

Setting Up Quest[®] QoreStor[™] with BridgeHead

Technical White Paper

Quest Engineering February 2023

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Legend

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- WARNING: A WARNING icon indicates a potential for property damage, personal injury, or death
 CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.
 - IMPORTANT, NOTE, TIP, MOBILE, or VIDEO: An information icon indicates supporting information.

Setting Up Quest[®] QoreStor[™]with BridgeHead

Updated - February 16, 2023

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Executive Summary

This paper provides information about how to set up Quest[®] QoreStor™ as a backup target for BridgeHead Backup software.

For additional information, see the QoreStor documentation and other data management application best practices whitepapers for your specific QoreStor version at:

https://support.quest.com/qorestor/

NOTE: The QoreStor and BridgeHead screenshots used in this document may vary slightly, depending on the QoreStor and BridgeHead versions you are using.

1. Installing and configuring QoreStor

- 1 Before installing QoreStor, refer to the *QoreStor Interoperability Guide* to ensure your system(s) meet the installation requirements.
- 2 To install QoreStor on your system(s), follow the procedures documented in the *QoreStor Installation Guide*.

Using a supported web browser (refer to *QoreStor Interoperability Guide* for a list of supported browsers), connect to the QoreStor administrative console via https, using the host IP address/FQDN and port 5233 (https://<hostname:5233>). Log in with the username admin and password stor@ge! (The "0" in the password is the numeral zero).

Q QoreStor™ × +		
← → C ▲ Not secure qspl-6300-07.systest.ocarina.local:5233/#/login		☆
	QoreStor™	
	Sign In	
	© 2021 Quest Software Inc. ALL RIGHTS RESERVED,	

Setting Up Quest® QoreStor™ with BridgeHead Contents

2. Creating a CIFS container for use with BridgeHead

1 Select the **Containers** tab, then click **Add container**.

Quest Qor	eStor			5	🗘 admin ~
ılı Dashboard		Containers (0)		Version	System Status
🖻 Containers				7.0.1.409	🗸 Healthy
😫 Local Storage					
🛆 Cloud Storage					
Cloud Tier			\circ		
Archive Tier			U		
Replications		N	o Containers Available		
🖬 System			Add Container		
Q Diagnostics					
名 Users					
🛱 Events					
Management					

2 Enter a container Name, select a Storage Group or leave the DefaultGroup option selected, and select NAS (NFS, CIFS) from the Protocol dropdown menu. Click Next.



3 Click the dropdown on the **Protocols** field then select the check mark for **CIFS**. Leave **Marker Type** on **Auto**, then click **Next**.

Add Container	×
Auto	
Select All	
CIFS	

4 Fill in the CIFS Client Access options if needed then click Next.



5 Confirm the settings and click **Finish**. Confirm that the container is added.



3. Adding QoreStor CIFS container to BridgeHead

- 1 Open BridgeHead Console Management console.
- 2 Under Backup Node, click Configuration. Double-click to open the Configuration File.



3 Search Staging_Area in the text editor. Use QoreStor container share UNC path for the Staging Area Path, define a Staging Area Name. Save the Configuration file.

```
HPT_BN - Notepad
```

File Edit Format View Help

```
; the staging area size is limited only by the amount of free disk
; space available.
;
; Staging_Area<_nn>_Path
; Specifies the full path of the staging area. For example
; C:\Stage\Stage1\. The default is no path, i.e. no staging area.
; Staging areas have to be defined in strict ascending order.
; For example if one defines staging areas 01, 02, 03, 05, 06 and 07,
; only staging areas 01, 02 and 03 will be taken into account.
; If not defined, Staging_Area_01_Path defaults to the Stage
; sub-folder of the Backup Node. Typically C:\Htape\BN\Stage.
Staging_Area_01_Path = \10.230.48.240sample
Staging Area 02 Path = C:\Stage\Stage2\
; Staging_Area<_nn>_Name
; Specifies a name for the staging area. This setting is optional.
; If you specify a staging area name, you can ask the Backup Node to
; select that particular staging area, rather than leave the choice
; to the Backup Node. The default is no name.
Staging Area 01 Name = HDMCIFS
Staging Area 02 Name = Stage2
; Staging Area< nn> Max Size
; Specifies the maximum size of the staging area, in MB. This setting
```

Note: The Backup Node for BridgeHead Healthcare Data Management requires appropriate permissions to the QoreStor CIFS Share for the step below to complete successfully. See **Appendix A** for setting up the BridgeHead Healthcare Data Management Backup Node account correctly. This should be done before the next step.

2.1 **Procedure for Unix/Linux Environment**

Notes:

Make sure that you can mount/verify the NFS share from the UNIX/Linux backup node. Please see **Appendix B** for how to mount/verify the NFS share.

The procedure for the Unix/Linux Environment is very similar to the procedure for the Windows Environment. One difference is that the configuration file of the Backup Node is **ht_media.def**, and the defaultlocation for the file is **"/etc/ht_media.def**".

For other details, please refer to the Procedure for the Windows Environment.

4. Create a New Backup Job with QoreStor CIFS container as the Target

1. Open BridgeHead Management Console. Click Schedule Manage under Control Node. Double-click to open the Schedule Manager.



2. Select Template schedules that contain suitable defaults for various job types. Click **OK**.

Schedule Tools Help		
Image: Create Imag	Import ≩ Export dule Database	
/ Schedule Daily operation	Media Daily Weekly	
■ None ■ qa-test-schedule ■ sch730	Create Schedule ×	
schvmware test-backup test-full test12 WIN_CN_OM	A schedule describes the dates on which jobs are to be run and media to be used (if any). New schedules can be based on template schedules or existing schedules. Implate schedules contain suitable defaults for various job types. Existing schedules are those already defined in the schedule database.	
	OK Cancel	

3. Select None and then click **OK.**

Control Node Schedule	Manager		
Schedule Tools H	elp		
Image: Create Imag	Display Import Compare Export Used by Schedule Database	3	
/ Schedule Daily operation None qa-test-schedule		Media	Daily [
sch730		1	F
E schvmware	Template Schedules		×
test-full test12 WIN_CN_OM	Select the most appropriate temp	nager OK	Cancel

4. Populate all the required fields and SelectMedia Manager under Media Management, and click **New**.

Schedule	Tools	Help	import													
reate Modify	L Rename	Used by	Cy Export	S	chedule M	anag	er									×
lew Modify	Organise	Inspect	Schedule Database	1	Schedule N	ame a	nd Cor	ment								_
Schedule					Name:	D	aily_Sc	hedule								1
Daily operation					Comment:											
a-test-schedule				•												_
ch730 chvmware				č	Recurrence	s								_		
est-backup				Ĵ,	Recurrent	e Nar	me			Aut	osave	Frequency	Scope		New	
est-full				•											Clone	
est12				~										\uparrow		
					۲								3	>	Rename Delete	
					Calendar								Media	a Manag	gement	
					June		`	/		202	1		0	None		
					SUN	MON	N TUE	WE	THU	FRI	SAT		۲	Media	Manager	
					_	_	1	2	3	4	5					
					6	7	8	9	10	11	12		_			
					13	14	15	16	24	18	19			Exclud	de Dates	
					20	28	22	30	24	20	20			Cou	unters	
														v	Cancel	
													0		Concer	

5. Select Disk in the Media Management option and click **Next.**

Create Modify Organise Inspect Export New Modify Organise Inspect Schedule Databas	Sched	General X
/ Schedule Daily operation Constraints of the schedule Sc	Com Recu	Recurrence name: Daily Scope Image: Full image: Frequency Image: Frequency Image: Bally image: B

6. Select all the required fields then click NEXT

ew Modify Organise Inspect Schedule Daly of the week and start times when this recurrence will be scheduled to run. Schedule Name Oays of the week and start times when this recurrence will be scheduled to run. Run on these days: Schedule Recu Monday Edit days Schetule Recu Monday Remove All Schetul Recu Recu Recu WIN_CN_OM Caler Caler Caler	Schedule Tools Help Schedule Tools Help Schedule Compare Modify Schedule Compare Schedule Compar	Schedgessteren	×
	w Modify Organise Inspect Schedule Database Schedule ally operation one 	Run Dates Scheit Name Comm Recut Monday Tuesday Wednesday Remove All Caler	×

7. Enter Stage Area Name, Application as BACKUP, click **Finish.**

Control Node Schedule Manager				
Schedule Tools Help				
Create Modify Organise Inspect Schedule Database New Modify Organise Inspect Schedule Database	Schedule Manager Media Propert	ies		×
/ Schedule	Name Disk Prin Comr Stage Max D Max D Applic	operties : Area Name: Jaily Savesets abion:	HDMCIFS 1 1 BACKUP V	
			< Back Finish Ca	cel



8. Click OK to save it.

Schedule Tools Help Schedule Tools Help Compare Schedule Tools Help Schedule Tools Help Schedule Tools Help Schedule Compare Schedule	Schedule Manager
New Modify Organise Inspect Schedule Database Schedule Daily operation None qa-test-schedule sch730 schwaree	Schedule Name and Comment Name: Daily_Schedule Comment: Recurrences
test-backup test-full test12 WIN_CN_OM	Recurrence Name Autosave Frequency Scope Daily Yes Daily Full Clone Modify Rename Delete
	Sun Mon Tue VED THU FRI SAT SUN MON Tue VED THU FRI SAT 6 7 0 8 9 0 10 11 12 13 14 0 15 0 16 0 11 12 20 21 0 2.0 2.1 0 2.0 2.1 0 2.0 2.1 0 2.1 0 2.0 2.1 0 2.0 2.1 0 2.0 0 0 Counters Counters 0/K Cancel

9. On Bridge HDM Management Console, click Object Manager under Control Node, which displays the Object Manager in the list. Double-click to open the Object Manager on right- hand side pane.

