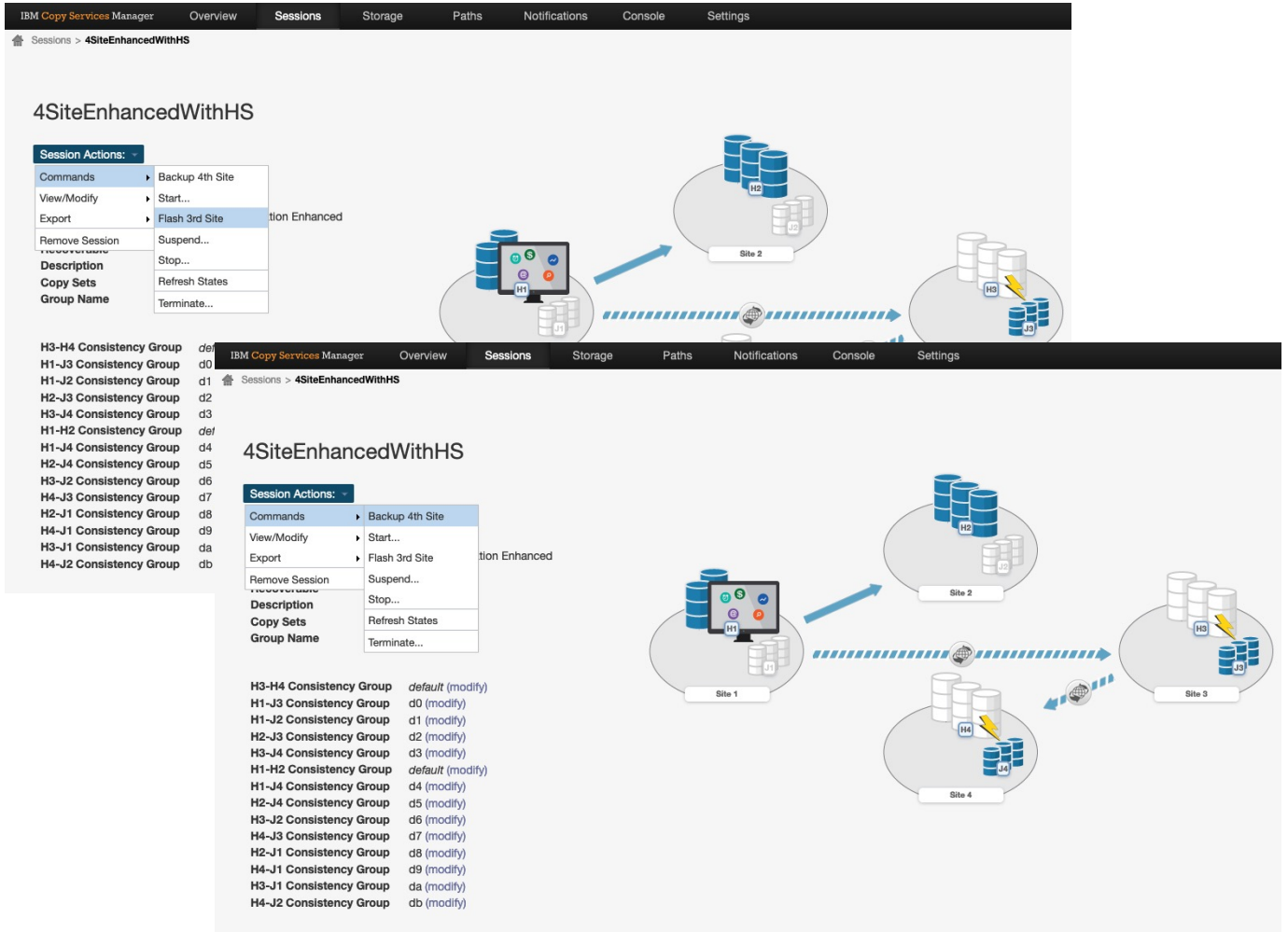
- Customers using the 4-Site Enhanced session are likely to want to create a FlashCopy at whatever site is currently the 3rd site and an SGC Backup at whatever site is currently the 4th Site.
- While this can be done with multiple Scheduled Tasks, given the flexibility of the session type to handle various failover scenarios, any site at any time could be the 3rd or 4th site meaning there would need to be a lot of Scheduled Tasks.
- In addition to needing a lot of tasks, the enablement/disablement would need to be coordinated or automated all depending on which is the 3rd and 4th site.
- If the right task was not enabled, this could result in missing SGC backups.



© Copyright IBM Corporation 2024

New Flash 3rd Site and Backup 4th Site Commands on 4-Site Replication Enhanced Session

