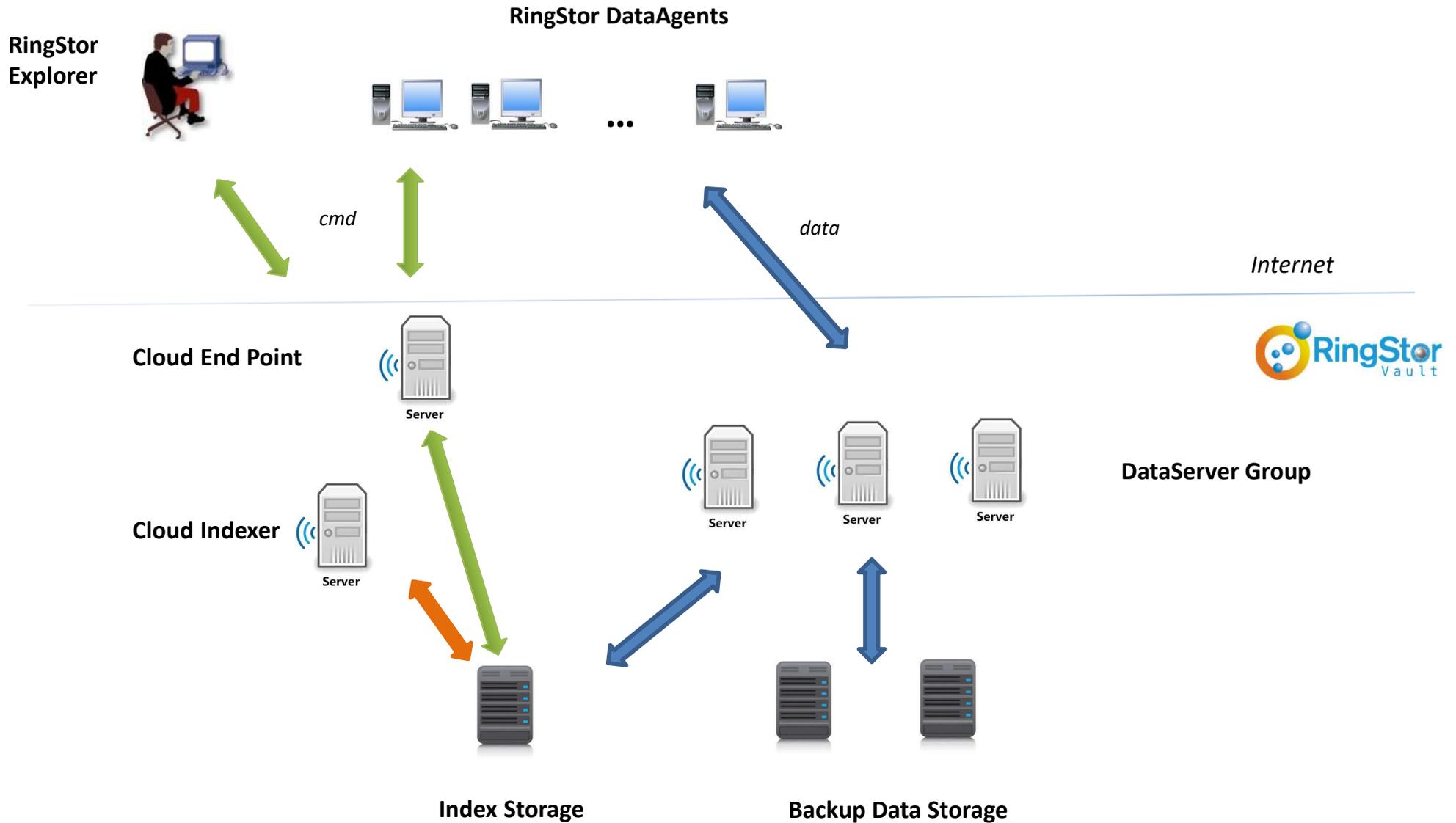


What makes RingStor Enterprise unique?