🜲 Management Console - Control N	lode	
🚱 🔨 General 📲 Report Manage	er 🔯 Log Viewer	
Open Refresh Diagnostics Gui	Jes Release Notes	
General Actions	Documentation	
🖃 🧄 Management Console	Control Node > Object Manager	
Control Node	Name 🖡	
Oject Manager	Diject Manager	C: \Htape\CN\bin\cn.exe"
Schedule Manager		
🙀 Service Manager		
E Service Node		
Backup Node		
Service Manager		
sekhar-w16-v4		
1		

10. Select the **Template objects** to contain default settings for particular tasks such as platform or database backups, storage policy applications, or reporting, and click **Next**.

Control Node Object I	Manager					
Object View Da	tabase Tools	Help				
Restore Utility Restore Utility Restore Save or run Eust Saveset Functions	View MasterLog View History	Wizard All fields Group of fields Modi	Single field Autosave ▼	Delete Delete Undelete Rename Organise	Create	Clone
/ Object ESXbackup object1 qs10backup	Create Object Create New Object from a template	ct : or an existing object		5	×	
	An object describe describe backups, template objects of Templa tasks si applicat Existing databa	es what to run and whe , reports, storage policy or existing objects. te objects contain defa uch as platform or data tion or reporting. g objects are those alre se.	ere and when to run y etc. New objects ult settings for par base backups, stor ady defined in the Back Next	n it. Objects can can be based on ticular rage policy object	el	

11. SelectWIN in the template list then click Next.



12. Enter the **Service Node** related info with the valid file path for the backup data source, click on Credential manager to set the password and then click **Next.**

Control Node Object Object View D	Manager atabase Tools	Help				
Restore Utility Save or run Eunctions	Siew MasterLo	g Wizard a main and a main a main and a main a ma	Single field utosave マ	Delete	Create	Clone Clone Recover
/ Object ESXbackup object1 qs10backup	Create Object Service Node				×	
	A Service Node operation initia to a Backup No Computer:	e is a computer whose data i ted a Control Node. During a de. localhost	s saved or restor a save, data is co	red by an ollected and sent	-	
	Path defines d	ata to be saved or restored	Creden	tial Manager		
	Path:	C:\dataset				
		< Ba	ick Next	> Canc	el	

13. Enter Backup Node related info.

Control Node Object	Manager				
Object View D	atabase Tools	Help			
Restore Utility Restore Restore Save or run Euprtions	View MasterLog	Wizard All fields	Single field Autosave 🝷	Delete	Clone
/ Object ESXbackup object1 qs10backup	Create Object Backup Node List		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		×
	Backup Nodes sto Save operations t the same node for 1st Computer an localhost administrator Additional B	ackup Nodes	Back	re than one node, tt node. Repeat d Credential Manager Cance	

14. Accept the defaults and click **NEXT.**

Control Node Object	Manager			
Object View D	atabase Tools	Help		
Restore Utility Restore Utility Restore	Stew MasterLog View History	Wizard Single field All fields Autosave • Group of fields	Delete	Clone
Functions	-	Modify	Organise	New
/ Object ESXbackup object1 qs10backup	Create Object Mailing the Job Lo	Þg		×
	Mail log v	vhen job ends ror ror or warning iys er < BackNext	> Cance	

15. Select the schedule, and click **NEXT**.

ᆽ 🗧 Control Node Object N	Manager			
Object View Da	atabase Tools	Help		
Restore Utility Restore Utility Restore Save or run Dist Journal List Saveset	Siew MasterLog Siew History Display	Wizard Single f	ield X Delete	Clone
/ Object ESXbackup object1 qs10backup	Create Object Scheduling Select a suitable	e schedule		
	Schedule: Dail Calendar June June 1 6 7 8 13 14 15 20 21 22 27 28 29	ZO21 ↓ 2021 ↓ 2 0 3 4 5 9 10 11 12 16 17 18 19 23 24 25 26 30 0 0 0	Schedule Manager Refresh schedules list	
		< <u>B</u> ack	Next > Cance	

16. Accept the defaults and click **Next**.

Control Node Object	Manager			
Object View Da	atabase Tools	Help		
Restore Utility Restore Utility Career Save or run Career Care	Siew MasterLog	Wizard Single field All fields Autosave \checkmark Group of fields Modify	Constant of the second	reate Cione Recovery New
/ Object ESXbackup object1 qs10backup	Create Object Scheduling			
	Tick the box below runs are not norm Overrid Full: Increment	v to override the start times in the schedu hally used for non-backup objects. le schedule start times o9:00 PM o7:00 PM CBack Next	> Cancel	

17. Accept the defaults and click Next.

Control Node Object	Manager (
Object View Da	atabase Tools	Help			
Restore Utility Restore Utility Restore Save or run List Saveset	S View MasterLog	Wizard All fields	Single field Autosave 🝷	Delete	Clone
/ Object	Create Object	<u> </u>		Organise	×
ESXbackup object1 qs10backup	Queue Names				
	Once scheduled, arrives and suffic to group jobs for	jobs are held in queue ient resources are ava common resources an	es. Jobs run as soon ailable. Different que d for easy monitorin	as their start time cues can be used g.	
	Full:	<htq></htq>	~		
	Increment Restore:	al: <httq></httq>	~		
			< Back Next	> Cance	2

18. Enter the Name of the Object then click **Finish** to save it.

Control Node Object N	/lanager				
Object View Dat	tabase Tools	Help			
Restore Utility Save or run Eust Saveset Functions	Signal View MasterLog	Wizard Si All fields Autos Group of fields Modify	ngle field 💥	Delete Undelete Rename Organise	Clone Cone Clone Clone Create New
/ Object ESXbackup object1 qs10backup	Create Object Object Name(s)				
	Each object must Consider OS namin node name and pa finishing. Name of sample_	be given a unique name withing conventions and restriction ath are recommended. Press of object to create backup	n the object data ns. Names associa Create to create	base. ated with a without Create	

19. The backup object summary is displayed on the Object list. Right-click the object to run the backup.

estore Save Substantial List Saveset Utility Evolution	iew MasterLog iew History isplay	Wizard Singl	e field 💢 De e - 🧕 🖾 Un com Re	elete Science Create New
Object ESXbadup	Server	13	Service sekhar-w16-v	Node
gs 10backup	sekhar-w16-	v4 v4	sekhar-w16-v	4
View History	SEKHAR-W1	6-V4	localhost	
Save or Run Restore List Journal List Saveset				
Restore Utility				
Modify > Delete Display				

20. When Save or Run Operation window opens, click Start On-Line to start the backup.

Restore Save Utility or run Utility Eurotions	📀 View History 限 Display	All fields	Autosave - Ids Iodify	Undelete	Create	Recovery
/ Object ESXbadup object1 qs10badup sample_badup	Save or Run (Object(s) Object Nam sample	Operation e badap	Operation	Type Start Aut Pat C	× COn-Line ubmit tosave tern Close	
	Operation Yearly Monthly Weekly Daily Incremental By Recurren	() () () () () () () () () () () () () (Recurrence Daily Start Time for Sub 6/15/2021	omit Toda	ay W	

21. The Object Manager Operation Log window displays the progress of the backup session. Operation status has details of the backup job.

Object View Datab	ase Tools Help			1
Restore Save	View MasterLog 🕺 W View History 📰 Al	/izard Single I fields Autosave	field 🔀 Delete • 🧕 Undele	tte
Utility or run 🗃 List Saveset : 其	Object Manager Operati	on Log		×
/ Object	Service Node			Close
Esybackup	HT Service Node Version	Windows64 5.6-03 (20B) B	uild 560301	Close
object1	Operating System:	Windows64 10.0		View Log
qs 10backup	Node Name:	SEKHAR-W16-V4		As Text
sample_backup	Service Node Input Paran	neters		In Browser
	Object Name:	sample_backup		Save åc
	Operation Type:	D Size (KB):	5144576	Email
	Object Path:	C:\dataset		Linditt
	File Pattern:			
	Backup Node:	localhost 4232		Abort
	Dataset Name:	(sample_backup.D001(DISK_:HDMCIFS	
	Operation Status			
	Success			
	SN chkpoint, [1] Successfi SN waitstrm, Waiting for o SN Processed a total of 4. SN iopcompl, Operation of CN conmexex, Control No	ul checkpoint for stream 1 a lata streams to finish 9 GB, 3 items ompleted on Tue Jun 15 11: de closed connection.	fter C:\dataset 🔺	
	CN cposproc, Notification	postprocessing started. le: C: \Htape\CN\CMD\on_ei	rroremail.bat 🗸	

5. Setting up the QoreStor system replication

NOTE: For the steps in this procedure, assume QS1 is the replication source QoreStor system, and QS2 is the replication target QoreStor system. 'source' is the replication source container, and 'target' is the replication target container.

Creating a CIFS/NFS replication session

- 1 Create a source container on the source QoreStor system.
- 2 Create a target container on the target QoreStor system.
- 3 On the source QoreStor system, go to the **Replications** Tab. Click the **Add replication** button.



4 Select the source Container for Replication and click Next.



5 Select the Encryption type for the Source Container and click Next.



6 Enter the target QoreStor systems related information then click **Retrieve Remote Containers**. Select a target container from the populated list, and click **Next**.