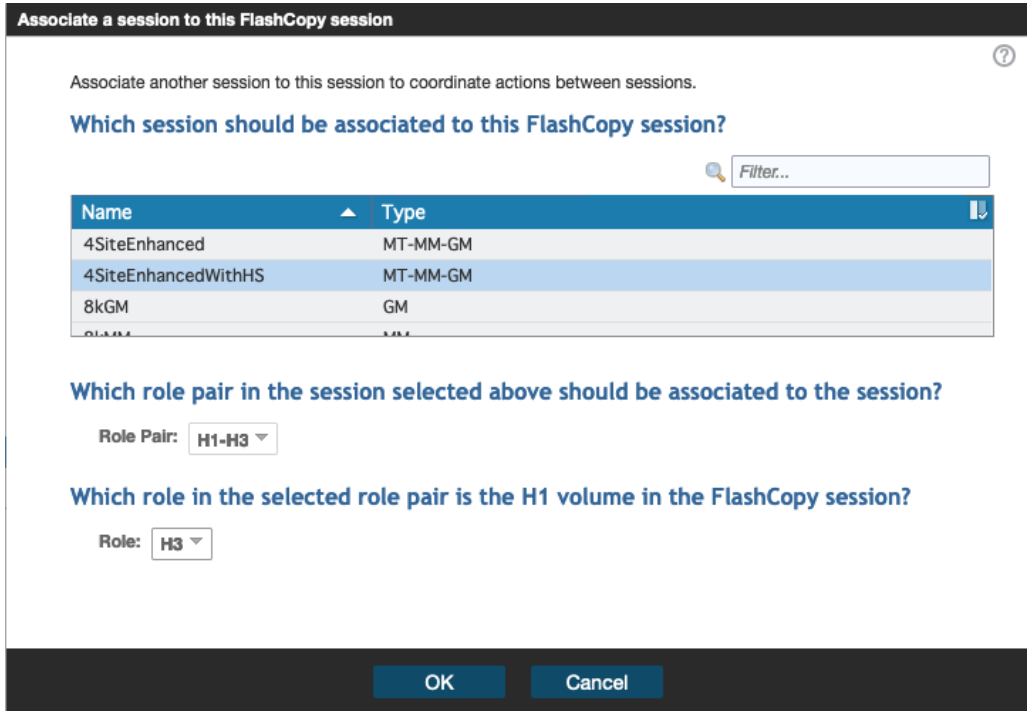
- Two new commands have been created to minimize the complexity of taking practice flashes and SGC backups.
- **Flash 3rd Site** and **Backup 4th Site** were created so that no matter which site is production, or which configuration you're running, the session will determine which site is the 3rd and which is the 4th site.
- Only a single set of Scheduled Tasks are now needed with the simple command.
- No need to enable/disable tasks. No need to for the task to issue multiple actions across both the 4-site and FC/SGC sessions.



© Copyright IBM Corporation 2024

New Flash 3rd Site and Backup 4th Site Commands on 4-Site Replication Enhanced Session

- The two new commands work by associating the SGC session (already supported) and FC session (new to 6.3.10) to the 4-site session. This association allows the 4-site session to know which FC or SGC session to use for the command based off its current state.
- To setup the solution, create an FC and/or SGC session to any site you want to take a Flash or Backup…and then associate it to the 4-Site session.
- When issued the “Flash 3rd Site” command does the following internally:
  - Validates that the RPO for the GM role pair to the 3rd site is below 10 secs.
  - Pauses the GM role pair to the 3rd Site with consistency.
  - Once Paused it looks up the associated FC session for role that is currently the 3rd site and issues the Flash.
  - Resumes the GM role pair to the 3rd Site.
- When issued the ”Backup 4th Site” command does the following internally:
  - Validates that the RPO for the GM role pair to the 3rd site is below 10 secs.
  - Issues a Pause with Consistency to the GM role pair to the 4th Site.
  - Issues a Pause with Consistency to the GM role pair to the 3rd Site.
  - Using the cascaded GM solution, once the GM to the 4th site. pauses, the session will automatically resume the GM to the 3rd site, thus minimizing the time DR is paused.
  - Looks up the associated SGC session for role that is currently the 4th site and issues the Backup.
  - When the backup completes the session then Resumes the GM role pair to the 4th Site.



© Copyright IBM Corporation 2024

What's New in IBM Copy Services Manager V6.3.11

IDEA CSM-I-139 – Allow larger size volumes for FC targets and SGC recovery volumes

IDEA CSM-I-155 – LSS level selection for ESESizer and SGCSizer

IDEA CSM-I-162 – Display Role Pair on DS8000 Global Mirror Info Tab

Support LDAP for z/OS RACF

Support for connecting to DS8000 storage systems using z/OS Passtickets

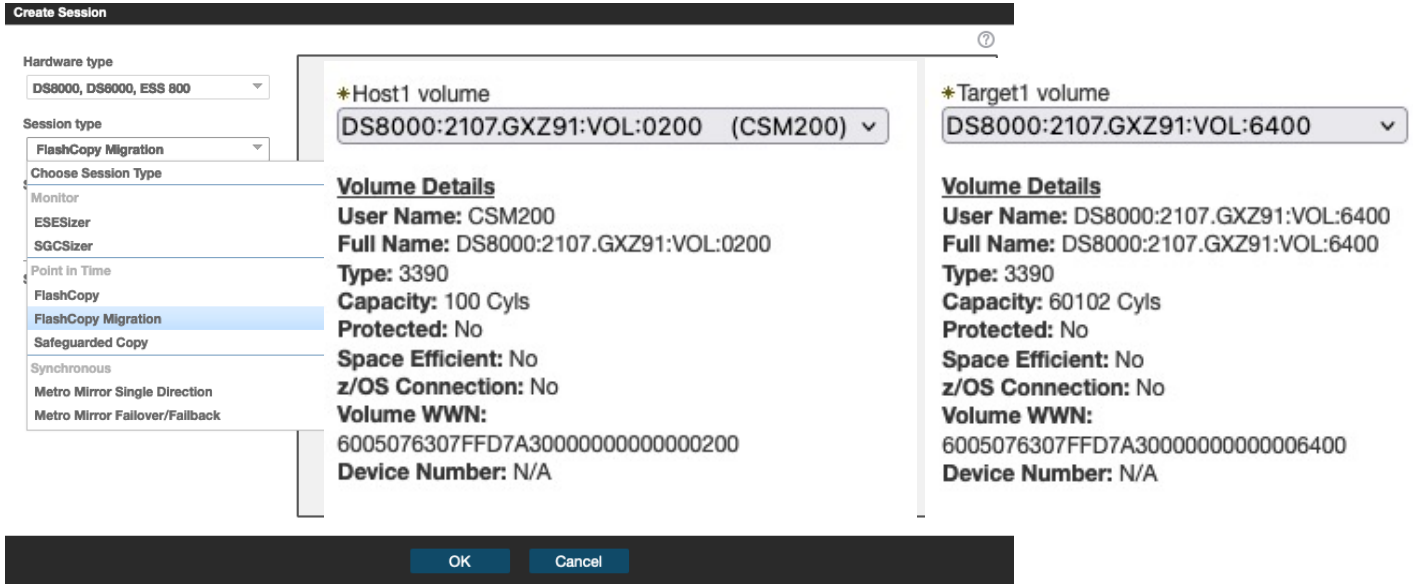
Support Scheduled Task Run External Script action with SSH key pair