Complete Private Cloud Backup and Recovery Software Solution:

- **Proven Scalability** - Support 5000+ concurrent backups at partner site
- **Multi-tenant and multi-level** - Tailored data protection solution for every client
- **OpenStack** - Unique backup solution to protect volumes at up to 2TB/hour on one backup agent
- **Synology, Qnap Support** - Backup agent runs directly on NAS, fast and convenient
- **Deduplication** - At both file and block level
- **Administrative Easy** - Dashboard, alerts, automated reports, and more
- **Integration** - Development API for third party integration
- **Partner Program** - White label ready and dedicated support





Backup



Staging Volume

Snapshot



Network/Internet via https

API



OpenStack Backup Overview

Backup Modes

- Online: backup directly to RingStor Vault

Backup Type

- Full: all blocks on the volume are backed up
- Incremental: blocks modified since last backup are backed up

Backup Volumes

- Volumes from instances are listed
- Snapshot of each volume is taken
- A staging volume is created from the snapshot
- The staging volume is attached to RingStor DataAgent in OpenStack
- The staging volume is read into blocks
- The changed blocks are backed up

OpenStack Backup Steps

Create Linux-based Instance in OpenStack

- Minimum Free Space: 20GB
- Minimum Memory: 2GB

Install RingStor DataAgent software in Instance

Create DataSet from RingStor Explorer

Schedule Backup

Schedule Backup

Recurring incremental backup is essential to protect files

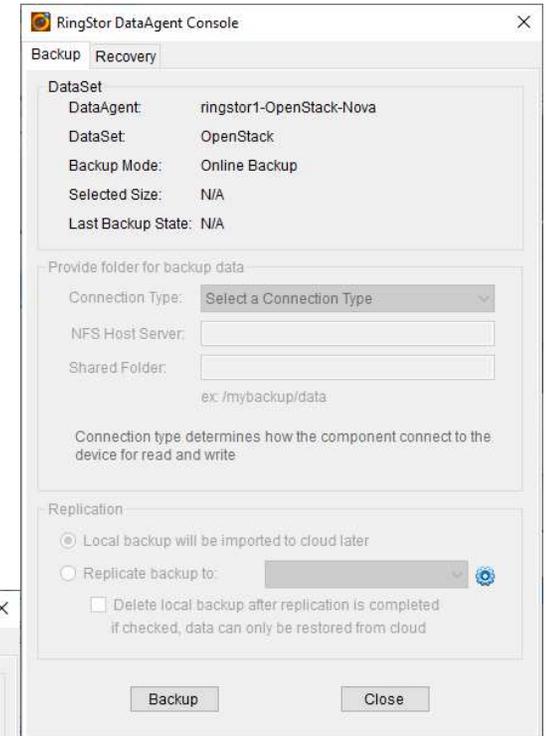
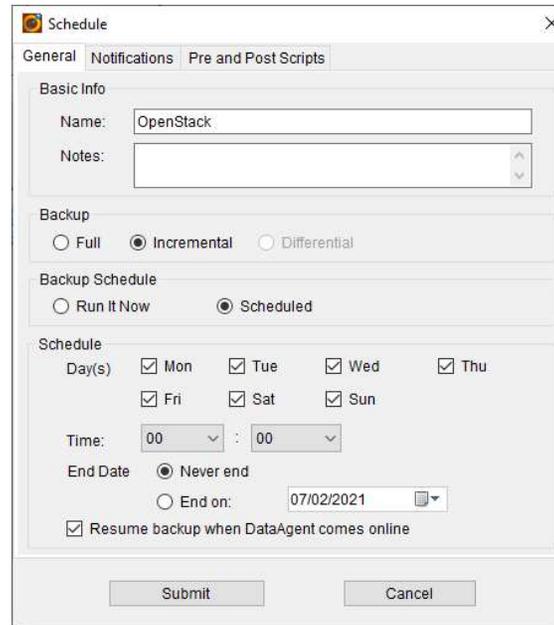
Step 1 – Log into RingStor Explorer

Step 2 – On left pane, select community, DataAgent, and click OpenStack Backup to bring up DataSets in right pane