Add replication ×
Target container
🔵 Local
• Remote
Username
admin
_ Password
qspl-6300-47.systest.ocarina.local
Retrieve Containers
select remote container
target
Cancel Prev Next

7 Specify any **Bandwidth Limitations** needed in MBps, and leave 0 for unlimited bandwidth. Click **Next**.



8 Verify the Summary and click **Finish**.

Add replication ×
Source container
Source Local
Container source
Encryption
Algorithm AES 256
Limits
Bandwidth Limit [MBps] Unlimited
Target
Source Remote
Container target
User admin
Password ******
Remote Machine Address qspl-6300-47.systest.ocarina.local
Cancel Prev Finish

9 Check replication is added successfully and confirm the replication details

6. Restoring from the replication target

NOTE: Before restoring from the target QoreStor system, make sure that the replication session state is INSYNC on the QoreStor system GUI Replication menu. Stop or Delete the replication session, and make sure that the target QoreStor system container has the CIFS/NFS connection(s) enabled.

1. Add the target QoreStor system container to the BridgeHead :

i

 1. Click Configuration of Backup Node, which displays Configuration File, Double click to open the Configuration File. Modify the Stage Path to point to **the** target QoreStor container path, then save the changes.

📥 Management Co	nsole - Backup Node
🛛 🗸 General	Report Manager 🔯 Log Viewer
Calete	
Open	IPT_BN - Notepad
General	File Edit Format View Help
Management Co Ortrol Noc Ortrol Noc	; Staging areas have to be defined in strict ascending order. ; For example if one defines staging areas 01, 02, 03, 05, 06 and 07, ; only staging areas 01, 02 and 03 will be taken into account. ; If not defined, Staging_Area_01_Path defaults to the Stage ; sub-folder of the Backup Node. Typically C:\Htape\BN\Stage.
	Staging_Area_01_Path = \\10.230.48.249\target
	<pre>Staging_Area_02_Path = C:\Stage\Stage2\</pre>
Reports Service Noc Service Noc Service Noc Service Noc Service Noc Service Servi	; ; Staging_Area<_nn>_Name ; Specifies a name for the staging area. This setting is optional. ; If you specify a staging area name, you can ask the Backup Node to ; select that particular staging area, rather than leave the choice ; to the Backup Node. The default is no name. ; Staging_Area_01_Name = HDMCIFS Staging_Area_02_Name = Stage2
	; ; Staging_Area<_nn>_Max_Size ; Specifies the maximum size of the staging area, in MB. This setting ; is optional. If you do not specify a maximum, the size of the ; staging area is limited only by the amount of free disk space ; available. The default is no maximum size, i.e. limited only by ; the amount of free disk space available. ; ; Staging_Area_01_Max_Size = 400

3. Go to Backup Node - > Service Manager, restart the Service of Backup Node.

🚕 Management Console - Backup Node		
🚱 🔹 🌜 General 📲 Report Manager 🔯 Log View	er	
Open Celete Diagnostics Guides Release Not	les	
General Actions Documentation		
Management Console Bac	kup Node > Service Manager	
Control Node	Name 🛊	
Object Manager Oueue Manager	Service Manager	"C:\Htape\BN\bin\SrvManag.exe"
Schedule Manager Service Manager Update License Service Node Service Node Sadup Node Configuration Report Manager Log Viewer Log Viewer Sedhar-w 15-v4	Backup Node - Service Manager – X Service About Service Status HT Internet Daemon is running HT Backup Broker is running Install Services Start Stop Pause Continue Action/Status Close	

4. On BridgeHead Management Console, open Object Manager, and the backup object summary is displayed under the Object list. Right-click the object and SelectRestore

List Journal Or run Distance	iew MasterLog iew History isplay	Wizard Single All fields Autosave Group of fields Modify	field •	Delete Cundelete Rename Organise	Clone
Object	Server			Service Node	
ESXbackup	sekhar-c8-qs	3	sekh	ar-w16-v4	
osi0backup	sekhar-w16-	/4	sekh	ar-w16-v4	
camela hadam	SEKHAR-W10	5-V4	local	nost	
View History					
Save or Run					
Restore					
List Journal					
List Saveset					
Restore Utility					
Modify >					
Delete					
Display					

5. Select the Saveset, then click Start On-Line.

Control Node Object Manager							
Object View Database	Tools Help						
Restore Utility Bayes Corrung	/ MasterLog 🛞 / History 📰 lay	Wizard All fields Restore (Object	Single field Autosave 👻	Delete	E P Carelon Ca	one Se covery 🕂 Se ×	lect all lect none ect special elect
/ Object	Server	sample	_backup		~	Start On-Line	kup Node List
ESXbackup	sekhar-c8-qs3	Generati	ion(s)			Submit	,localhost
qs10backup sample_backup	sekhar-w16-v4 SEKHAR-W16-V4	Gen. 1	Start Date Start 06/15/21 11:01:1	End 0AM 11:05:344	Saveset	Details	
						Pattern Close	
		Start Tim 6/15/2 11:31 A	M No	day ow		Trace	
		Restore Se Re	Properties ervice Node doc adkup Node doc estore Target <c:< td=""><td>alhost> alhost> \dataset></td><td>Properties</td><td></td><td></td></c:<>	alhost> alhost> \dataset>	Properties		

6. Verify that the restore job completes successfully.

Control Node Object Mana	ager (SEKHAR-W16-V4	t)				
Object View Databa	ase Tools Helj	p				
Restore	View MasterLog	Wizard 🕞 Sir	ngle field 🗱 Delete	Clone	Selec	t all
estore Save Jtility or run 🗃 List Saveset 👰	Display	Object Manager Opera	tion Log		×	none specia
Functions		Service Node			dese	ct
Object	Server	HT Service Node Versio	on Windows64 5.6-03 (208)	Build 560301	Close	Node
FSYbadara	coldbar_c9_con2	Operating System:	Windows64 10.0		View Log	albort
object1	sekhar-w16-v4	Operating System.	10.0		As Text	anost
ds10backup	sekhar-w16-v4	Node Name:	SEKHAR-W16-V4			
sample backup	SEKHAR-W16-V4	Consider Made Toront Door			In Browser	
		Service Node Input Para	ameters			
		Object Name:	sample_backup		Save As	
		Operation Type:	R Size (KB):			
			Childrent		Email	
		Restore Target:	C: (dataset			-
		File Pattern:				-
		Backup Node:	localhost 4232		Abort	
		Dataset Name:	(sample_backup.D00	1(_DISK_:HDMCIFS		_
		Operation Status				
		Success				
		Chi abayana [1] Data ab	California and a second failer			
		SN struces, [1] Data st SN waitstrm, Waiting for	data streams to finish	^		
		SN Processed a total of	4.9 GB, 3 items			
		SN iopcompl, Operation (CN control N	completed on Tue Jun 15 1 Inde closed connection.	1:37:48 2021.		
		CN cposproc, Notification	n postprocessing started.			
		CN cposproc, Command	file: C: \Htape \CN \CMD \cn_	erroremail.bat		
			E A assends			
		Mutorefresh every:	seconds			

7. Creating RDS container for use with BridgeHead:

Quest QoreSto	r		<u>)-</u>	\bigotimes	¢	admin
III Dashboard		Containers (0)	Ver	sion	Sve	tem Status
Containers		container 3(0)	7.0.	1.409		Healthy
Local Storage						
Performance Tier						
Storage Groups		0				
Cleaner		0				
Cloud Storage		No Containers Available				
Replications		Art Complete				
🖽 System						
General						
Network Interfaces						
Clients						
Active Directory						
License						
Upload						

1. Select the Containers tab, then click Add container.

2 Enter a container Name, select a Storage Group or leave the DefaultGroup option selected, and select Quest Rapid Data Storage(RDS) from the Protocol dropdown menu. Click Next.

	🖂 🐼 🗘 admin
	Containers (0)
Containers	Add Container ×
	Quest Rapid Data Storage (RDS)
	0
	No Containers Available rda-container
	Add Container
	DefaultGroup
	Cancel Prov Nox
Active Directory	

3. Accepts the Defaults and Click NEXT

Quest QoreStor		🗁 🐼 🗘 admin 🕚
III Dashboard	Containers (0)	
Containers		Add Container ×
😫 Local Storage 🛛 🗠		
Performance Tier		
Storage Groups	0	
Cleaner	U	
🗅 Cloud Storage 🛛 🗸		Lisers (1)
Replications	Add Container	
🖬 System 🔷		
General		(
Network Interfaces		
Clients		
Active Directory		Cancel Prev Next
License		
Upload		
Terminal		

4. Accepts the Defaults and Click NEXT

Quest QoreStor		🖂 🐼 🗘 admin
ili Dashboard	Containers (0)	
🖴 Containers	Containers (o)	Add Container ×
E Local Storage		
Performance Tier		LSU Capacity for RDS containers is always
Storage Groups	0	Cananal Prove Nand
Cleaner	0	
🛆 Cloud Storage 🛛 🗸	No Containers Available	
Replications	Add Container	
🖬 System 🗠		
General		
Network Interfaces		
Clients		
Active Directory		
License		
Upload		
Terminal		
5. Verify the container summary and click on Finish to add it

ılı Dashboard	Containers (0)	Add Container X
🖻 Containers	(-)	
😫 Local Storage 🛛 🗠		M. Container Summany
Performance Tier		
Storage Groups		
Cleaner		rda-container
🛆 Cloud Storage 🛛 🗸		Storage Group:
🖨 Replications		Deraulteroup
🖽 System 🔷		Protocol:
General		RDS
Network Interfaces		
Clients		🖾 Connection Summary
Active Directory		Protocol RDS:
License		
Upload		Capacity:
Terminal		Unlimited
Q Diagnostics		Q Users
A Users		
🛱 Events		User:
Management		backup_user
		Cancel Prev Finish

By default, QoreStor has a user with RDA Role named backup_user and password "St0r@ge!". Refer to the *QoreStor User Guide* for information on changing user accounts.