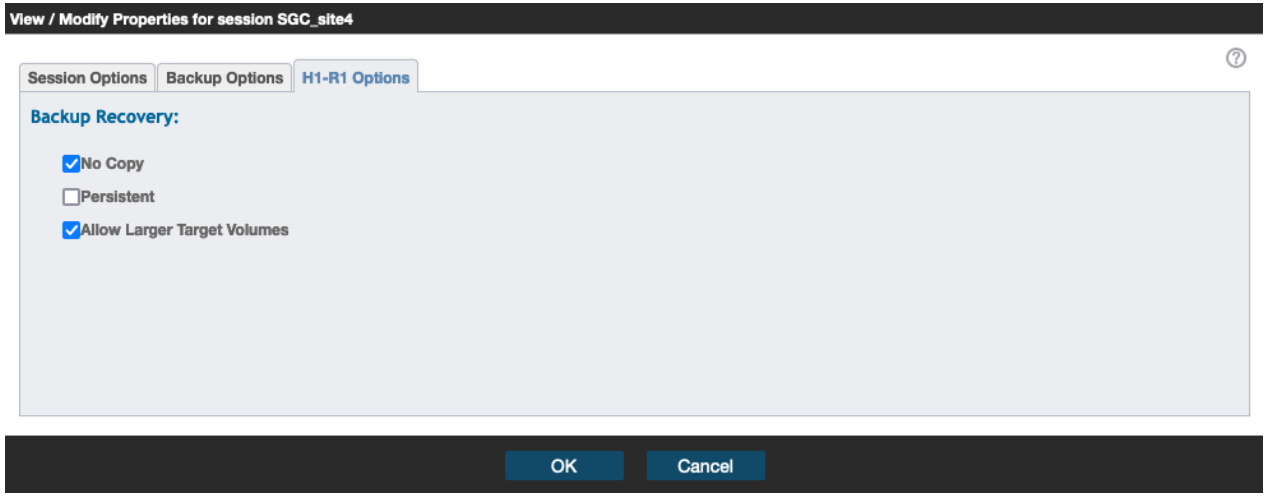
IDEA CSM-I-160 – Automatically reconnect active and standby servers after a disconnect

© Copyright IBM Corporation 2024

IDEA CSM-I-139 – Allow Larger Size Volumes for FC Targets and SGC Recovery Volumes

- Today a FlashCopy session target and a Safeguarded Copy session recovery volume, have to be the same size as the source volume.
- Customers have requested the ability to use FlashCopy for migration.
- In 6.3.11, a new “FlashCopy Migration” session is now available which allows customers to define targets with a larger size.
- Customers have also requested allow Safeguarded Copy recovery volumes of a larger size.
- Having larger SGC recovery volumes allows customers to setup a pool of volumes that could be a recovery volume for any of their volumes, in case they need to recover only one, or a subset of volumes, such as with products like IZBR.