Step 3 – Right click a DataSet in right pane, click Backup and Recover menu

Step 4 – On Backup tab, click Backup button

Step 5 – Set schedule details, notification if needed



Restore

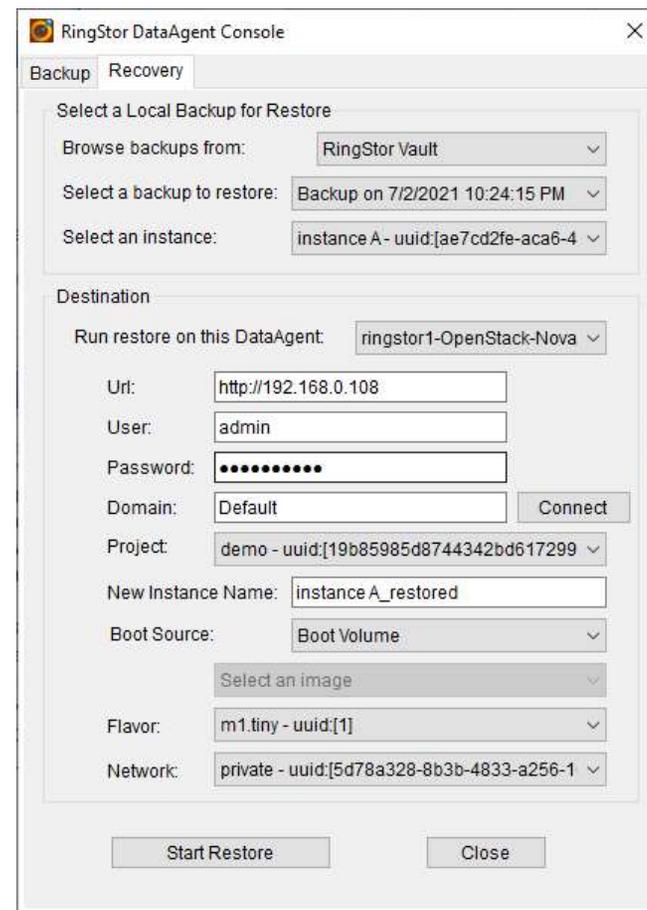
Step 1 – Log into RingStor Explorer

Step 2 – On left pane, select community, DataAgent, and click OpenStack Backup to bring up DataSets in right pane

Step 3 – Right click a DataSet in right pane, click Backup and Recover menu

Step 4 – On Recovery tab, set restore parameters.

Step 5 – Click Start Restore



The screenshot shows the RingStor DataAgent Console window with the Recovery tab selected. The window is titled "RingStor DataAgent Console" and has a close button in the top right corner. The main content area is divided into two sections: "Select a Local Backup for Restore" and "Destination".

Select a Local Backup for Restore:

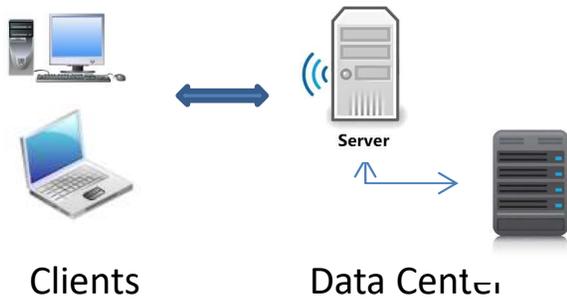
- Browse backups from: RingStor Vault (dropdown)
- Select a backup to restore: Backup on 7/2/2021 10:24:15 PM (dropdown)
- Select an instance: instance A - uuid:[ae7cd2fe-aca6-4] (dropdown)

Destination:

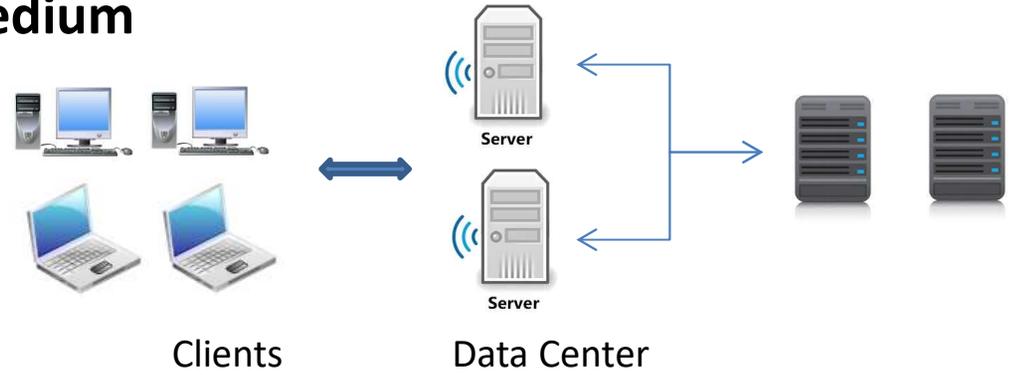
- Run restore on this DataAgent: ringstor1-OpenStack-Nova (dropdown)
- Url: http://192.168.0.108 (text input)
- User: admin (text input)
- Password: [masked] (password input)
- Domain: Default (text input) [Connect button]
- Project: demo - uuid:[19b85985d8744342bd617299] (dropdown)
- New Instance Name: instance_A_restored (text input)
- Boot Source: Boot Volume (dropdown)
- Select an image (dropdown)
- Flavor: m1.tiny - uuid:[1] (dropdown)
- Network: private - uuid:[5d78a328-8b3b-4833-a256-1] (dropdown)

At the bottom of the window, there are two buttons: "Start Restore" and "Close".

