



ADVANCED TECHNOLOGY GROUP (ATG)



Accelerate with ATG Webinar: **Take Your CSM to the Next Level: What's New in IBM** **Copy Services Manager 6.3.12 & 6.3.13**

Randy Blea

STSM – DS8000 Copy Services Software Architecture

CSM & DS8000 Automation

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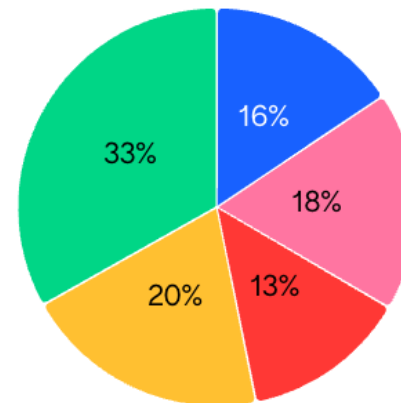
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- 16% The Power of Perseverance: I'll conquer any challenge that comes my way.
- 18% The Power of Patience: I'll embrace the journey and celebrate small victories.
- 13% The Power of Positivity: I'll radiate good vibes and attract positive experiences.
- 20% The Power of Productivity: I'll achieve more than ever before, efficiently and effectively.
- 33% The Power of Presence: I'll savor every moment and live fully in the present.



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Meet the Speakers



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.

What's New in IBM Copy Services Manager V6.3.12

[IDEA CSM-I-161](#) - Re-add small Global Mirror RPO graphs for DS8000

Additional Operator actions now available for server and connection management

[IDEA CSM-I-173](#) – Add ability to set “From” address on email notifications

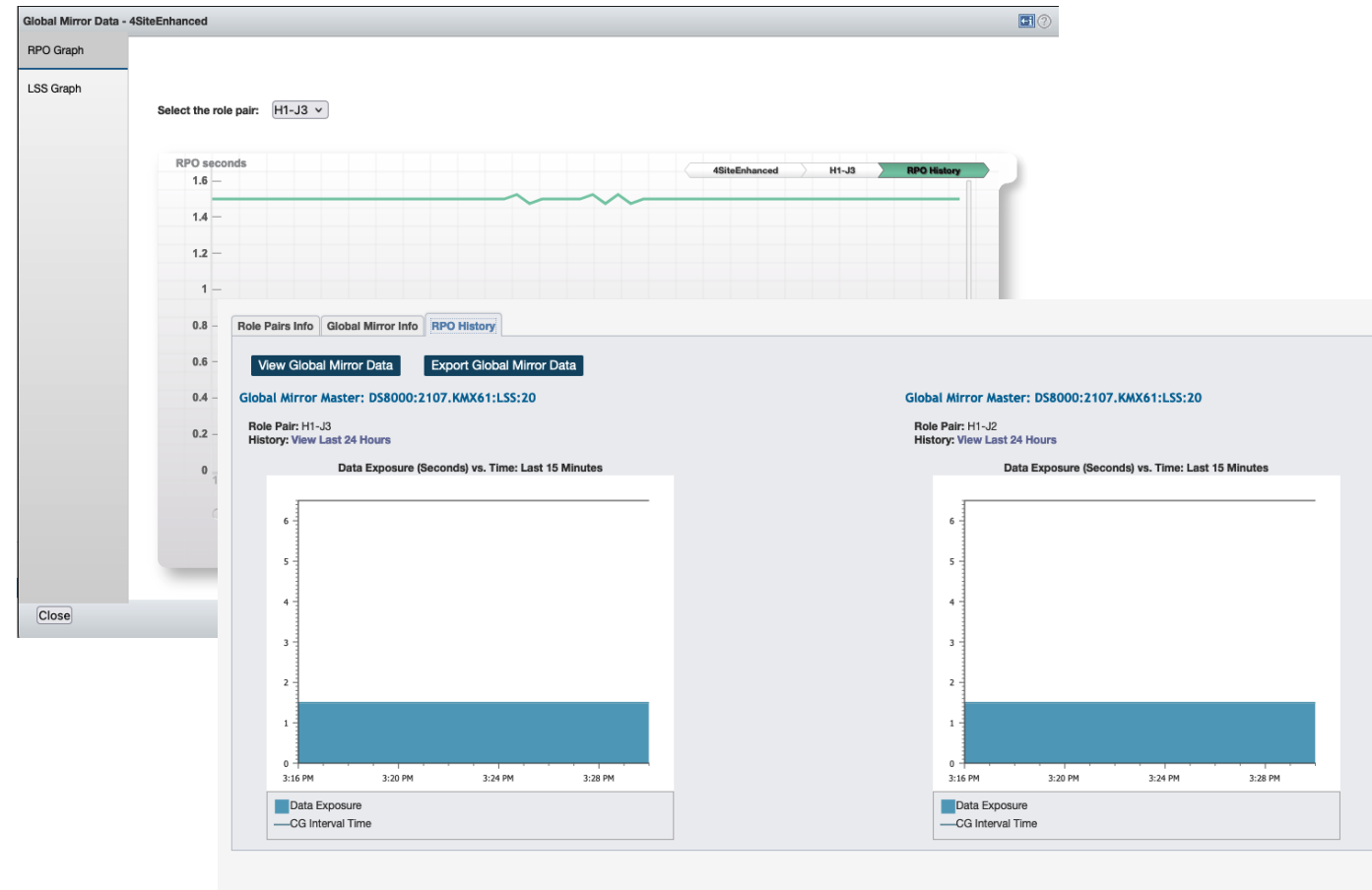
By default, automatically start Global Mirror after a HyperSwap 3 site and 4 site sessions