8. Add RDS container to Bridgehead

1. Open the command prompt where BridgeHead is installed and go to the RDA folder.

c:\>cd c:\Htape\BN\cloud\rda

2. Run RDAUTIL.EXE

c:\Htape\BN\cloud\rda>rdautil.exe

3. Create an RDA instance to add the QoreStor RDS container.

c:\Htape\BN\cloud\rda>rdautil.exe	
rdautil> add rda rdatarget1	
RDA instance RDATARGET1 added OK	
The instance has the following	settings
Name:	RDATARGET1
Status:	Uninitialized
Server:	(Blank, must be set)
Port:	0
Username:	backup_user
Password:	****
Container:	(Blank, must be set)
Root directory:	BridgeHead
Write chunk size:	1024 KB
Error limit:	5000
Grace days:	5
Secondary copy:	(Blank)
Tertiary copy:	(Blank)
Restore order:	123
Daily job max concurrent jobs:	8
Daily job progress check:	5 mins
Daily job max replication time:	600 mins
Daily job total run time:	900 mins
Deduplication mode:	Auto
SecureConnect:	
StorageGroup:	DetaultGroup

4. Set QoreStor Server name/IP.

rdautil> set rda rdatarget1 /server	=10.230.48.240
Instance attributes changed OK, new	details are
Name:	RDATARGET1
Status:	Uninitialized
Server:	10.230.48.240
Port:	0
Username:	backup_user
Password:	****
Container:	(Blank, must be set)
Root directory:	BridgeHead
Write chunk size:	1024 KB
Error limit:	5000
Grace days:	5
Secondary copy:	(Blank)
Tertiary copy:	(Blank)
Restore order:	123
Daily job max concurrent jobs:	8
Daily job progress check:	5 mins
Daily job max replication time:	600 mins
Daily job total run time:	900 mins
Deduplication mode:	Auto
SecureConnect:	On
StorageGroup:	DefaultGroup
Logging:	No
Flags:	00000000 (=0 decimal)
Comment:	(Blank)
rdautil>	

Setting Up Quest[®] QoreStor™ with BridgeHead Contents

5. Set QoreStor Storage Group.

rdautil> set rda rdatarget1 /storag	e=DefaultGroup
Instance attributes changed OK, new	details are
Name:	RDATARGET1
Status:	Uninitialized
Server:	10.230.48.240
Port:	0
Username:	backup_user
Password:	****
Container:	(Blank, must be set)
Root directory:	BridgeHead
Write chunk size:	1024 KB
Error limit:	5000
Grace days:	5
Secondary copy:	(Blank)
Tertiary copy:	(Blank)
Restore order:	123
Daily job max concurrent jobs:	8
Daily job progress check:	5 mins
Daily job max replication time:	600 mins
Daily job total run time:	900 mins
Deduplication mode:	Auto
SecureConnect:	On
StorageGroup:	DefaultGroup
Logging:	NO
Flags:	00000000 (=0 decimal)
Comment:	(Blank)
rdautil>	

6. Set QoreStor RDS Container.

rdautil≻ set rda rdatarget1 /contai	ner=rda-container
Instance attributes changed OK, new	details are
Name:	RDATARGET1
Status:	Uninitialized
Server:	10.230.48.240
Port:	0
Username:	backup_user
Password:	*****
Container:	rda-container
Root directory:	BridgeHead
Write chunk size:	1024 KB
Error limit:	5000
Grace days:	5
Secondary copy:	(Blank)
Tertiary copy:	(Blank)
Restore order:	123
Daily job max concurrent jobs:	8
Daily job progress check:	5 mins
Daily job max replication time:	600 mins
Daily job total run time:	900 mins
Deduplication mode:	Auto
SecureConnect:	On
StorageGroup:	DefaultGroup
Logging:	No
Flags:	000000000 (=0 decima
Comment:	(Blank)
rdaut11>	

Setting Up Quest® QoreStor™ with BridgeHead Contents

7. Initialize the RDA instance.

rdautil> init rda rdatarget1 Backup Node software located at C:\Htape\BN
Attempting to connect to server
Connected OK!
Created /BridgeHead/BH1/RDATARGET1/CNTRL Created /BridgeHead/BH1/RDATARGET1/CNTRL/Replication/Copy2/CopyPending Created /BridgeHead/BH1/RDATARGET1/CNTRL/Replication/Copy3/CopyPending Created /BridgeHead/BH1/RDATARGET1/CNTRL/Replication/Copy2/DeletePending Created /BridgeHead/BH1/RDATARGET1/CNTRL/Replication/Copy3/DeletePending Created /BridgeHead/BH1/RDATARGET1/CNTRL/Replication/Copy3/DeletePending
RDATARGET1 initialized and ready for use
To set a Control Node object to use this instance set its media details to the values below
Option: Cloud Type: RDA Instance: RDATARGET1
rdautil>

8. Exit.

rdautil><mark>exit</mark>

9. On Bridge Head Management Console, click Object Manager under Control Node, which displays the Object Manager in the list. Double-click to open the Object Manager on right- hand side pane.

👶 Management Console - Control Node		
🚱 🔨 General 📗 Report Manager 💆 Lo	g Viewer	
Open Delete Diagnostics Guides Relea	se Notes	
General Actions Document	aton	
Control Node	Name 4	
	B Object Manager	"C:\Htape\CN\bin\cn.exe"
Queue Manager		
Schedule Manager		
Update License		
Reports		
Configuration		
Service Manager		
Report Manager Dog Viewer		
sekhar-w16-v4		

10. Select Template objects to contain default settings for particular tasks such as platform or database backups, storage policy applications, or reporting, and click Next.

Control Node Object	Manager					
Object View Da	atabase Tools	Help				
Restore Utility Restore Utility Restore Save or run List Saveset Functions	Siew MasterLog	Wizard All fields Group of fields Mod	Single field Autosave 👻	Delete Undelete Rename Organise	Create	Clone Recovery v
/ Object ESXbackup object1 gs10backup	Create Object Create New Object from a template An object describe describe backups, template objects of Templat tasks si applicat () Existing databa	ct e or an existing object es what to run and wh , reports, storage polic or existing objects. te objects contain defe uch as platform or data tion or reporting. g objects are those alre se.	ere and when to ru y etc. New objects ault settings for par abase backups, stor eady defined in the	n it. Objects can can be based on ticular rage policy object		
		<	Back Next	> Canc	el	

11. SelectWIN in the template list then click Next.



12. Enter the Service Node related info with the valid file path for the backup data source, click on Credential manager to set the password and then click Next

ᆽ 🗧 Control Node Object I	Manager			
Object View Da	atabase Tools	Help		
Restore Restore Utility Restore Save or run	Stew MasterLog 🕢 View History	Wizard Single field	Delete	Clone
Functions		Modify	Organise	New
/ Object	Create Object			×
ESXbackup object1 qs10backup	Service Node			
	A Service Node operation initiat to a Backup Noo	is a computer whose data is saved or rest ed a Control Node. During a save, data is de.	ored by an collected and sent	
	Computer:	localhost		~
	Credential:	administrator		~
		Cred	ential Manager	
	Path defines da	ta to be saved or restored		
	Path:	C:\dataset		
		< Back Nex	t > Canc	el

13. Enter Backup Node related info

Control Node Object	Manager					
Object View Da	atabase Tools	Help				
Restore Restore Utility Restore Save or run Functions	Siew MasterLog	Wizard All fields Group of fields Modi	Single field Autosave ▼	Delete	Clone	rery
/ Object ESXbackup object1 qs10backup	Create Object Backup Node List				×	
	Backup Nodes sto Save operations t the same node for Ist Computer an localhost administrator Additional B	re data on disk or tape that fail are automatica r simple automatic retry nd Credential	Back	re than one node, kt node. Repeat d Credential Manager Cance		

14. Accept the defaults and click NEXT.

Control Node Object N	Manager					
Object View Da	tabase Tools	Help				
Restore Children Constraints Restore Utility Constraints Constrai	Solution View MasterLog View History Display	Wizard All fields All fields All fields Modify	Single field Autosave →	Delete Undelete Rename Organise	Create	Clone Recovery
/ Object ESXbackup object1 qs10backup	Create Object Mailing the Job Lo	og			×	
	Mail log v In er Alwa Neve	when job ends rror rror or warning ays er < B	ack Next :	Cance		

15. Click on schedule manager to create a schedule for the RDS backup.

Control Node Object Manage	r								
Object View Database	Tools Help								
Restore Vility Vility Vility Save or run Functions Vince Vility Vilit	w MasterLog Wizard w History All fields play Group of fields	Single field Autosave → Ids odify	Constant Con	Create	New	one covery	Sele Sele Sele Sele	ect all ect none ect special elect	
/ Object ESXbackup sample_backup	Server sekhar-c8-qs3 SEKHAR-W16-V4	Se loc S	ate Object cheduling Select a s	uitable sch	edule				×
		Sd	hedule: Calendar June	 ~		202	~ 1 ‡	Schedule Manager Refresh schedules	 list
			SUN MON 6 7	TUE VM 1 2 8 9 15 16	ED THU 3 10	J FRI 4 11	5 12		
			20 21 27 28	22 23 29 30	24	25	26		
							< Back	Next > Ca	incel

16. It will open schedule manager windows and SelectTemplate schedules to contain suitable defaults for various job types. Click OK.

