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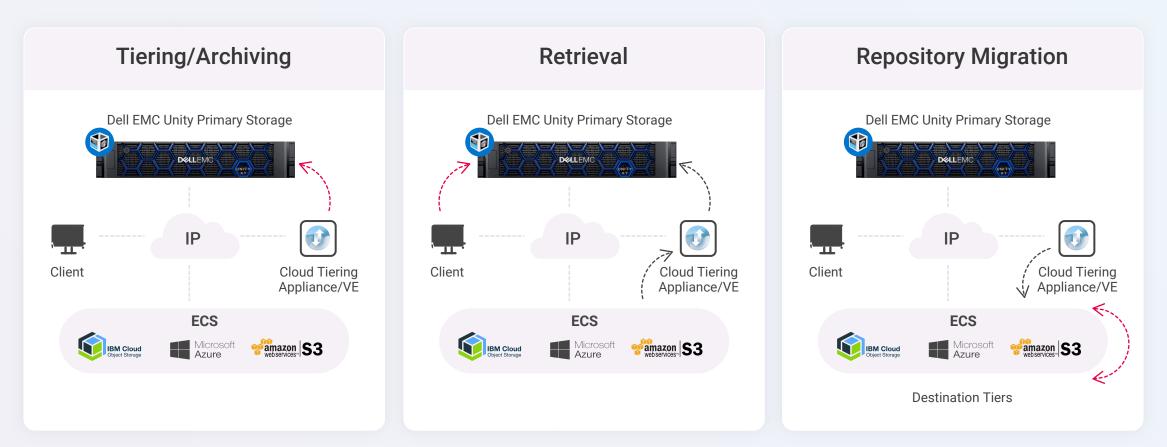
How it Works: **Cloud Tiering Appliance**

Recently, Dell EMC released an updated version of their Cloud Tiering Appliance, or CTA. Some of our readers may already be using this completely free virtual software appliance from Dell EMC, some may know about it but haven't utilized it, and some may ask "what's a CTA?" Allow us to explain.

The right-to-use license for CTA is included with every Dell EMC Unity XT array as part of its all-inclusive software model. The software comes packaged as a hardened SUSE appliance, in an .ova format which you can download free, no additional licensing required, from here, Dell account required).

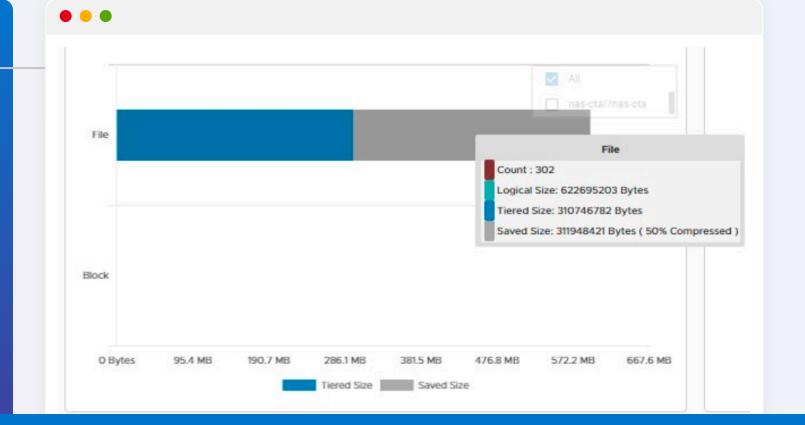
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Cloud Tiering Appliance Working Process





When moving data to the cloud, administrators can choose between fast or strong compression, and can monitor compression rates through the Tiered Usage Chart located on the Dashboard page of the CTA GUI.



What's New in CTA 13.0?



We have to give credit to Dell EMC. Not only do they have a nice new, upgraded appliance, they have rolled out several new features to go with it. The new HTML 5 interface is crisp and responsive (goodbye Flash!), and **Dell EMC has done an** excellent job with UI design, giving the CTA GUI an identical feel to a Unity XT, PowerStore or PowerMax GUI. It's always easier to operate when the interfaces that engineers and administrators utilize feel seamless.