[IDEA CSM-I-169](#) – Setup password policies for Basic Users

Automatically put Active server into an inactive mode after a Standby takeover

IDEA CSM-I-161 - Re-add small Global Mirror RPO graphs for DS8000

- For DS8000 Global Mirror sessions, CSM stores historical information on the RPO for the session
- The RPO for each role pair in the session can either be exported to CSV, or viewed graphically
- In CSM 6.3.10, when Multi-target GM-GM support was added, the small GM RPO graphs were removed from the GM Info tab for the session due to space constraints
- Customers provided feedback that while you can bring up the big RPO viewer, the small RPO graph was nice for “at-a-glance” checks
- In CSM 6.3.12, the small RPO graphs have returned but are under the new RPO History tab in the Session Details.



Additional Operator actions now available for server and connection management

- Users or Groups in CSM can be setup with the role that provides them to do certain actions
- The User Administrator role was created awhile back which allows customers to setup the server with a separation of duties so that no users would need to have the Administrator role (which grants the ability to do anything on the server)
- There were certain actions though, such as managing storage connections or setting up active/standby servers, that still required that Administrator role.
- Starting with 6.3.12, there are two new actions that can be applied to a user/group with the Operator role.
 - **Manage Connections** – Allows the Operator to add/remove storage system connections or z/OS connections
 - **Manage Server** – Allows the user to modify server properties and setup the active/standby configuration

The screenshot displays the 'View/Modify Access for operator' interface. It features a sidebar with role selection options: Administrator, User Administrator, Operator (selected), and two partially visible options, 'Mo' and 'Aut'. The main panel shows the 'Operator' role selected, with a description: 'Operators can run commands on the sessions that they have been assigned.' Below this, a section titled 'What actions should the operator be allowed to perform?' offers two radio button options: 'Default operator actions against managed sessions' and 'Select which actions to allow against managed sessions' (which is selected). A table lists 21 actions, with 'Manage Connections' and 'Manage Server' highlighted in blue. The table has columns for 'Action' and 'Action Category'. At the bottom, there are 'Back', 'Next', and 'Close' buttons.

Action	Action Category
Restore Safeguarded Copy Backups	Point in Time and Safeguarded Copy
Terminate Safeguarded Copy Recovered Backups o...	Point in Time and Safeguarded Copy
Expire Safeguarded Backups	Point in Time and Safeguarded Copy
Add Copy Sets	Miscellaneous
Remove Copy Sets	Miscellaneous
Update Session Properties	Miscellaneous
Delete Session	Miscellaneous
ESE/SGC Sizer Management	Miscellaneous
Manage Connections	Miscellaneous
Manage Server	Miscellaneous

IDEA CSM-I-173 – Add ability to set “From” address on email notifications

- CSM supports both email and SNMP event notification from the server
- When setting up the email server that CSM should use for events, you can define a “reply-to” address which will be added to the notification so that recipients can respond in email to events
- The “from” value in the email notification though defaults to the hostname/ip of the CSM server itself.
- However, customers have indicated that in the environment, the “from” must be a valid email
- In previous versions of CSM you can force the “from” to a certain email using the Server property:
 - `csm.server.notification.sender.address`
- In CSM 6.3.12, you can now use the following property so that the “from” uses the “reply to” value set in the GUI
 - `csm.server.use_replyto_for_sender=true`

The image shows two parts of the IBM Copy Services Manager interface. On the left is a configuration file snippet, and on the right is the GUI for setting up email alerts.

Configuration File Snippet:

```

285 # Configuration for Replication Manager Server
286
287 csm.server.notification.sender.address=blead76@gmail.com
288 csm.server.notification.sender.name=Chuck Woolery
289
290 # -----
291 # Communications Configuration
292 # -----
293 communications.port=
294 communications.haPort=
295 communications.remote=
296 communications.remote=
297 communications.auth=
298
299 # Used to enable LDAP
300 csm.server ldap.enab
301
    
```

GUI Screenshot:

The GUI shows the 'Alert Notifications' settings page. The 'Email' tab is selected. The 'Email server for sending alert notifications' section shows:

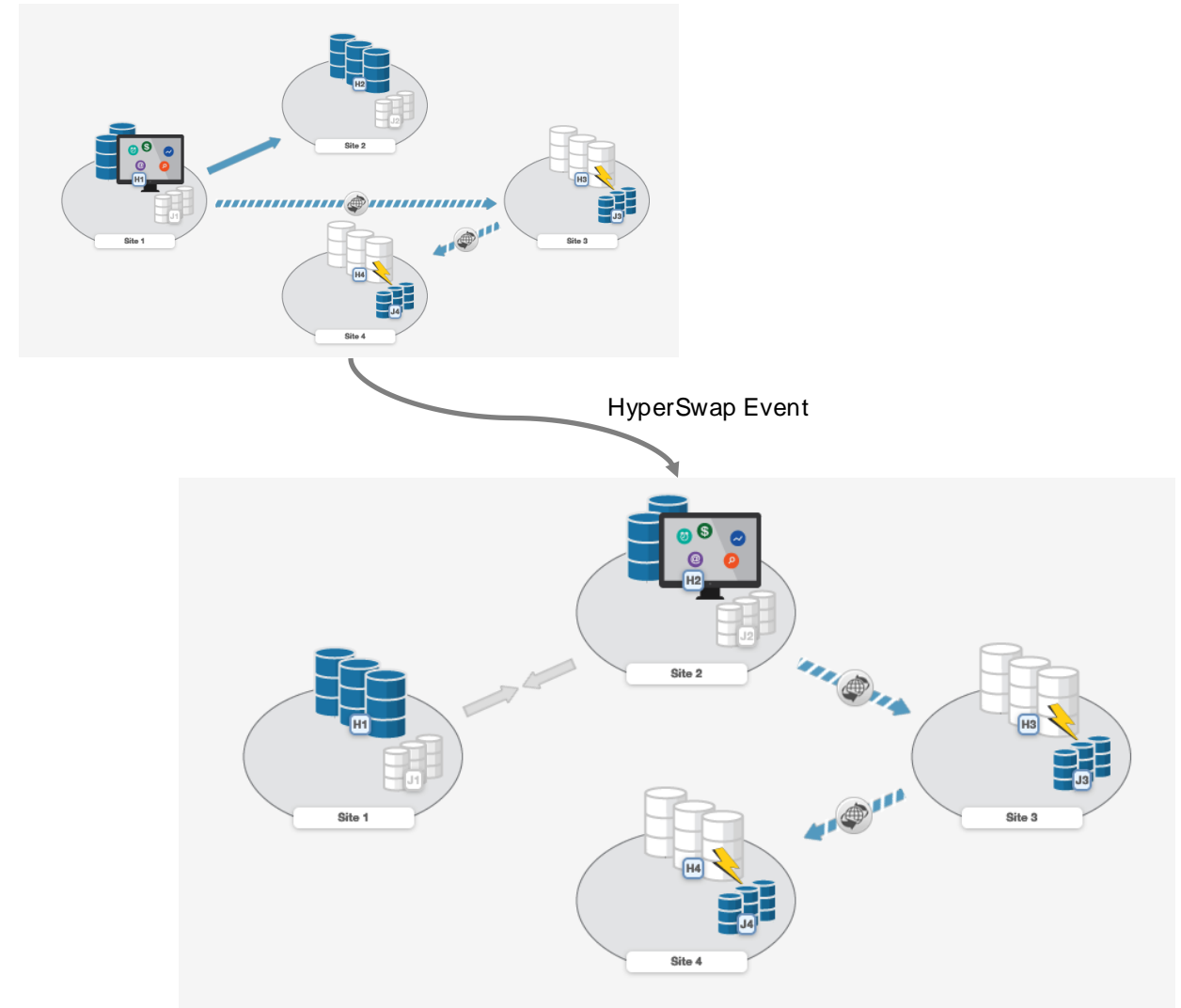
- Email server: na.relay.ibm.com
- Port: 25
- Reply-to address: blead@us.ibm.com (highlighted with a red arrow)

Below this, there are buttons for 'Edit', 'Remove', and 'Test'. The 'Email alert recipients' section shows a table with the following data:

Email alert recipients	Type	Sessions
blead@us.ibm.com	Active Standby Connected	
operator	Active Standby Disconnected	

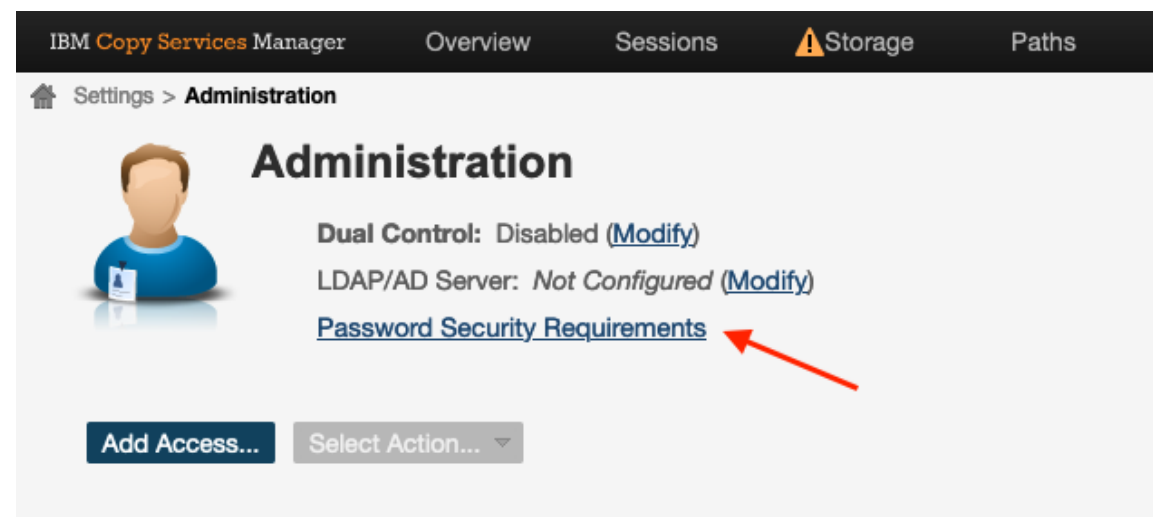
By default, automatically start Global Mirror after a HyperSwap 3 site and 4 site sessions