Control Node Schedule Manager				
Schedule Tools Help				
Image: Create Ima				
/ Schedule Daily operation Daily_Schedule	Media Constantia Const	Daily 🙀 Weekly	Monthly	Ŷ
q-rest-schedule sch/730 sch/vmware test-backup test-full test12 WIN CN OM		Create Schedule A schedule describes the dates of media to be used (if any). New s template schedules or existing so	on which jobs are to be run and chedules can be based on chedules. tain suitable defaults for	×
		Existing schedules are the schedule database.	nose already defined in the	
			OK Cancel	

17. Select template schedule MonthlyFullWeeklyfullDailyIncr and click **OK**.

Schedule Tools Help					
Image: Compare method if y Image: Compare method if y Modify Organise Inspect Schedule Databas	se				
Schedule Daily operation	Media	Daily	Weekly	Monthly	
ga-test-schedule sch730		Template Scl	hedules		:
schvmware test-backup test-full test12		Arch	iiving sup		
WIN_CN_OM	2	e - Othe	MontayFull VeekyFull L HourlyFull DWMY Healthcare DWMYI Healthcare Data er overy	base	
		Monthly Full o	n 1st, Weekly Full on Sa	at, Daily Incr every day exce	ept Sat

18. Delete monthly, Incremental schedules and keep Weekly full to modify it.

Schedule Tools Help				
Image: Second	base	Schedule Manager		
Schedule alfy operation alfy_Schedule	Media	Schedule Name and Comment Name: Comment:		
nne -test-schedule h730 hvmware et backup	111	Recurrences Recurrence Name	Autosave Frequency	y Scope New
st-Gatup st-full st12 IN_CN_OM	* * * *	Monthly Full Weekly Full Incremental	Yes Monthly Yes Weekly Yes Weekly	Full Clone Full Increme Modif
		<		> Delet
		Calendar June VED	2021 🗘	Media Management
		$\begin{bmatrix} 6 & {}^{1} & 7 & {}^{1} & 8 & {}^{1} & 9 & {}^{1} \\ 13 & {}^{1} & 14 & {}^{1} & 15 & {}^{1} & 16 & {}^{1} \\ 20 & {}^{1} & 21 & {}^{1} & 22 & {}^{1} & 23 & {}^{1} \\ 27 & {}^{1} & 28 & {}^{1} & 29 & {}^{1} & 30 & {}^{1} \end{bmatrix}$	10 ¹ 11 ¹ 12 ¹⁰ 17 ¹ 18 ¹ 19 ¹⁰ 24 ¹ 25 ¹ 26 ¹⁰	Exclude Dates

19. Enter the schedule name, select the weekly schedule, and then click on modify.

Control Node Schedule Manager		
Schedule Tools Help		
Import Import Import Import		Schedule Manager X
New Modify Organise Inspect Schedule Datab	ase	
/ Schedule Daily operation Daily_Schedule	Media	Schedule Name and Comment Name: rda-schedule Comment:
■ None ■ qa-test-schedule ■ sch730	1	Recurrences
schvmware test-backup test-full	<i>·</i> <i>·</i>	Recurrence Name Autosave Frequency Scope New Im Weekly Full Yes Weekly Full Clone
■ test12 ■ WIN_CN_OM	<i>·</i>	↑ Modify ↓ Rename
		< Delete
		Calendar Media Management
		June 2021 ONone SUN MON TUE WED THU FRI SAT Media Manager
		1 2 3 4 5 4 6 7 8 9 10 11 12 4
		13 14 15 16 17 18 19 H 20 21 22 23 24 25 26 H 27 28 29 30 Counters
		OK Cancel

20. Select the **cloud** in the media management option under the general page.

Schedule Tools Help				
te Modify	t	Schedule Manager		
w Modify Organise Inspect Schedule Data	abase		Recurrence	
Schedule	Media	Name: rda	General Run Dates Media Properties	
illy operation illy_Schedule	1	Comment:	Recurrence name: Weekly Full	
ne	,		Score	
1730	1	Recurrences		
nvmware	1	Recurrence Name	Full O Incremental	
st-full	1	Weekly Full	Frequency	
st12 IN_CN_OM	1		Daily Run daily at the specified times.	
			Weekly Run on the specified days of a week.	
			Monthly Run on the specified days of a month.	
		Calendar	Yearly Run on the specified days of the year.	
		June	Media Management	
		SUN MON	Media Management option:	
		6 7 :	ciou	
		13 14	Autosave enabled	_
		20 21	Advanced.	
		27 28		

21. Select RDA as type, Enter Instance as the Name of the instance created using RDAUTIL.exe

under Media Properties Page then click OK

Control Node Schedule Manager		
Schedule Tools Help		
Image: Create Modify Image: Compare Provided in the provided in	e	Schedule Manager X Recurrence X
/ Schedule	Media	Name: rda General Run Dates Media Properties
Daily Schedule None	1	Comment: Cloud Properties Type: rda
a-test-schedule	1	Recurrences Instance: rdatarget1
Eschvmware test-backup test-full	· · · · · · · · · · · · · · · · · · ·	Recurrence Name Plax Weekly Savesets 4
test12 WIN_CN_OM	1	
		<
		Calendar June
		SLIN MON 6 7 13 14 20 21 27 28
		OK Cancel

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22. Click \mathbf{OK} to save it.

Control Node Schedule Manager										
Schedule Tools Help										
Import Import										
🛃 Used by		Schedule	Manag	er						×
New Modify Organise Inspect Schedule Databas	e	Schedule	Name a	nd Com	ment					
/ Schedule	Media	Name:	n	la-sche	dule					
Daily operation										
Daily_Schedule	~	Commen	t:							
a-test-schedule	1	Deermon								
sch730	1	Recurren	ices							
schvmware	-	Recurre	ence Nar	ne		Au	utosave	Frequency	Scope	New
test-backup	4	Wee	ekly Full			Ye	s	Weekly	Full	Clone
test12	~									1
WIN_CN_OM	1									Modify
										Rename
		<							>	Delete
		Calendar			_	_			Media N	Management
		Jun	e	~		20	021 ≑		ON	lone
		SU	IN MOI	I TUE	WED 1	THU FR	A SAT		M	ledia Manager
				1	2 3	4	5 4			
		6	7	8	9 1	0 11	12	1		
		13	14	15	16 1	7 18	19 4		E	Exclude Dates
		20	21	22	23 2	4 25	26			
		27	28	29	30					Counters
									ОК	Cancel

23. Click on the refresh schedule list to select the newly created schedule.

tore Save lity Save Functions	/iew MasterLog /iew History Display	Wizard All fields Group of fields	Single field Autosave 🔹 Ids Iodify	1	De De Un E Rei Orga	lete delete name mise	e Cri	eate	Scio	ne covery		Select all Select none Select specia Select	al
Object 5Xbackup mple_backup	Server sekhar-c8-qs SEKHAR-W16	3 -V4	sei loc	Cr	eate O Sched Se	bject uling lect a	suitable	sched	dule				
				S	Calence June	e: lar	rda-	schedu	ile	202	1 🗘	✓ Sd	hedule Manager fresh schedules list
					SUN 6	MO	1 8	2 9	<mark>тни</mark> 3 10	FRI 4 11	SAT 5		
					13 20 27	14 21 28	15 22 29	16 23 30	17 24	18 25	19 ¹ 26 ¹	4	
											< Back	< Next	t > Canc

24. Accept default settings, click Next.

Control Node Object Manag	er			
Object View Database	Tools	Help		
Restore Utility Save or run Utility Functions	ew MasterLog ew History isplay	Wizard Singl All fields Autosave Group of fields Modify	e field	eld
/ Object ESXbackup sample_backup	Server sekhar-c8-qs SEKHAR-W1	53 6-V4	sel loc	Create Object ×
				Tick the box below to override the start times in the schedule. Incremental runs are not normally used for non-backup objects. Override schedule start times Full: 09:00 PM Incremental: 07:00 PM
				< Back Next > Cancel

25. Accept defaults, click Next.

Object View Databa	se Tools Help		
List Journal Save Ity or run Dist Journal	View MasterLog View History Display	■ Single field utosave * ★ Delete ↓ Delete ↓ Clone ↓ Select all □ Undelete ↓ Rename ↓ Recovery ↓ Select special Organise New Select	
Object SXbadup mple_badup	Server sekhar-c8-qs3 SEKHAR-W16-V4	Create Object se loc Queue Names	
		Once scheduled, jobs are held in queues. Jobs run as soon as the arrives and sufficient resources are available. Different queues cato group jobs for common resources and for easy monitoring. Full: Full: Incremental: Restore:	r start time n be used

26. Enter the object name then click Finish.

즞 🗧 Control Node Object Manage	21	
Object View Database	Tools Help	
Restore Utility Restore Save Utility Restore Save List Journal Di List Saveset Restore Save Di List Saveset	ew MasterLog 😵 Wizard 📰 ew History 🚔 All fields Aut splay 🖶 Group of fields Modify	■ Single field Select utosave → Image: Select all Image: Select all Image: Select all
/ Object ESXbackup sample_backup	Server sekhar-c8-qs3 SEKHAR-W16-V4	Sel Object Name(s)
		Each object must be given a unique name within the object database. Consider OS naming conventions and restrictions. Names associated with a node name and path are recommended. Press Create to create without finishing.
		Name of object to create test_rdabackup Create
		< Back Finish Cancel