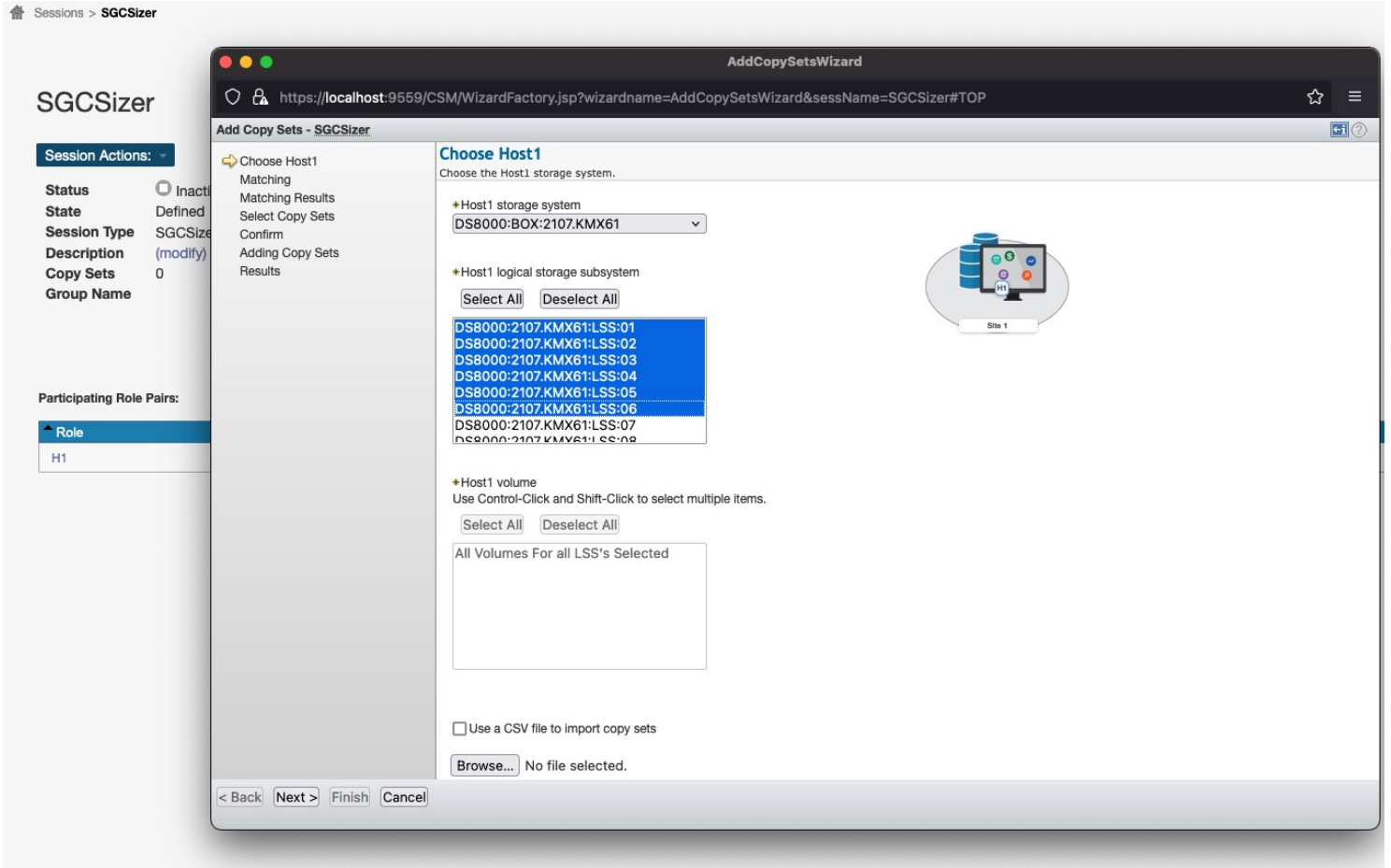




© Copyright IBM Corporation 2024

IDEA CSM-I-155 – LSS Level Selection for ESESizer and SGCSizer

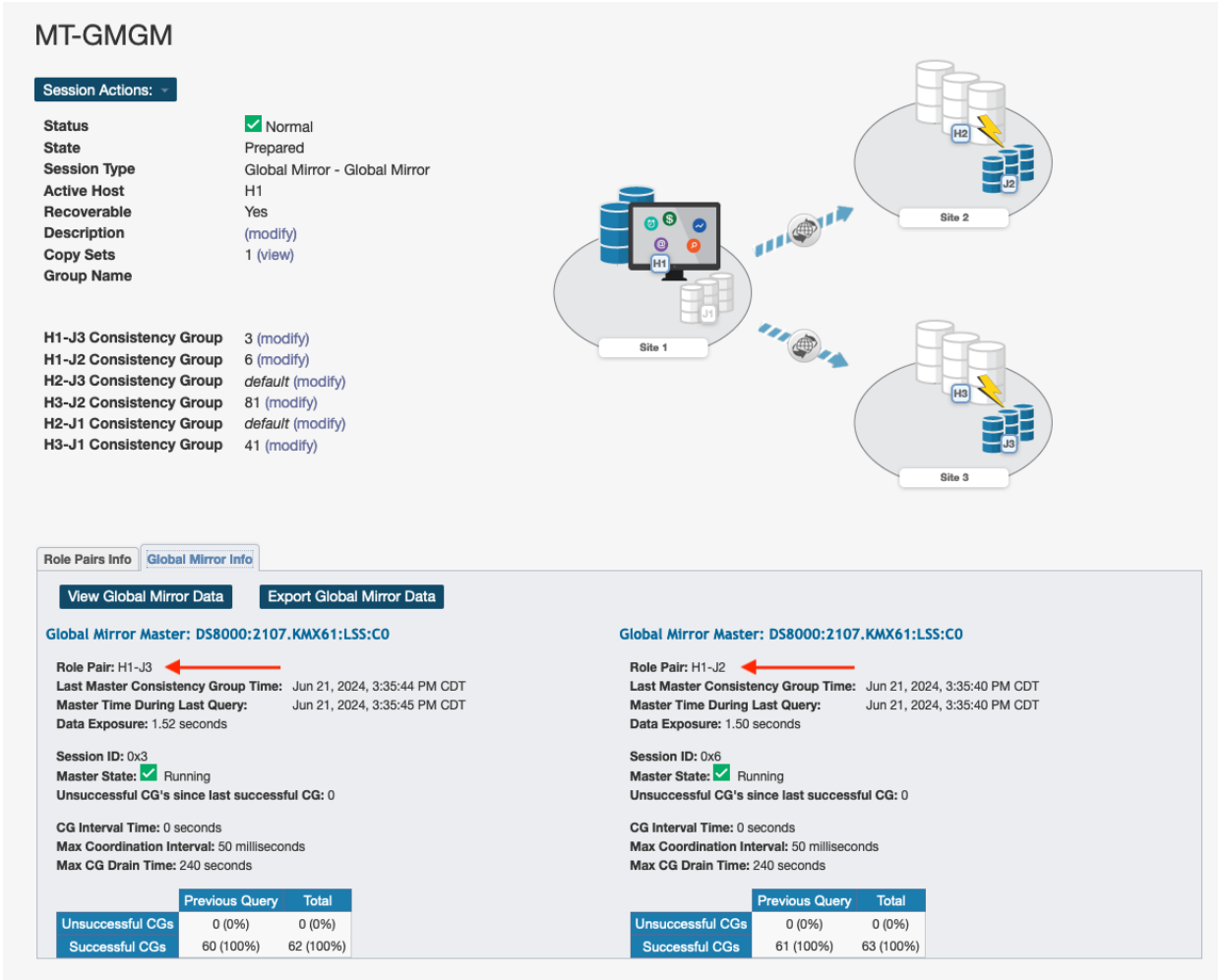
- Both the ESESizer and SGCSizer sessions only require a single volume in the copy set.
- In previous releases, while you could multi-select all the volumes in an LSS, you had to go through the wizard another time to choose the volumes in a different LSS.
- In 6.3.11, you can now multi-select at the LSS level.
- When multi-selecting LSSs, all volumes in the selected LSS will get added to the session.
- In addition, when single selecting an LSS, there are new Select All or Deselect All buttons allowing for easier selection.