- This change affects all 3 site or 4 site Replication sessions in CSM in a multi-target mode where z/OS HyperSwap is setup for the MM leg
- If a HyperSwap is issued or is triggered while running multi-target, in previous versions a customer would need to manually issue a start from the new site to get the hardware multi-target relationship running again to the remote site
- Starting with 6.3.12, by default, the session will attempt to automatically restart the replication to the remote site.
- Automatically attempting to restart the replication will help attempt to ensure that constant data protection is provided in the event that a HyperSwap occurs while no one is actively watching the session
- NOTE: This does also apply to the 3 site and 4 site multi-target MM-MM sessions



[IDEA CSM-I-169](#) – Setup password policies for Basic Users

- The CSM server supports both LDAP as well as Basic User configuration
- When using LDAP, CSM automatically handles the password rules setup on the LDAP server itself
- Customers that use Basic Users however, have requested the ability to define password policies for these users
- Starting with CSM 6.3.12, the following policies can be setup for Basic Users:
 - **Expiration in Days:** This is the number of days until the user will have to change their password.
 - **Minimum Length:** This is the minimum number of characters the password will need to be
 - **Mixed Case:** Defines whether the password has to have upper AND lower case letters
 - **Numbers:** Defines whether the password has to contain a number
 - **Symbols:** Defines whether the password has to contain one of the supported symbols



Set Password Security Requirements for Basic Users

Expiration in Days:

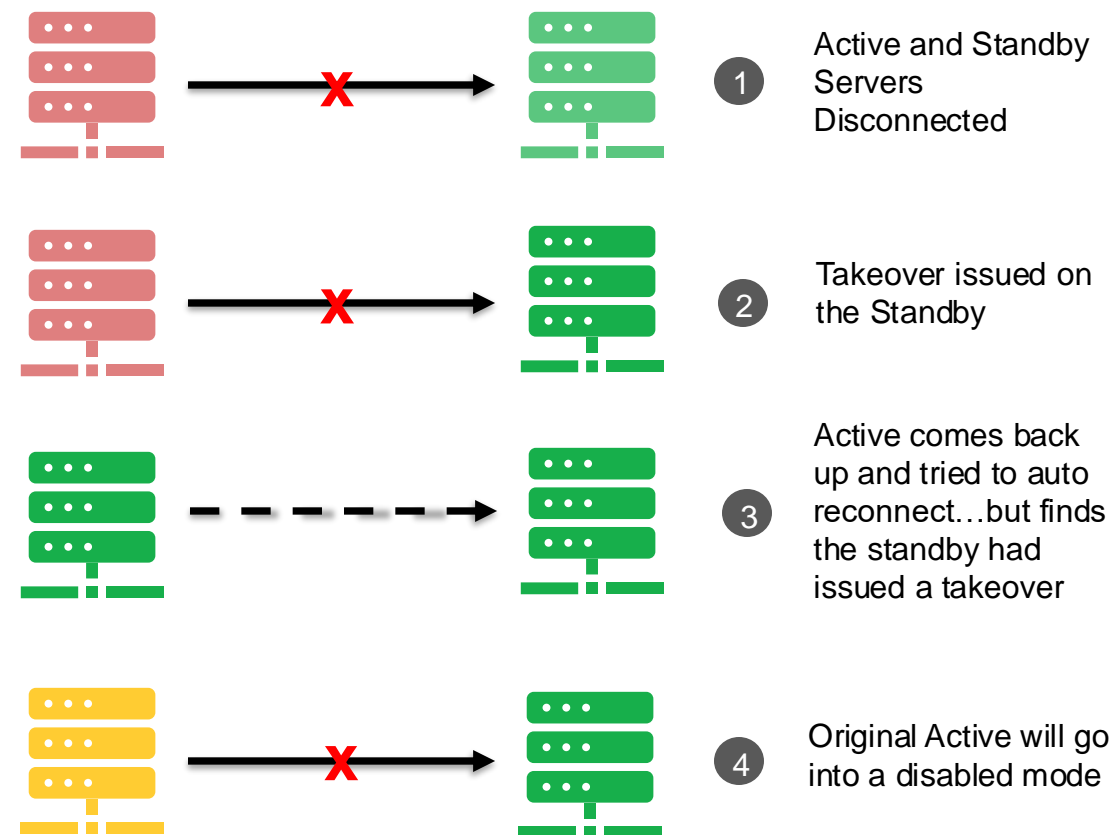
Minimum Length:

Required Characters: ☐ Mixed Case ☐ Numbers ☐ Symbols

OK Cancel

Automatically put Active server into an inactive mode after a Standby takeover

- In the 6.3.11 release support was added to automatically resync the active and standby server if connection between the servers is regained
- However, if a takeover has to be issued at the standby server, this “could” result in having two active servers when the active server comes back up
- Once a server is “active” any scheduled tasks defined on the server will start running the schedule, which may result in duplicate actions issued to the hardware
- In 6.3.12, when the active server comes back up and attempt to reconnect to the standby, it will now see whether a takeover has been issued to that standby. If a takeover was issued, the active server will go into an inactive (standby) mode.
- While in an inactive (standby) mode, the original active server will not run scheduled tasks nor react to hardware events
- In this inactive (standby) mode you can either make the server a standby or you can issue the Takeover command which will make it active again



What's New in IBM Copy Services Manager V6.3.13

Rename Spectrum Virtualize to Storage Virtualize in CSM

[IDEA CSM-I-154](#) – Disable Email Notifications Temporarily

[IDEA CSM-I-111](#) – Provide Warning when CSM certificate is about to expire

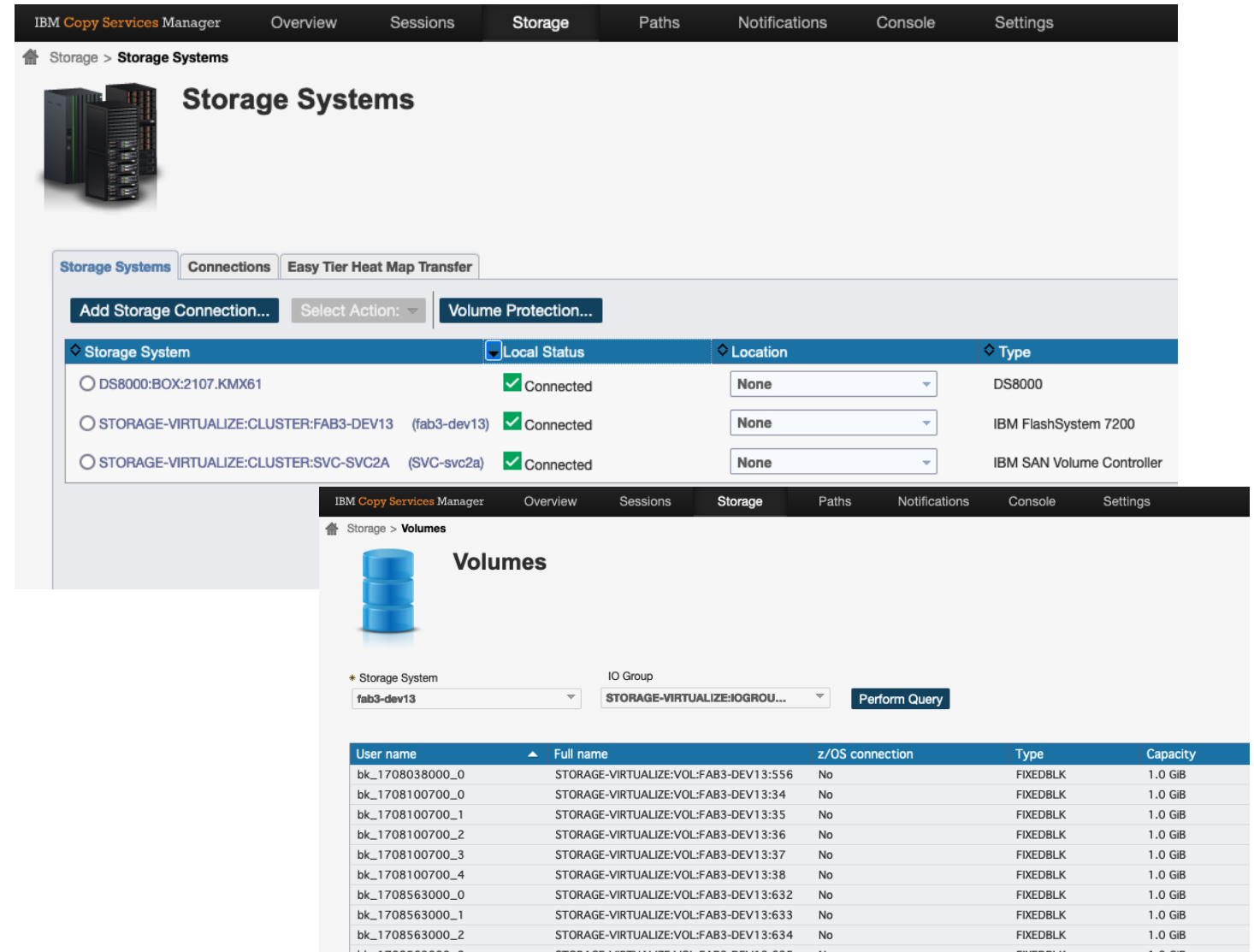
[IDEA CSM-I-180](#) – Do not enforce password expiration for Automation users

Do not include DS8000 G10 volumes in replication volume counts on Health Overview

Support for FlashSystems Policy Based Asynchronous Replication with High Availability

Rename Spectrum Virtualize to Storage Virtualize in CSM

- When connecting to a storage system, the storage system and volumes are generated with a unique name on the server
- For SAN Volume Controller based storage systems, these were previously labeled as Spectrum Virtualize storage systems
- Starting with 6.3.13, all storage systems and volumes of this type will automatically be converted to the new name “Storage Virtualize” to match the brand name change
- The Storage systems panel will continue to indicate the actual Type of storage system, such as FlashSystem 7200
- Note that some scripts may have to be updated to accommodate for the name change



The screenshot displays the IBM Copy Services Manager (CSM) interface, specifically the Storage and Volumes sections.