27. The backup object summary is displayed on the Object list. Right-click the object to run the backup.

Object View Database Tools Help Image: Save Save Save Save Save Save Save Save	Control Node Object Manager	r						
Wiew MasterLog Wizard Single field Delete Cone Save Uist Journal View History Forup of fields Undelete Rename Recover View History Save Display Modify Organise New Voiew History Server Service Node sekhar-c8-qs3 sekhar-w16-v4 localnost Save or Run Server Server Server sekhar-c8-qs3 sekhar-w16-v4 Save or Run Server Server sekhar-c8-qs3 sekhar-w16-v4 localnost Save or Run Server Server sekhar-c8-qs3 sekhar-w16-v4 localnost Save or Run Server Server sekhar-c8-qs3 sekhar-w16-v4 localnost Modify Server Server sekhar-w16-v4 localnost sekhar-w16-v4 Modify Server Server sekhar-w16-v4 localnost sekhar-w16-v4 Save or Run Server Server Server sekhar-w16-v4 localnost Delete Display Server Server Server Server <t< td=""><td>Object View Database</td><td>Tools</td><td>Help</td><td></td><td></td><td></td><td></td><td></td></t<>	Object View Database	Tools	Help					
/ Object Server Service Node ESXbackup sekhar-c8-qs3 sekhar-w16-v4 sample_backup SEKHAR-W16-V4 localhost View History SEX or Run SEX or Run Save or Run Saveset Sectore Utility Modify > Sectore Utility Delete Display Sectore Utility	Restore Save Utility or run List Saveset Utility Functions	w MasterLog w History play	Wizard All fields Group of fiel Mo	Autosave 👻 ds	ield	Delete Delete Undelete Rename Organise	Clon	e very
	/ Object ESXbackup sample_backup test_rdabackun View History Save or Run Restore List Journal List Saveset Restore Utility Modify Delete Display	Server sekhar-c8-qs SEKHAR-W1(SEKHAR-W1(53 6-V4 6-V4		Sekha localh	Service Node r-w16-v4 ost ost	New	

28. When Save or Run Operation window opens, click Start On-Line to start the backup.

Control Node Object Manager							
Object View Database	Tools	Help					
Restore Utility Save Utility Functions	/ MasterLog / History lay	Wizard Sing All fields Autosau Group of fields Modify	gle field ve 👻	Delete	Clone	Select all Select none Select special Select	
/ Object ESXbackup sample_backup test_rdabackup	Server sekhar-c8-qs: SEKHAR-W16 SEKHAR-W16	3 5-V4 5-V4	sekha localh localh	Save or Run Operat Object(s) Object Name test_rdabackup	ion	Dperation Type	X Start On-Line Submit Autosave Pattern Close Trace
				Operation Yearly Monthly Weekly Daily Incremental By Recurrence		currence Veekly Full art Time for Submit 5/16/2021	Today Now

29. The Object Manager Operation Log window displays the progress of the backup session.

Operation status has details of the backup job.

Control Node Object Manager				
Object View Database	Tools Help			
Restore View	w MasterLog 🙀 Wizard 🗊 S w History 🚔 All fields Auto	ngle field 🗱 Delete ave 👻 🧕 Undelete	Clone Select all	
Utility or run 🗃 List Saveset 😺 Disp	play 📄 Group of fields	Object Manager Opera	tion Log	×
Functions	Modify	Service Node		
/ Object	Server	HT Service Node Versio	n Windows64 5.6-03 (20B) Build 560301	Close
ESXbackup	sekhar-c8-qs3	Operating System:	Windows64 10.0	View Log
test_rdabackup	SEKHAR-W16-V4	Node Name:	SEKHAR-W16-V4	As Text
				In Browser
		Service Node Input Para	meters	
		Object Name:	test_rdabackup	Save As
		Operation Type:	W Size (KB): 5144576	Email
		Object Path:	C:\dataset\	
		File Pattern:		
		Backup Node:	localhost 4232	Abort
		Dataset Name:	(test_rdabackup.W001(_CLOUD_:rda:rd	
		Operation Status		
		Success		
		SN chkpoint, [1] Success SN waitstrm, Waiting for SN Processed a total of 4 SN iopcompl, Operation o CN connexex, Control N CN cposproc, Notification CN cposproc, Command	ful checkpoint for stream 1 after C:\dataset data streams to finish 4.9 GB, 3 items completed on Wed Jun 16 11:37:24 2021. ode closed connection. n postprocessing started. file: C:\Htape\CNU\cmD\cn_erroremail.bat	

9. Setting up Cloud Tier

Creating a policy-driven Cloud Tier

Cloud Tier is a feature that allows a QoreStor system to tier deduplicated blocks of files to a cloud provider via S3 protocol. There are several cloud and on-prem solution providers supported including Azure, AWS, Wasabi, IBM, Google, and many other S3-compatible solutions. Once added one or more containers can be added to a policy. How that policy is configured can determine how long the data is available on-prem in QoreStor, how long it's available both on-prem and in the cloud simultaneously, and finally at what point is it only available in the cloud.

1. Open the QoreStor UI, expand the Cloud Storage section, and select the Cloud Tier page. Click the Configure button.



2. For Azure enter your Azure Container name, this will be created automatically in the cloud. Enter your Connection string from the Azure portal and your passphrase. This passphrase is user-defined and used to securely encrypt all files written to the cloud provider. Finally, click Configure.

Cloud Tier	Configure Cloud Tier	×	
	Azure Blob	~	
	Veed Help?		
	Cloud Tier Encryption		
]	
	Confirm Passphrase		
	···		
		Configure	
	Cloud Tier	Cloud Tier Configure Cloud Tier Cloud Provider Azure Blob Need Help? Azure Container cloud-container Connection String Cloud Tier Encryption Passphrase Confirm Passphrase Close	Cloud Tier Configure Cloud Tier × Cloud Provider Azure Blob Pace Help? Azure Container Cloud-container Cloud-container Cloud-container Cloud Tier Encryption Passphrase ••• Configure Cloue Configure Cloue Configure

3. Once added this is how the cloud tier page should display.

 Dashboard Containers 	Cloud Tier			Version System Statu: 7.0.1.409
E Local Storage				
Cloud Storage	Schedule			Delete
Cloud Tier				
Archive Tier	Connector Details			
B Replications				
🖬 System 🗸 🗸		AZURE	cloud-container	static
Q Diagnostics				
A Users				
🛱 Events	Savings		Capacity	
⊠ Management	3.07 GB Current Bytes 3.1 GB	3.1 GB 0% 0.0% Total Savings		Used Licensed Cloud Capacity Licensed Capacity
	DEDUPE	COMPRESSION		

4. We need to add a cloud tiering policy to a specific container. Do this by navigating to the **Containers** page, selecting the **ellipsis** in the top right corner of the specific container, and clicking **Enabled Cloud Tiering Policy**.

Quest QoreStor			
ul Dashboard	Containers(1)		
Local Storage Cloud Storage Cloud Tier	Add Container		
Archive Tier Replications System V Q Diagnostics	Marker Connection		 E Details
♀ Users 箇 Events ⊡ Management	None VRDS Storage Group DefaultGroup	Νο	Enable Cloud Tiering Policy Enable Archive Tiering Policy
			 Ø User Access Control Delete

5. In the next window, we need to define the policy. **Idle time before cloud migration** specifies the number of hours/days datablocks must be kept idle before being sent to the cloud. **On-Prem Retention age** specifies the number of hours/days files will be kept locally after they are sent to the cloud. Finally, click **Enable**.

Enable Cloud Tier	ing Policy	×
Cloud Policy		
Idle time before cloud n		days v
On-Prem Retention Age		days V
Advanced Options		
	Cancel	Enable

6. The container should now show with the cloud tiering policy enabled.

Quest QoreStor					
ılı Dashboard	Containers	(1)			
🖾 Containers	containers	()			
😫 Local Storage 🛛 🗸 🗸	Add Containor				
☐ Cloud Storage	Add Container				
Cloud Tier					
Archive Tier					
B Replications		rda-container /containers/rda-container 🗐			
🖬 System 🗸 🗸					
Q Diagnostics	Marker None	Connection		Replication	
名 Users	, vone				
🛱 Events			Cloud Tiering Policy		
Management	DefaultG	roup	✓ Enabled		

7. Verify the stats of cloud-uploaded bytes on the source QS machine after data gets replicated to the cloud from UI.

\leftrightarrow \rightarrow C \land Not secure	10.230.48.240:	5233/#/cloudstorage/cloud-tier				\$	r R
	Summary			Statistics			
				General			
		DefaultCloudTier	Enabled	Cleaner Status Done			
		Compression Mode Fast	,' Passphrase Set True	Files			
						Current Bytes 4.91 GiB	
			static	Decrypted Bytes	Post Dedupe Bytes	Post Compression Bytes	
		Key Rotation Interval 0 0 0 0 0	Created On Jun 18, 2021, 12:33:00 PM	Post Encryption Bytes 4,91 GiB	4.91 010	4.91 010	
		Quota [GIB]		claud			
				Bytes Total 4.97 GIB	Uploaded Bytes 4.97 GIB	Dowloaded Bytes 0 B	
				Total Files 1260	Files In Progress O	Bytes Processed O B	

1. Verify the stats of cloud-uploaded bytes on the source QS machine after data gets replicated to the cloud from CLI.

[root[source-qs ~]# statsclou	d	tier
Storage_group ID	:	2
Total Inodes	:	11
Read Throughput		0.00 MiB/s
Write Throughput		0.00 MiB/s
Current Files	:	2
Current Direct Files		0
Current Bytes		5269335431
Post Dedupe Bytes	:	5269328759
Post Compression Bytes		5269328759
Post Encryption Bytes	:	5271108000
Post Encryption Bytes in GiB	:	4.9 GiB
Bytes decrypted		0
Cleaner Status	:	Done
Compression Status		Done
Encryption Status		Pending
Dedupe Savings	:	0.00 %
Compression Savings	:	0.00 %
Total Savings		0.00 %
Cloud read Throughput	:	0.00 MiB/s
Cloud write Throughput	:	0.00 MiB/s
Files in progress to cloud	:	0
Fotal cloud bytes uploaded	:	5335719584
Total cloud bytes downloaded	:	0
Total cloud cache bytes read	:	0
Total cloud read bytes optimized	:	0
Total cloud files	:	1260
Total cloud overwritten files		0
Total cloud bytes		5335719584
Total cloud bytes processed	:	0
Total cloud ds bytes reclaimed		0
Total cloud metadata bytes		64611584
Total space (rehydrated)	:	5333947015
[root@source-qs ~]#		

8. Cloud Reader

Once data gets replicated to the cloud, QoreStor allows it to read the data from the cloud to multiple target QS machines. Note: During this time, all the target machines will be in cloud read-only mode. No writes are allowed from this reader QS to the cloud bucket whereas source QS continues to upload data to the same cloud bucket

1.Log on to the QoreStor using SSH.