© Copyright IBM Corporation 2024

IDEA CSM-I-162 – Display Role Pair on DS8000 Global Mirror Info Tab

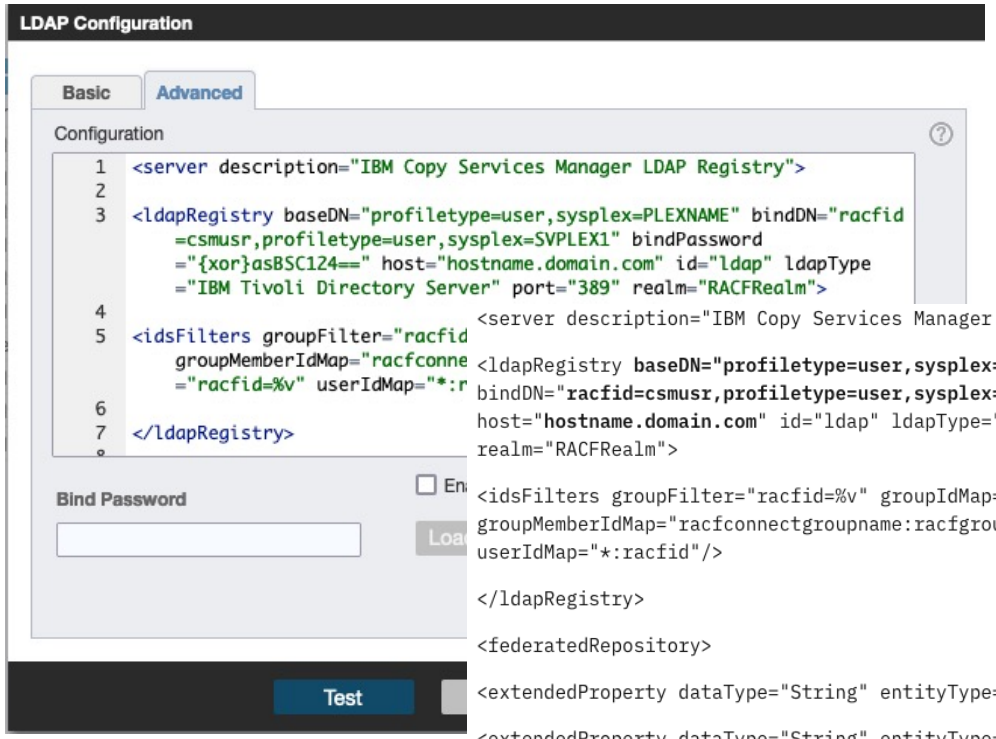
- CSM 6.3.9 and DS8000 9.4 introduced the ability to have more than 1 active GM role pair in a session.
- Both the Global Mirror – Global Mirror session (which defines a multi-target Global Mirror relationship), as well as the 4-Site Replication Enhanced session (which defines a cascaded Global Mirror relationship), might have more than one active Global Mirror relationship.
- When there is more than one Global Mirror relationship, the Global Mirror Info tab will display the details for each of the Global Mirror sessions on the hardware.
- Starting with 6.3.11, a new “Role Pair” field will now display with each entry, so that you can easily tell which details are for what Role Pair in the session.



© Copyright IBM Corporation 2024

Support LDAP for z/OS RACF

- CSM has always supported both Basic users as well as LDAP users.
- Starting with 6.3.11, CSM now supports the ability to define an LDAP server running on z/OS with the SDBM backend.
- This setup can be done through the Advanced Setup tab for LDAP using the following XML, updating the bold values for your environment.
- This support provides mainframe customers the ability to setup CSM on a Distributed server while still using the same RACF users defined on the z/OS system with the volumes that CSM is managing.