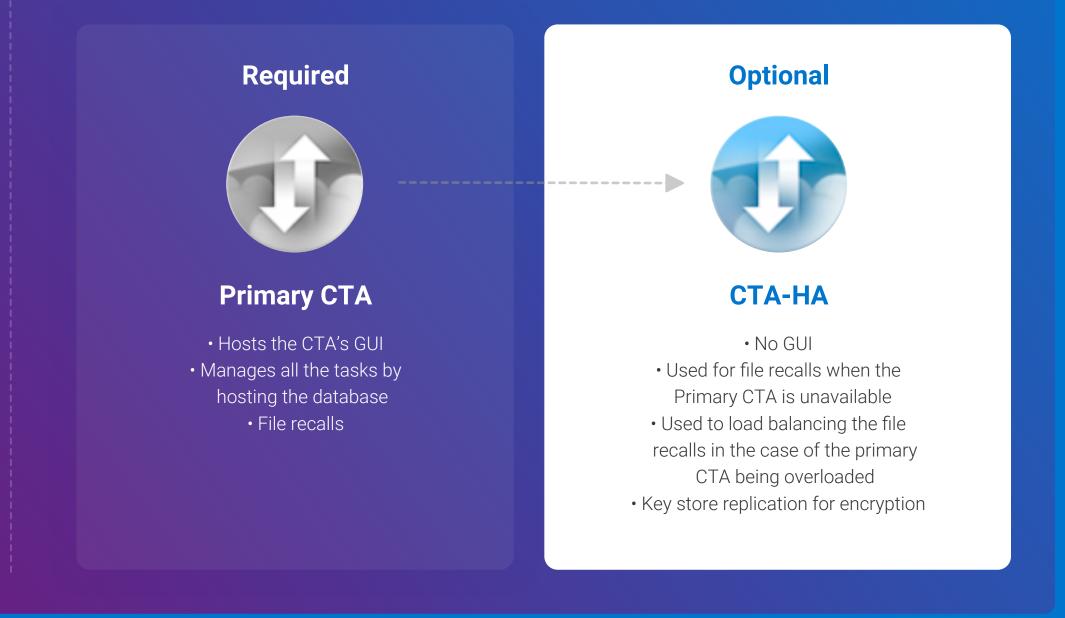


As far as security updates go, there is now added support for SMB 3.0.2 as well as SMB 2.1, including SMB auto-negotiation, signing, Kerberos and NTLM authentication. Additionally, performance improvements have been implemented for large files, with Dell EMC optimized R/W packet length to 512Kb.



Security is something to take seriously, and we're pleased that the Encryption option for the CTA requires an HA **deployment**. Having a single point of failure key store in a security architecture that could potentially result in a loss

of data if it failed, a serious risk, and Dell EMC makes sure you avoid it by requiring multiple CTAs. That's a good thing. They're keeping end users from doing bad things to themselves. We'd like to see more vendors adopt common-sense guard rails in their products.



Cloud Tiering Appliance Setup

EMC Cloud Tiering Appliance Setup Tool

- [1] Configure date and time (including time zone)
- [2] Change CTA password
- [3] Configure CTA networking
- [4] Disable/Enable setup script at login [5] Exit to command line interface [!]
- [6] Configure System Security[7] Configure Logging Options
- [8] Configure Login Banner

Cloud Tiering Appliance Setup Tool

process took us approximately 5 minutes.

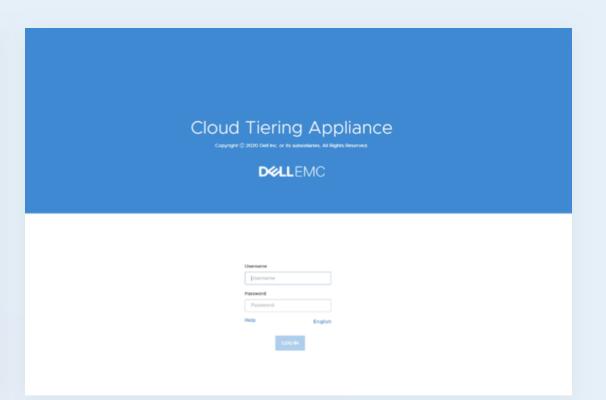
[9] Configure CTA Mail Delivery Settings [0] Exit EMC Cloud Tiering Appliance Setup Tool

There is a small amount of guided CLI during the initial setup. However,

it's not onerous, consisting mainly of time zone, networking, and setting

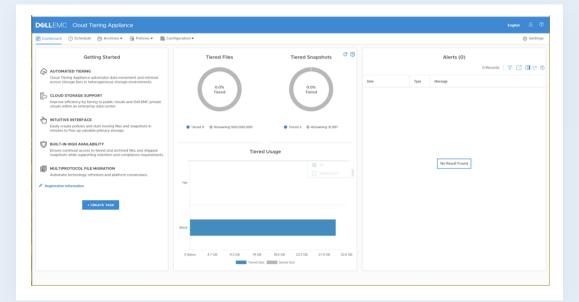
the password. From deploying the. ova to logging into the GUI, this

Selection: _



Log Into the GUI Interface

Once we've finished the CLI setup, it's time to log into the GUI interface. Again, we'd like to praise Dell EMC for the new clean UI design.



Dashboard

Once logged in, the default Dashboard page appears.

The Dashboard shows total amount of Tiered Files and Snapshots that have been moved to cloud storage, any Alerts that have occurred, and the Task Wizard.