- a. Log in with username qsadmin.
- b. Run the following command on the target QoreStor machine to recover all the containers data:

qsadmin@target-qs > maintenance --disaster_recovery --cloud_string
"DefaultEndpointsProtocol=https;AccountName=qorestortest;AccountKey=8Tt7/ysHSGSBSW7FG1Vr2+27xgccskbUWf9
GLIGEPeMHYfmVxI+fTg1XYpA==;EndpointSuffix=core.windows.net" --container_name cloud_container1 -cloud_provider_type AZURE --passphrase qqq --logfile /tmp/t1 --quick_ro_recovery yes
Informing watcher to enter disaster recovery mode
Filesystem disaster recovery started successfully.
Please see the /var/log/oca/qsdr.log and the logfile given in the command.
qsadmin@target-qs >

--cloud_string<azure connection string>--container_name<azure Cloud_container_name/bucketName>--cloud_provider_typeAZURE--passphrase<Passphrase of cloud_tier> [set by the user while configuring cloudTier on source QSmachine--logfile</tmp/out6>--quick_ro_recovery< yes > will set target qorestor in read-only mode

2. Log in from UI on the target machine.

÷	\rightarrow	C	A Not secure	10.230.48.249:5233/#/login			
						OoreStor™	
						Q0103101	_
						Username admin	
						Password	
						Sign In	
						© 2021 Quest Software Inc. ALL RIGHTS RESERVED.	

3. After logged-in, make sure the RDS container gets recovered.

\leftrightarrow \rightarrow C \blacktriangle Not second	are 10.230.48.249:5233/#/containers		
Quest QoreStor			
	Containers(1)		Vers
😂 Containers			7.0.1
E Local Storage ~ Performance Tier Storage Groups	Add Container		
	/containers/rda-container		
	Marker Connection None	Replication No	
Replications			
∃ System ~	Storage Group	Cloud Tiering Policy	
	Delauroroup	V Enabled	
Events			
Management			

4. From CLI, log in as qsadmin and verify the system state.

P	a	sadmin@target-gs:~
100	ч	suarrie turget ds.

qsadmin@target-qs > systemsh	how
System Name	: target-qs
Current Time	: Tue Jun 22 08:09:04 2021 EDT
System ID	: 42346F27C47C4361BB1EFDCA069B5B46
Product Name	: QoreStor
Version	
Suild	: 409
Repository location	: /ocaroot/ocaroot
letadata location	: /ocaroot/qs metadata
Dictionary type	: Standard
System State	: Operational Mode
Reason	: Filesystem is fully operational for I/O (Cloud access is read only
Configuration Server	: RUNNING Jun 21 14:26:49
ilesystem Server	: RUNNING Jun 21 14:26:49
Vindows Access Server	: RUNNING Jun 21 14:26:48
Vindows Active Directory Client	t : RUNNING Jun 21 14:26:09
Health Monitor	: RUNNING Jun 21 14:20:56
ilesystem Checker	: STOPPED
SecureConnect Server	: RUNNING Jun 21 14:26:48
JI	: RUNNING Jun 22 01:55:51
Policy Manager Daemon	: RUNNING Jun 21 14:28:13
isaster Recovery Daemon	· STOPPED

sadmin@target-qs >

5. Restore Data from the target QoreStor machine using BridgeHead :

Setting Up Quest® QoreStor™ with BridgeHead Contents

a. Run rdautil.exe on a BridgeHead Machine and Change the target QoreStor machine server address to restore from it

Note: Containers and storage groups are created with the same name. So, no need to change these details

c:\Htape\BN\cloud\rda>rdautil.exe
rdautil> set rda rdatarget1 /server=10.230.48.249
WARNING: You have requested access property change(s). Your saved data may become inaccessible if these changes are incorrect.
* Do you want to proceed? (Yes/No) : Yes
Proceeding
Instance attributes changed OK, new details are
Name: RDATARGET1
Status: Initialized
Server: 10.230.48.249
Port: 0
Username: backup_user
Password: ******
Container: rda-container
Root directory: BridgeHead
Write chunk size: 1024 KB
Error limit: 5000
Grace days: 5
Secondary copy: (Blank)
Tertiary copy: (Blank)
Restore order: 123
Daily job max concurrent jobs: 8
Daily job progress check: 5 mins
Daily job max replication time: 600 mins
Daily job total run time: 900 mins
Deduplication mode: Auto
SecureConnect: On
LOGGING: NO
Comment: (Blank)
Updated marker object in RDA with new details.
rdautil>
b. Open BridgeHead Management console, Now backup object summary is displayed on the Object list. Right-click the object to run the backup.

🚱 🔨 General 📊 Report Manager 🔯 Log Viewer				
Celete	Control Node Object Manage Object	f Teatr Male		
Open Degrostics Guides Release Notes General Actions Documentation Image: Maragement Console Control Node > Obj Control Node > Obj Image: Control Node Control Node > Obj Control Node > Obj	CUpert View Database Cupert View Database Cupert View Database Cupert View Database Cupert View Database Sector Save Utility or run ⊖ Uist Saveset Dip Functions	ioois neip w MasterLog 😿 Wizard 💽 Single w History 🖬 All fields Autosave play 🔤 Group of fields Modify	e field Conception Conception Conceptication Conception Conception Conception Conception Concepti	Select all Select none Select special Select
Outrie Manager Outrie M	/ Object ESXbadup sample_badup View History Save or Run	Server sekhar-c8-qs3 SEKHAR-W16-V4 SEKHAR-W16-V4	Service Node sekhar-w16-v4 localhost localhost	Badup Node List localhost localhost localhost localhost
Backup Node Configuration Sector Manager Configuration Sector Manager Sec	Restore List Journal List Saveset Restore Utility			
	Modify > Delete Display			

c. When the Restore window opens, click Start On-Line to start the restore.

ᆽ 🗧 Control Node Object Manager	(
Object View Database	Tools He	p	
Restore Save Utility or run Utility Functions	w MasterLog	Wizard ∰ Single field All fields Autosave * Group of fields Modifier Coopies	Clone ESSelect all Select none Select special Select Select
/ Object ESXbadup sample_badup test_r/abadup	Server sekhar-c8-qs3 SBKHAR-W16-V SERHAR-W16-V	Restore Operation Object test_rdabadkup Generation(s) Gen. Start Date Start Frid. Savenet I D6/16/21 11:36:33AM 11:37:24AM W001	X Backup Node List Start On-Line vost, Jocalhost Nost vost Details Pattern Close
		Start Time for Submit 6/18/2021 Today 10:59 AM Now Restore Properties Service Node docalnost> <a a="" href="https://www.acalanstation.com" www.acalanstation.com"="" www.acalanstation.com<=""> Restore Target <a a="" href="https://www.acalanstation.com" www.acalanstation.com"="" www.acalanstation.com<=""> Properties	

d. The Object Manager Operation Log window displays the progress of the restore session. Operation status has details of the restore job.

Object View Database	Tools	Help					
Restore Save Original List Saveset	ew MasterLog ew History splay	Wizard All fields A Group of fields	Single field utosave 🝷	Delete	Create	Clone Recovery	Select all Select none
Functions		Object Manager Oper	ation Log				× elect
/ Object ESXbadkup	Server	Service Node HT Service Node Vers	ion Windows64 5	5.6-03 (20B) Build	560301	Close	ckup Node List t,localhost
test_rdabackup	SEKHAR-W1	Operating System:	Windows	64 10.0		View Log As Text	t
		Service Node Input Pa	rameters	VV 10-V4		In Browse	er
		Object Name:	test_rdab	ackup		Save As	
		Operation Type:	R C:\datase	Size (KB):		Email	•
		File Pattern:					_
		Backup Node:	localhost	4232		Abort	
		Dataset Name:	(test_rda	backup.W001(_C	OUD_:rda:rd		
		Operation Status]		
		SN strsuces, [1] Data s SN waitstrm, Waiting fr SN Processed a total of SN iopcompl, Operation CN csnmexex, Control CN cposproc, Notificati CN cposproc, Comman	tream finished si or data streams t f 4.9 GB, 3 items i completed on F Node closed con on postprocessin d file: C: \Hape\	uccessfully to finish ri Jun 18 11:06:30 nection. Ig started. CN(CMD)cn_error	5 2021.		
		Auto-refresh every:	5 🜲	seconds			

e. Verify downloaded stats from the cloud on target qorestor.