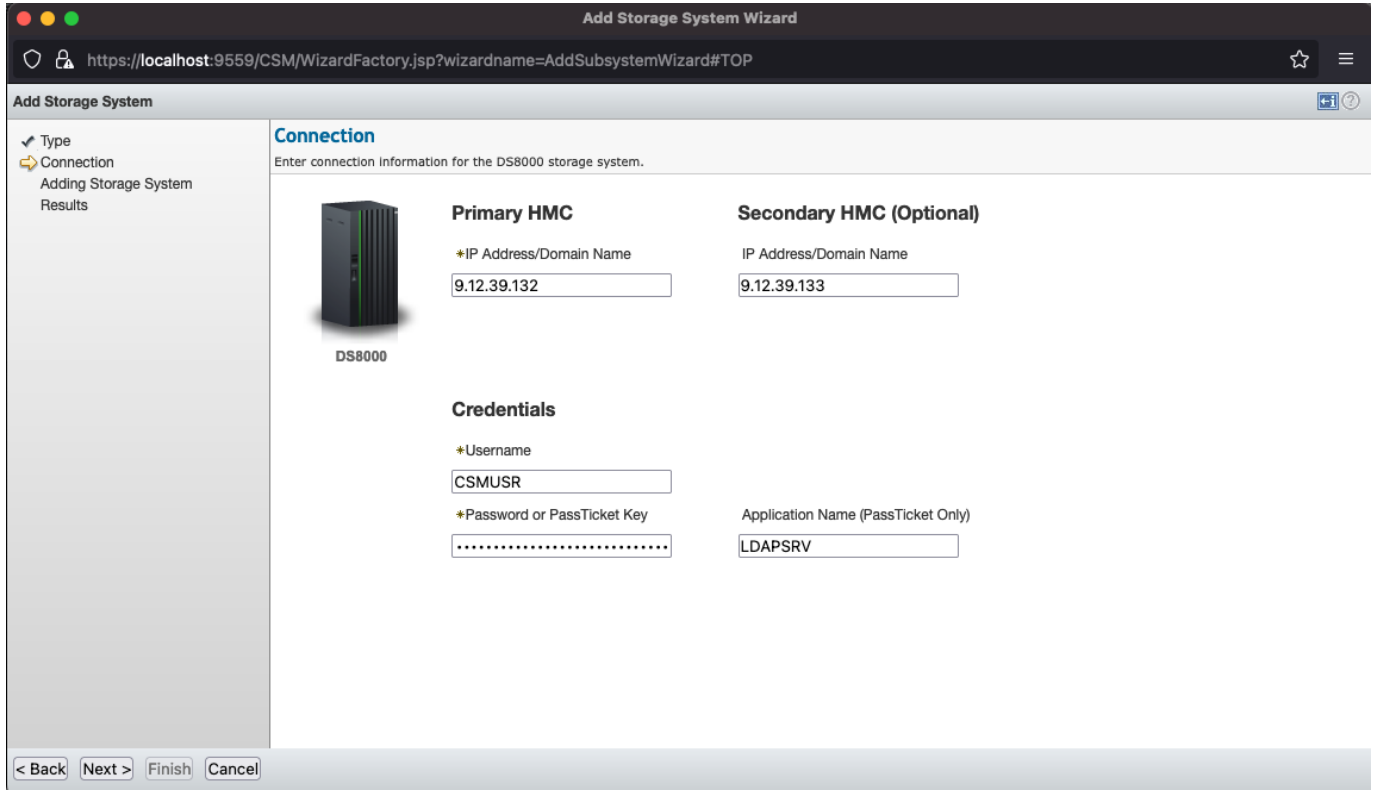



```
<server description="IBM Copy Services Manager LDAP Registry">

<ldapRegistry baseDN="profiletype=user,sysplex=PLEXNAME"
bindDN="racfid=csmusr,profiletype=user,sysplex=SVPLEX1" bindPassword="{xor}asBSC124=="
host="hostname.domain.com" id="ldap" ldapType="IBM Tivoli Directory Server" port="389"
realm="RACFRealm">

<idsFilters groupFilter="racfid=%v" groupIdMap="*:racfid"
groupMemberIdMap="racfconnectgroupname:racfgroupuserids" userFilter="racfid=%v"
userIdMap="*:racfid"/>

</ldapRegistry>

<federatedRepository>

<extendedProperty dataType="String" entityType="PersonAccount" name="racfid"/>

<extendedProperty dataType="String" entityType="Group" name="racfid"/>

<primaryRealm name="FederatedRealm">

<participatingBaseEntry name="profiletype=user,sysplex=PLEXNAME"/>

<userDisplayNameMapping inputProperty="racfid" outputProperty="racfid"/>

<userSecurityNameMapping inputProperty="racfid" outputProperty="racfid"/>

<groupSecurityNameMapping inputProperty="uniqueName" outputProperty="uniqueName"/>

<uniqueGroupIdMapping inputProperty="uniqueName" outputProperty="uniqueName"/> </
primaryRealm> </federatedRepository>

</server>
```