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		CANCEL NEXT	

New Task Wizard

In the newest version, a quick walkthrough of the wizard appears as the following: select task type > select server > add ip > policy (or create policy) > schedule (or create schedule) > summary confirmation

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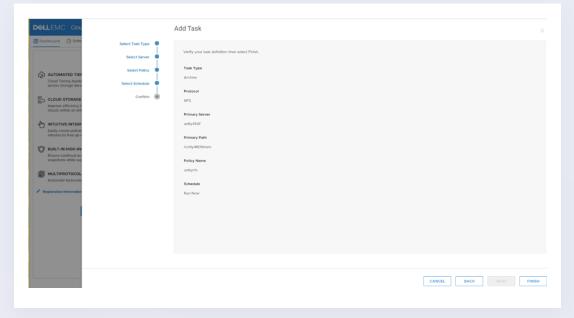
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NFS Protocol Task Selecting NFS protocol task.

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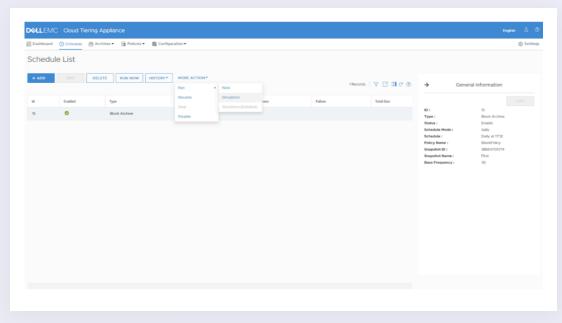
NFS Directory (Part 2)

Adding NFS Directory.



Schedule

Defining a Schedule.



Run a Schedule as a Simulation

Another nice feature under Schedule, you can run a Schedule as a Simulation, to ensure that a job will finish correctly and won't encounter errors after you create or change a Schedule.

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Source Array

Choosing source array.

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NFS Directory (Part 1) Adding an NFS Directory.

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Policy

Defining a Policy.

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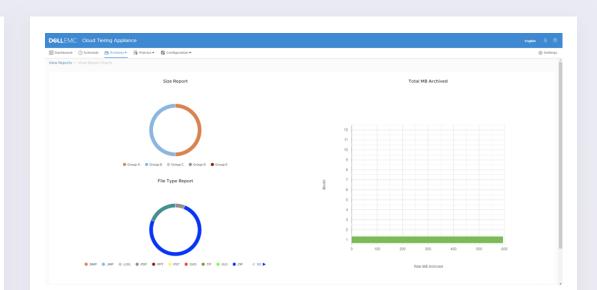
Confirming Task before Finish

Under the Schedule selection from the top menu, you're able to see all the schedules created, and if you select a specific schedule, you're able to drill down into the History of that Scheduled Task.

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Archives

Moving on to the Archives tab of the menu, this screen shows you which LUNs and Consistency Groups are setup for archiving.



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Archived File List

You can also see what files have been archived, review history of those files, the stub recovery and orphan deletion logs under the Archives menu.

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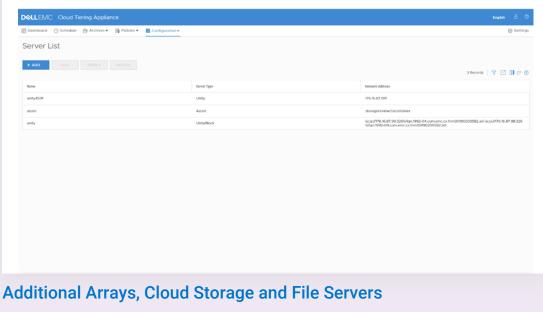
Archived Report Settings

Archived report settings provides additional options to prune and manage reporting.

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Policy Screen (General Information)

Note that on the Policies screen, when you choose a policy, a General Information pane will appear, offering more information about that particular policy.



Adding additional arrays, cloud storage, and file servers.

View Reports Screen

The CTA offers a good view of data in use as well via the view reports screen.

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Policies List

Under the Policies menu, you're able to view all Policies that have been created on the CTA, or create a new one.

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Key Activation Time:	This key yet to be active	
Replica IP:	This key yet to be active	
Key Status:	pending	

Encryption Setting

The final menu item available in the CTA GUI is the Configuration. It's under here that you'll find items such as encryption.

Common API Settings

As well as common API settings including File Mover and Unity Credentials.

Conclusion

To close, we at StorageReview are rather impressed with the Dell EMC Cloud Tiering Appliance overall and especially the newly released version 13.0, with much improved UI. It's bringing the benefit of tiering and cloud archiving to organizations as a zero-cost engine (reminder: it doesn't include your cloud storage or network costs) for existing and prospective Unity XT storage array customers. We highly expect to see an uptick in market adoption of the Unity XT Cloud Tiering Appliance moving forward.



StorageReview

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