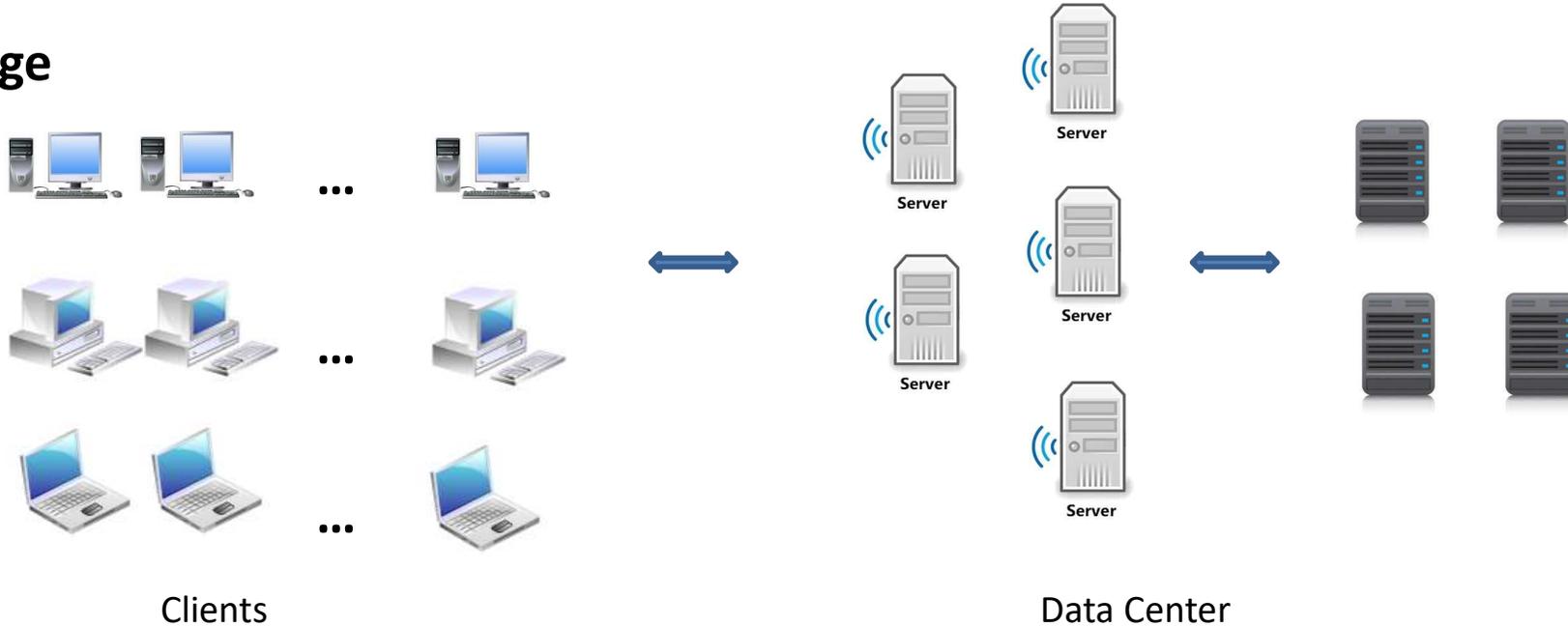
Small



Medium



Large





openstack®



Microsoft®
Exchange



Microsoft®
SQL Server®



Windows
Hyper-V™

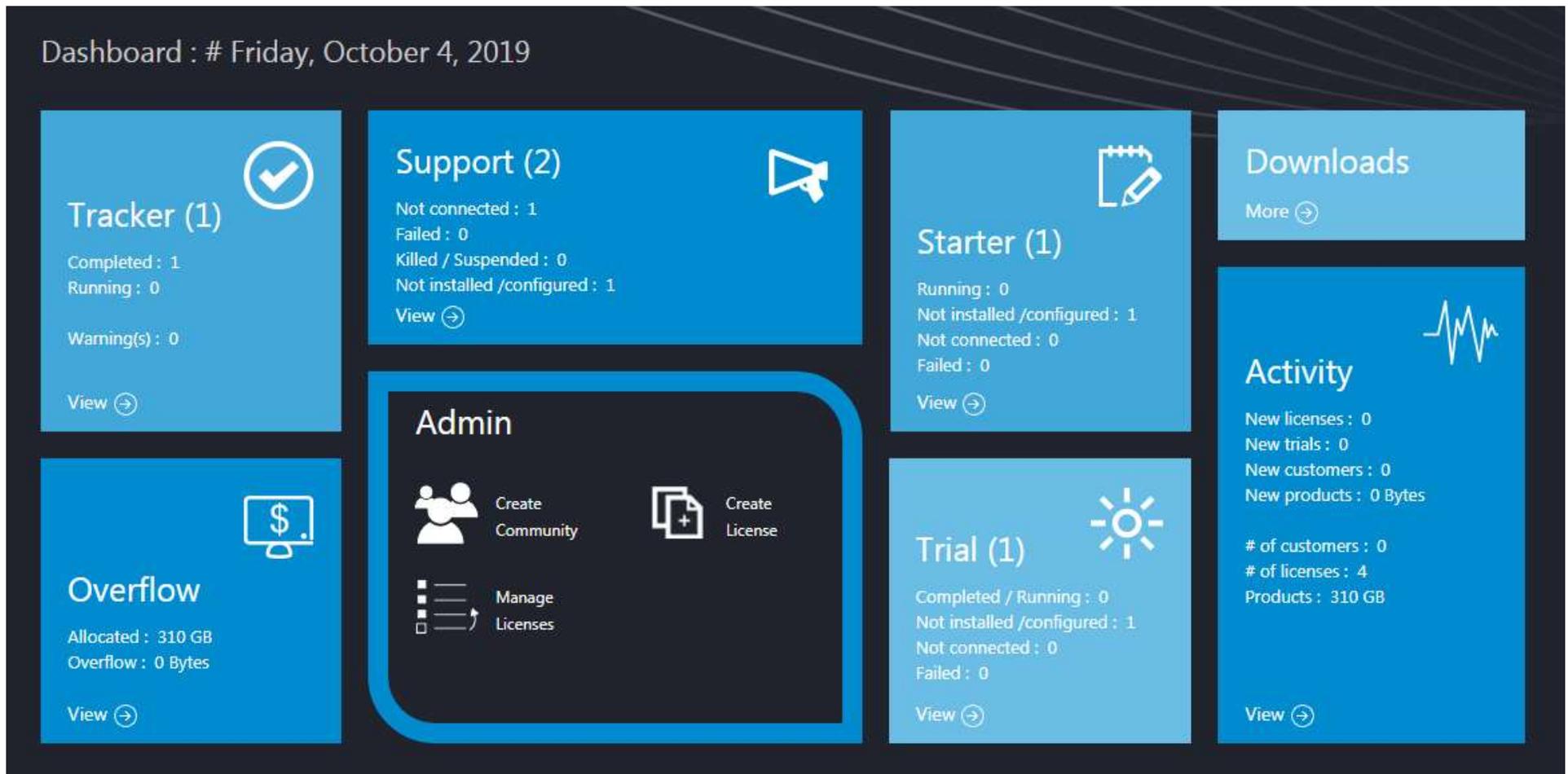
 Office 365

 vmware®
vSphere


MySQL™

RingStor provides API for Partners to integrate with RingStor private cloud

Dashboard : # Friday, October 4, 2019



The dashboard is composed of several blue panels with white text and icons. The 'Tracker' panel shows 1 completed and 0 running items. The 'Support' panel shows 2 items with 1 not connected, 0 failed, 0 killed/suspended, and 1 not installed/configured. The 'Starter' panel shows 1 item with 0 running, 1 not installed/configured, 0 not connected, and 0 failed. The 'Downloads' panel has a 'More' link. The 'Activity' panel shows 0 new licenses, trials, or customers, and 0 new products (0 Bytes). The 'Admin' panel is highlighted with a rounded border and contains 'Create Community', 'Create License', and 'Manage Licenses' options. The 'Overflow' panel shows 310 GB allocated and 0 Bytes overflow. The 'Trial' panel shows 1 trial with 0 completed/running, 1 not installed/configured, 0 not connected, and 0 failed.

Tracker (1)	Support (2)	Starter (1)	Downloads
Completed : 1 Running : 0 Warning(s) : 0	Not connected : 1 Failed : 0 Killed / Suspended : 0 Not installed /configured : 1	Running : 0 Not installed /configured : 1 Not connected : 0 Failed : 0	More →

Admin

- Create Community
- Create License
- Manage Licenses

Overflow	Trial (1)	Activity
Allocated : 310 GB Overflow : 0 Bytes	Completed / Running : 0 Not installed /configured : 1 Not connected : 0 Failed : 0	New licenses : 0 New trials : 0 New customers : 0 New products : 0 Bytes # of customers : 0 # of licenses : 4 Products : 310 GB