© Copyright IBM Corporation 2024

Support for Connecting to DS8000 Storage Systems using z/OS Passtickets

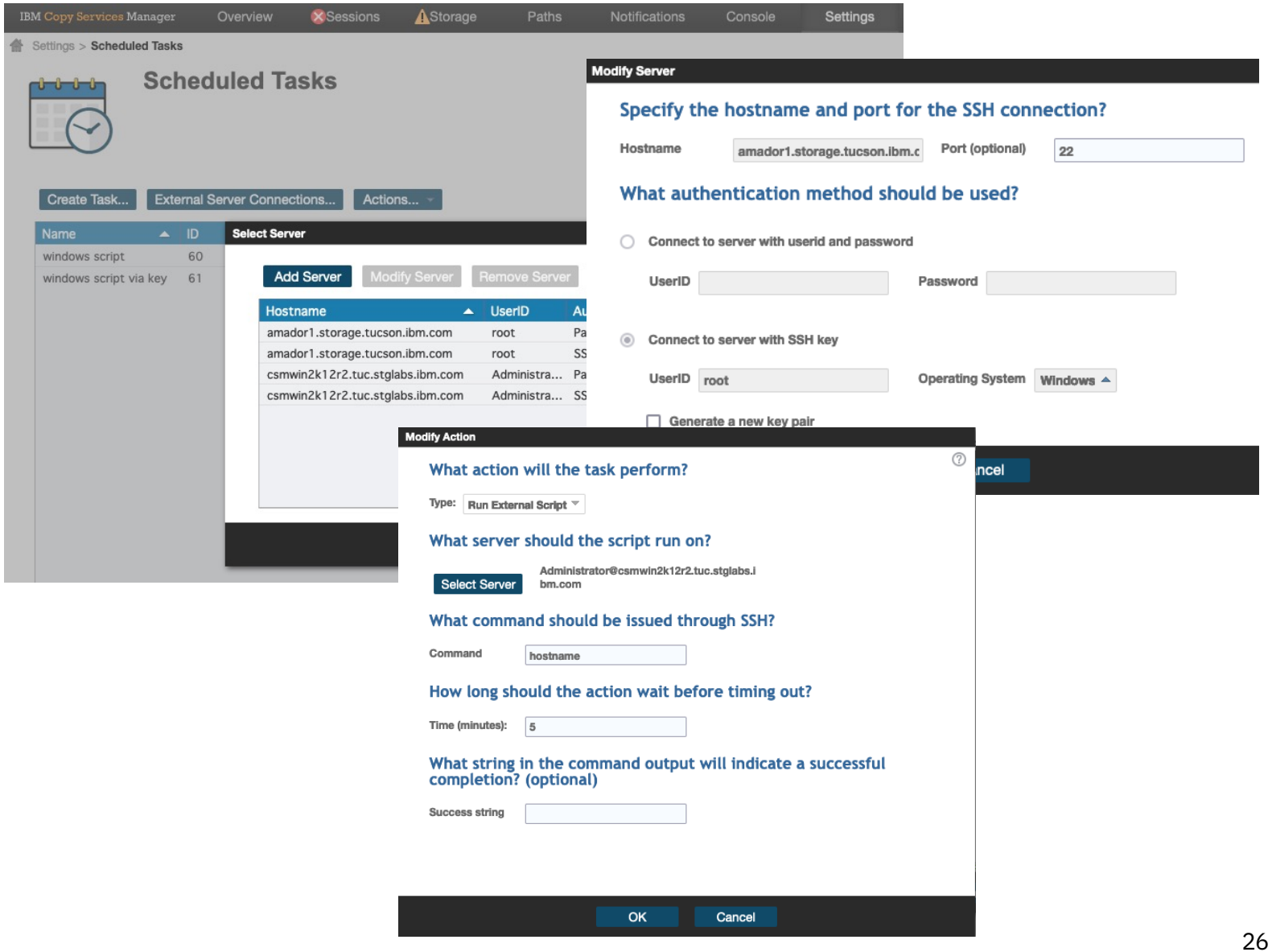
- Today CSM supports connecting to the DS8000 storage system using a userid and a static password.
- With most customers now requiring rolling passwords for security, this becomes difficult to have to modify this password across all storage system connections when the password changes.
- Starting with CSM 6.3.11, CSM can now connection to the DS8000 with a z/OS Passticket.
- Users in RACF can be setup with a Passticket key which can be added to the CSM DS8000 connection instead of a password. Every time CSM attempts to connect to the storage system, a new Passticket is created to authenticate to RACF. This means the password is ALWAYS different and doesn't need to be modified in CSM.
- To support DS8000 Passticket connections, the DS8000 must be setup for LDAP for z/OS RACF with the SDBM backend.