f. Verify same from CLI

[root@test-qs ~] # statscloud_	ti	ier
Storage_group ID		2
Total Inodes		10
Read Throughput		0.00 MiB/s
Write Throughput		0.00 MiB/s
Current Files		1
Current Direct Files		
Current Bytes		5269335099
Post Dedupe Bytes		5269328427
Post Compression Bytes		5269328427
Post Encryption Bytes		5271107664
Post Encryption Bytes in GiB		4.9 GiB
Bytes decrypted		5269335131
Cleaner Status		Done
Compression Status		Done
Encryption Status		Pending
Dedupe Savings		0.00 %
Compression Savings		0.00 %
Total Savings		0.00 %
Cloud read Throughput		0.00 MiB/s
Cloud write Throughput		0.00 MiB/s
Files in progress to cloud	:	0
Total cloud bytes uploaded		
Total cloud bytes downloaded	:	5292088464
Total cloud cache bytes read		271822412989
Total cloud read bytes optimized		0
Total cloud files		1258
Total cloud overwritten files		
Total cloud bytes		5335604880
Total cloud bytes processed		332
Total cloud ds bytes reclaimed		332
Total cloud metadata bytes		64497216
Total space (rehydrated)		5333832315
[root@test-qs ~]#		

9. Performance Tier

A Performance Tier allows you to define a set of faster disks as a Storage Group and created a container within that group. This Performance container will always read/write to these faster disks which will allow operations like restores and standard (non-fast clone) synthetic backups to occur quickly. This tier does not stage data off to the standard disks, this is because a restore of synthetic operation reading from the standard disks would still hamper the operation. All data written to the Performance Tier stays within the performance Tier. Because of this, it is recommended to write only specific jobs, which are required to be highly available and are sized to fit within the performance tier size. Please read the QoreStor User Guide for more details about the Performance Tier.

Warning: Please note that once a Performance Tier is added to a system it cannot be easily removed and attempting to do so will most likely result in the destruction of data. Please disable any backup or data copy jobs to the QoreStor system and contact support before attempting removal to find out if this is possible.

Setting up Performance Tier with QoreStor

In this section, we are not going to cover adding a device, creating a partition, creating an XFS filesystem, or defining a mount point in detail. Please reference the QoreStor Installer Guide for this information.

- 1 We first need to cable and add the disks to the OS level. Once seen as a device in the OS an aligned partition will need to be created, an XFS file system created, and a mount point defined in fstab that includes mount option requirements defined in the QoreStor Installer guide.
- 2. Once a file system path to the high-performance storage is added the next step is to add that path as a performance tier in QoreStor. In the QoreStor UI expand Local Storage and select the **Performance Tier** tab. Click **Add Performance Tier**.

Setting Up Quest® QoreStor™ with BridgeHead Contents

	Quest QoreSt	tor			<u>>-</u>	\$	Ţ	admin $$
di	Dashboard		Performance Tier		Versi	ion	Svs	em Status
8	Containers		r enormance ner		7.0.1	.409	✓ I	lealthy
8	Local Storage							
	Performance Tier							
	Storage Groups			No Performance Tier added				
	Cleaner							
0	Cloud Storage			Add Performance field				
	Cloud Tier							
	Archive Tier							
⊟	Replications							
⊟	System							
Q	Diagnostics							
8	Users							
Ē	Events							
J	Management							

1 Enter the performance tier mount path and click the **Test** button.

Add I	Performance Tier		×
	Path MPERF	Test	
		Add	

2 Click the **Confirm** button.

Warning	×
Performance tier path test can take a few minutes. Do you want to continue?	
Cancel	

3 If the path gets the expected performance click Add.



4 Click **Confirm** to finish adding the performance Tier, QoreStor services will be restarted.



- 5 Once the performance Tier is added you will be logged out. Once logged back in the Performance Tier tab will now list a dashboard for the performance Tier.
- 6 Navigate to the Containers tab and click Add Container.



8. In the **Storage Group** dropdown select **PerformanceTier**. Input the container **Name** and set the **Protocol** to **Quest Rapid Data Storage (RDS)**. Click **Next**.



Setting Up Quest® QoreStor™ with BridgeHead Contents

 Follow the rest of the steps listed in the Creating an RDS container for BridgeHead and Adding an RDS container to BridgeHead sections of this guide to finish configuring your Performance Tier container.

10. Setting up the QoreStor system cleaner

Performing scheduled disk space reclamation operations are needed as a method for recovering disk space from system containers in which files were deleted as a result of deduplication. Ideally, the QoreStor cleaner should complete a full cycle at least once a week. This will be accomplished in most cases by the predefined QoreStor cleaner schedule. The cleaner also runs during idle time.

To change the predefined cleaner schedule times, perform the following steps:

- 1. Open the QoreStor administrative console.
- 2. Expand Local Storage in the top navigation area.
- 3. Select Cleaner.
- 4. Click Edit Schedule.

Quest QoreStor					🖂 🐼 🗘 admin -
🕕 Dashboard	Cleaner (Running)				Version System Status
Containers					7.0.1.227 🗸 Healthy
🛢 Local Storage 📃 🔼					
Performance Tier	Stop Cleaner Edit Schedule				
Storage Groups					
Cleaner					
Cloud Storage					
Cloud Tier					
Archive Tier	Last v 1 hour v				
Replications					
	Cleaner Status	Cleaner	Processed		
General					
Network Interfaces					
Clients					
Fibre Channel					
Active Directory			IB -		
License			18- -		
Upload					
Terminal			18 -		
Q Diagnostics					
A Users			16:20 16:30 05-07 05-07	16:45 17:00 05-07 05-07	
🖼 Events					
 Events Management 					

5. Define the schedule and click **Set**.

Quest QoreStor						🕞 🚱 🗘 admin ~
u Dashboard ≌ Containers	Cleaner (Pending)					Version System Status 7.0.1.227 ✓ Healthy
Local Storage Performance Tier	Run Cleaner Cancel					
Storage Groups						
Cloud Storage ^ Cloud Tier Archive Tier	I 100 PM - 6:00 PM Image: Compare the second s	1:00 PM -6:00 PM (a) (C) 1:00 PM (13) * (00) (C) 1:00 PM (C) 1:00 PM (C) 1:00 PM (C) 1:00 PM (C) 1:00 PM	- 6:00 PM 🗐 🕓 1:00 PM - 6:	00 PM 🗑 🗍 🚫 1:00 PM - 6:00 F	PM 🗑 🕓 1:00 PM - 6:00 PM	🗑 🕜 1:00 PM -6:00 PM 🗊
Replications	Cleaner Status			Cleaner Processed		
General Network Interfaces						
Clients Fibre Channel						
Active Directory License				50 MB - 40 MB -		
Upload Terminal				20 MB -		
Q Diagnostics ス Users 髄 Events				0 8		
Management						

If necessary, you can also perform a full cleaner cycle manually using either the QoreStor Administrative Console or QoreStor CLI.

Quest QoreStor		
ılı Dashboard	Cleaner (Pending)	
🖾 Containers		
😫 Local Storage 🛛 🗸 🗸		_
△ Cloud Storage ~	Run Cleaner Edit Schedule	
Replications	Monday	Tuesday
🖬 System 🗸 🗸		
Q Diagnostics	() 1:00 PM - 6:00 PM	1:00 PM - 6:00 PM
A Users		
🛱 Events	Last v 1 hour v	
Management		

Figure 1: Using the QoreStor Administrative Console

11. Monitoring deduplication, compression, and performance

After backup jobs have run, the QoreStor system tracks capacity, storage savings, and throughput in the QoreStor dashboard. This information is valuable in understanding the benefits of the QoreStor software.



NOTE: Deduplication ratios increase over time. It is not uncommon to see a 2-4x reduction (25-50% total savings) on the initial backup. As additional full backup jobs are completed, the ratios will increase. Backup jobs with a 12-week retention will average a 15x ratio, in most cases.

Appendix

A. Create a Storage Device for CIFS

There are two options for BridgeHead HDM to authenticate to QoreStor throughCIFS.

- <u>QoreStor is joined into an Active Directory Domain</u>: Integrate BridgeHead HDM and QoreStor with Active Directory
- a. Ensure the AD user has appropriate ACLs to the QoreStor Containershare
- b. When creating an object, set the Backup Node of BridgeHead HDM to run with this AD user <DomainName\user>
- <u>QoreStor is a standalone CIFS server</u>: Make sure this CIFS user has appropriate access permission to the QoreStor container share. BridgeHead HDM Backup Node will use this user to authenticate to QoreStor share in Workgroup mode.
- a. To set the password for the local CIFS administrator on the QoreStor, log onto the QoreStor using SSH.
 - i. Log on with the username Administrator and password St0r@ge!
 - ii. Run the following command:

Authenticate -- set -- user administrator

> Setting Up Quest® QoreStor™ with BridgeHead Contents

```
qsadmin@target-qs > authenticate --set --user administrator
Enter new password for CIFS user administrator:
Re-enter new password for CIFS user administrator:
Changed CIFS user "administrator" password.
qsadmin@target-qs > _
```

Note: The CIFS administrator account is a separate account from the administrator account used to administer the QoreStor. After an authentication method is chosen, set the BridgeHead Healthcare

B. Create a Storage Device for NFS

For NFS backup using the BridgeHead Healthcare Data Management, a target folder needs to be created as an NFS share directory. This is the location to which backup objects will be written. This is not required while adding a CIFS share.

- 1. Mount the QoreStor NFS share onto the NFS share directory which backup objects will be written in the BridgeHead Healthcare Data Management environment.
- Verify the NFS share. One way is to try using the Linux command "cat /proc/mounts". The rsize and wsize of the connect in the command output should be 512K.