Storage Systems Panel:

- Navigation: Storage > Storage Systems
- Buttons: Add Storage Connection..., Select Action: (dropdown), Volume Protection...
- Table Columns: Storage System, Local Status, Location, Type
- Table Data:

Storage System	Local Status	Location	Type
DS8000:BOX:2107.KMX61	Connected	None	DS8000
STORAGE-VIRTUALIZE:CLUSTER:FAB3-DEV13 (fab3-dev13)	Connected	None	IBM FlashSystem 7200
STORAGE-VIRTUALIZE:CLUSTER:SVC-SVC2A (SVC-svc2a)	Connected	None	IBM SAN Volume Controller

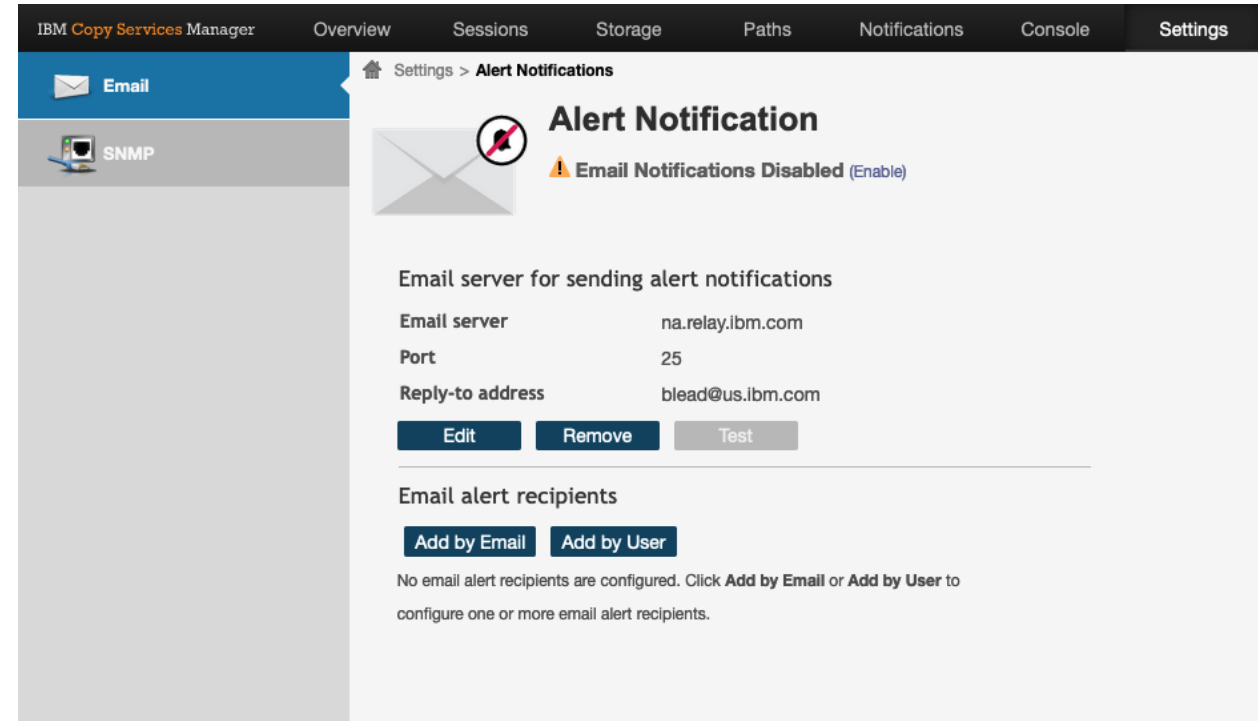
Volumes Panel:

- Navigation: Storage > Volumes
- Storage System: fab3-dev13
- IO Group: STORAGE-VIRTUALIZE:IOGROU...
- Button: Perform Query
- Table Columns: User name, Full name, z/OS connection, Type, Capacity
- Table Data:

User name	Full name	z/OS connection	Type	Capacity
bk_1708038000_0	STORAGE-VIRTUALIZE:VOL:FAB3-DEV13:556	No	FIXEDBLK	1.0 GiB
bk_1708100700_0	STORAGE-VIRTUALIZE:VOL:FAB3-DEV13:34	No	FIXEDBLK	1.0 GiB
bk_1708100700_1	STORAGE-VIRTUALIZE:VOL:FAB3-DEV13:35	No	FIXEDBLK	1.0 GiB
bk_1708100700_2	STORAGE-VIRTUALIZE:VOL:FAB3-DEV13:36	No	FIXEDBLK	1.0 GiB
bk_1708100700_3	STORAGE-VIRTUALIZE:VOL:FAB3-DEV13:37	No	FIXEDBLK	1.0 GiB
bk_1708100700_4	STORAGE-VIRTUALIZE:VOL:FAB3-DEV13:38	No	FIXEDBLK	1.0 GiB
bk_1708563000_0	STORAGE-VIRTUALIZE:VOL:FAB3-DEV13:632	No	FIXEDBLK	1.0 GiB
bk_1708563000_1	STORAGE-VIRTUALIZE:VOL:FAB3-DEV13:633	No	FIXEDBLK	1.0 GiB
bk_1708563000_2	STORAGE-VIRTUALIZE:VOL:FAB3-DEV13:634	No	FIXEDBLK	1.0 GiB
bk_1708563000_3	STORAGE-VIRTUALIZE:VOL:FAB3-DEV13:635	No	FIXEDBLK	1.0 GiB

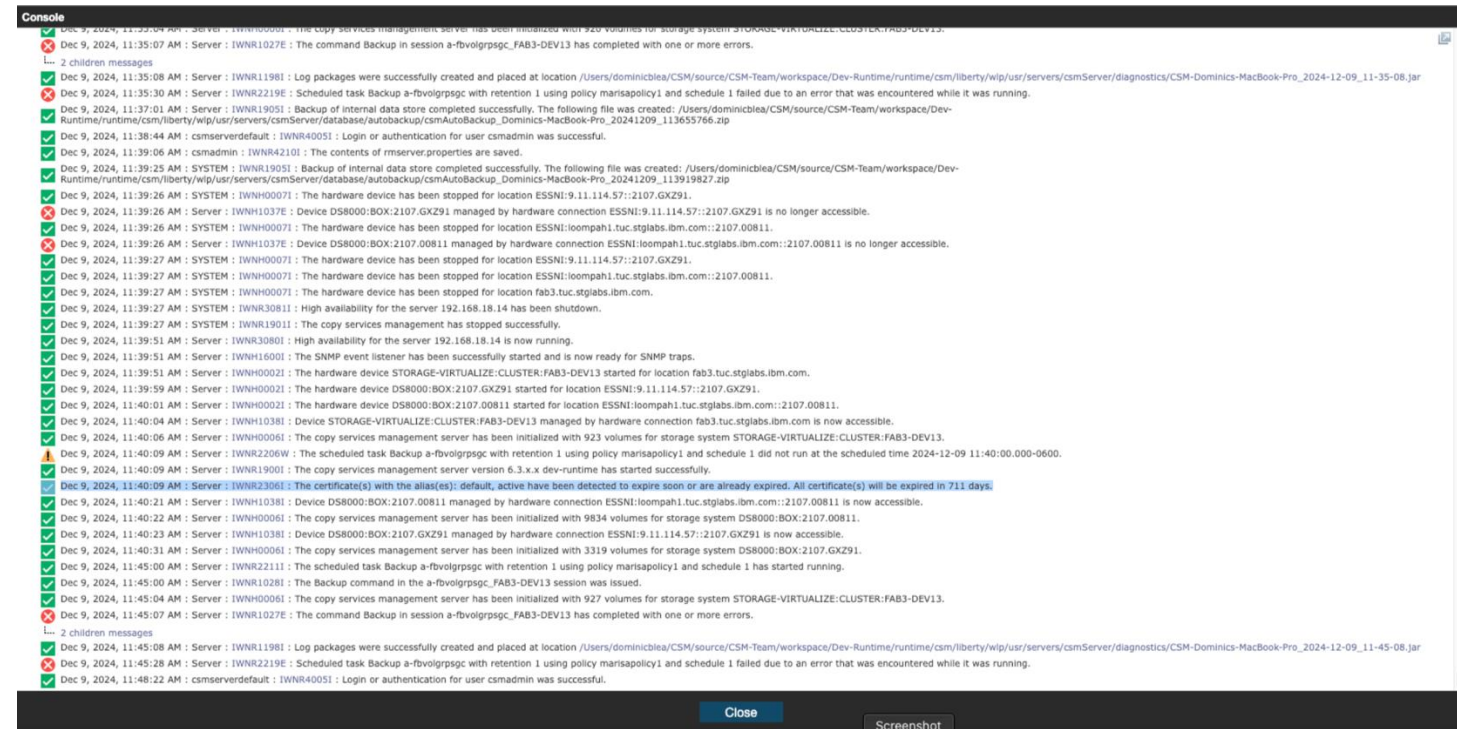
IDEA CSM-I-154 – Disable Email Notifications Temporarily

- CSM can be setup to send email and SNMP notifications for various alert categories
- SNMP events are typically filtered out with automation, but email alerts are typically just sent directly to the recipient's inbox
- During planned events that may involve a lot of transitions, customers may get a flood of emails to their inbox.
- Starting with 6.3.13 you can now disable Email Alerts from the Settings->Alert Notifications->Email panel
- At the top of the panel click the “Disable” link to disable all email notifications.
- Email notifications will be disabled until the “Enable” link is clicked
- The icon at the top of the page will change to quickly show the state of email alert notifications