© Copyright IBM Corporation 2024

Support Scheduled Task Run External Script Action with SSH Key Pair

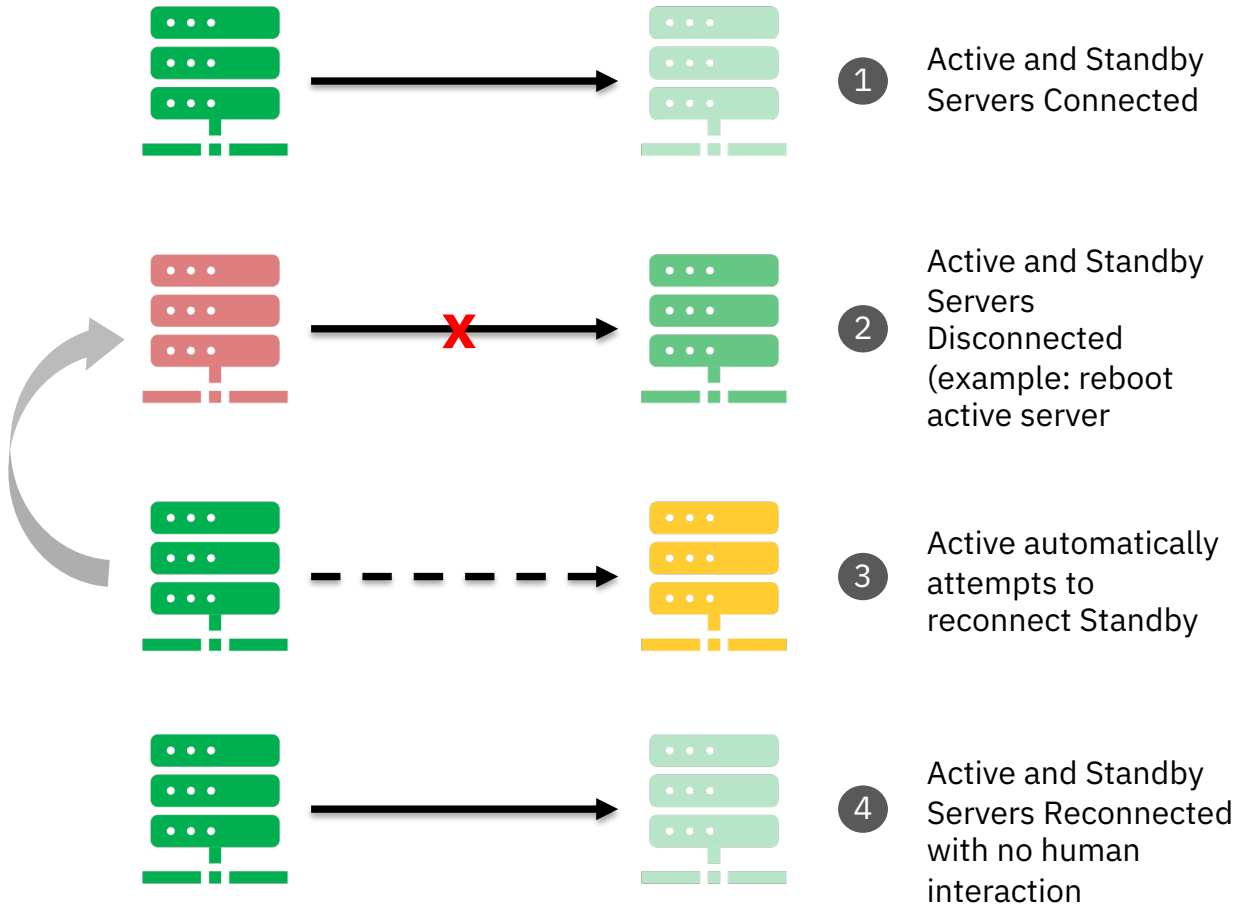
- The Scheduled Task Action 'Run External Script' allows customers today to execute external scripts via an SSH userid / password.
- Starting with 6.3.11, customers can now setup an SSH key pair for the Run External Script action instead of using a static password.
- To setup an SSH key you can now define an External Server connection which can be used across multiple Scheduled Tasks.
- If the server connection is setup for an SSH key connection, you can then export the key and apply that key on the server that will be called by the Scheduled Task.



© Copyright IBM Corporation 2024

IDEA CSM-I-160 – Automatically reconnect active and standby servers after a disconnect

- When an Active and Standby server disconnects the standby will go into a Disconnected Consistent state.
- Starting with the 6.3.11 release, after a disconnect, the active server will automatically attempt to reconnect to the standby.
- The active will attempt to reconnect by default every minute for up to 10 minutes. If it cannot reconnect within that time a manual reconnect will be necessary.
- When the active server automatically reconnects, before sync'ing the servers, a backup will be taken automatically on the standby server to ensure a consistent image is preserved of the standby config.
- If a takeover is issued to the standby server, the active will see this on the next attempt to reconnect and will stop trying to reconnect.
- NOTE: When upgrading the active and standby servers it is always recommended to issue a takeover on the standby server prior to the upgrade process.



© Copyright IBM Corporation 2024

IBM System Storage Ideas Portal!!! → New RFE Portal for CSM

https://ibm-sys-storage.ideas.ibm.com/ideas?project=CSM

- The CSM RFE process has been converted to the new IBM System Storage Ideas Portal.
- With the change, IBM is moving to a more common Aha! based process for customers to submit ideas across all IBM products.
- All existing RFEs have been converted to Ideas. When you visit an RFE for status it will direct you to the Idea for that RFE in the Idea Portal.

IBM System Storage Ideas Portal

Shape the future of IBM!

We invite you to shape the future of IBM, including product roadmaps, by submitting ideas that matter to you the most. Here's how it works:

Post your ideas

Start by posting ideas and requests to enhance a product or service. Take a look at ideas others have posted and upvote them if they matter to you,

1. Post an idea
2. Upvote ideas that matter most to you
3. Get feedback from the IBM team to refine your idea

Help IBM prioritize your ideas and requests

The IBM team may need your help to refine the ideas so they may ask for more information or feedback. The offering manager team will then decide if they can begin working on your idea. If they can start during the next development cycle, they will put the idea on the priority list. Each team at IBM works on a different schedule, where some ideas can be implemented right away, others may be placed on a different schedule.

Receive notification on the decision

Some ideas can be implemented at IBM, while others may not fit within the development plans for the product. In either case, the team will let you know as soon as possible. In some cases, we may be able to find alternatives for ideas which cannot be implemented in a reasonable time.

© Copyright IBM Corporation 2024

Thank You!

© Copyright IBM Corporation 2024

Accelerate with ATG Survey

Please take a moment to share your feedback with our team!

You can access this 6-question survey via Menti.com with code **1708 6924** or

Direct link https://www.menti.com/alwhyze7z1gz

or

QR Code

© Copyright IBM Corporation 2024