IDEA CSM-I-111 – Provide Warning when CSM certificate is about to expire

- CSM installs with a default self signed certificate
- Customers however can request 3rd party certificates which can be applied to the CSM server via the Advanced Tools panel.
- The issue with this however, is that there is no notification when the certificate may expire, and customers must ensure they track this properly.
- Starting with the 6.3.13 release, the CSM server will now automatically check the certificates daily
- If the certificates will expire in less than 30 days, the IWNR2306I message will be sent to the console as well as in an alert to let the customer know that they should replace the certificate
- This will occur daily until the certificate is replaced or the certificate expires



IDEA CSM-I-180 – Do not enforce password rules for Automation users

- In the CSM 6.3.12 release, Administrators and User Administrators were given the ability to set rules on passwords for all basic users defined on the server
- These rules included an expiration time after which the user would be required to change their password
- The Automation user role however was developed to give a user limited access and to provide automation capabilities through interfaces such as REST, python or Ansible
- Starting with 6.3.13, Automation user passwords will not expire despite what expiration is set in the password rules. This will help to ensure there is no disruption to automation
- If you require automation but need that password to expire and be reset after x days, an Operator user role can be used instead, with only the selected actions you need to automate.



IBM Copy Services Manager Overview Sessions Storage Paths Notifications

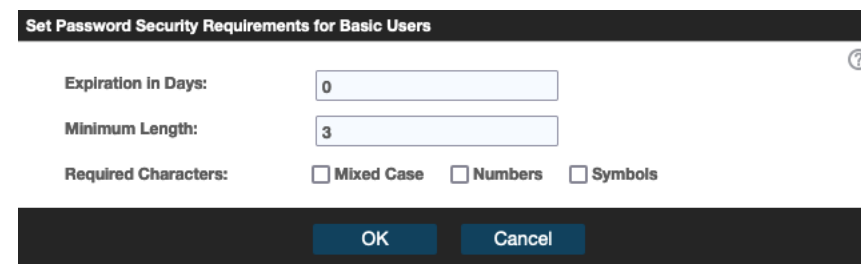
Settings > Administration

Administration

Dual Control: Disabled ([Modify](#))
 LDAP/AD Server: Not Configured ([Modify](#))
[Password Security Requirements](#)

[Add Access...](#) [Select Action...](#)

Name	Classification	Role	Actions
aa_rc_op	User	Operator	Suspend Remote Copy Relationship
amy	User	Operator	Default
auto	User	Automation	Default



Set Password Security Requirements for Basic Users

Expiration in Days:

Minimum Length:

Required Characters: ☐ Mixed Case ☐ Numbers ☐ Symbols

[OK](#) [Cancel](#)

Do not include DS8000 G10 volumes in replication volume counts on Health Overview

- Customers that purchase DS8000 G10 storage systems with the copy services features enabled are ENTITLED to use CSM for managing the G10 volume replication
- The CSM session Health Overview panel has volume counts as well as a count of the total source TiB replicated
- Starting with CSM 6.3.13, the Health Overview panel will now list the Total licensable source data replicated, which does NOT include the source TiB as these volumes are entitled under the G10 storage system and do not need external CSM licensing



Support for FlashSystems Policy Based Asynchronous Replication with High Availability

- In 3Q24 FlashSystems added the ability to setup High Availability as part of the Asynchronous Policy Based Replication, providing both disaster recovery and high availability
- Starting with the CSM 6.3.13 release, CSM will now recognize both Partition Based Asynchronous Based Replication as well as Asynchronous Based Replication with High Availability
- When CSM sees a Volume Group with these policies, an Asynchronous Policy Based Replication session will automatically be created
- If High Availability has been setup as part of the policy, CSM will display the current state under the H1 HA Status field
- Changes in the state of High availability will be reflected on this field, the session overview panel as well as the session status
- Session details include additional information for the upper and lower partition if replication is partition based
- All existing Async features will still be possible such as Failover and Test for Recovery

IBM Copy Services Manager

OverviewSessionsStoragePathsNotificationsConsoleSettingscsadminIBM

Sessions > RC_SVCHA1_FS52002

Last Update: Dec 12, 2024, 2:04:23 PM

RC_SVCHA1_FS52002

Session Actions: ▾

Status

State

Session Type

Active Host

Recoverable

Description

Copy Sets

Group Name

✓ Normal

Prepared

Async Policy Based Replication

H1

Yes

Automatically created AsyncPBR session(modify)

5 (view)

Automatically Generated Session

Volume Group Name

RPO Alert (min)

H1 Management System

H1 Secondary System

H1 Partition

H1 HA Status

H2 System

H2 Partition

SVCHA1

10

fs5200z1731

FS52002

CSMtest

Enabled

FS52001

CSMtest_DR

Participating Role Pairs:

Role Pair	Error Count	Recoverable	Copying	Progress	Copy Type	Timestamp
H1→H2	0	5	5	00:00:00	AsyncPBR	n/a

Site 1

Site 2

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.

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](https://www.menti.com/join/51510447) with code 5151 0447 or

Direct link <https://www.menti.com/alhsf3bgvxu6>

Or

QR Code



Thank you!