

Additional services: Disaster Recovery (DR) backup

Disaster Recovery (DR) Backup is a “managed” service offering from Kodak that automates the process of backing up copies of designated files and folders from a compliant server to a secure storage account in the Prinergy Cloud.

By keeping redundant copies of business-critical files in the cloud, this service helps print service providers minimize the negative business impacts that occur from a natural disaster, theft, fire, ransomware attack and or hardware failure.

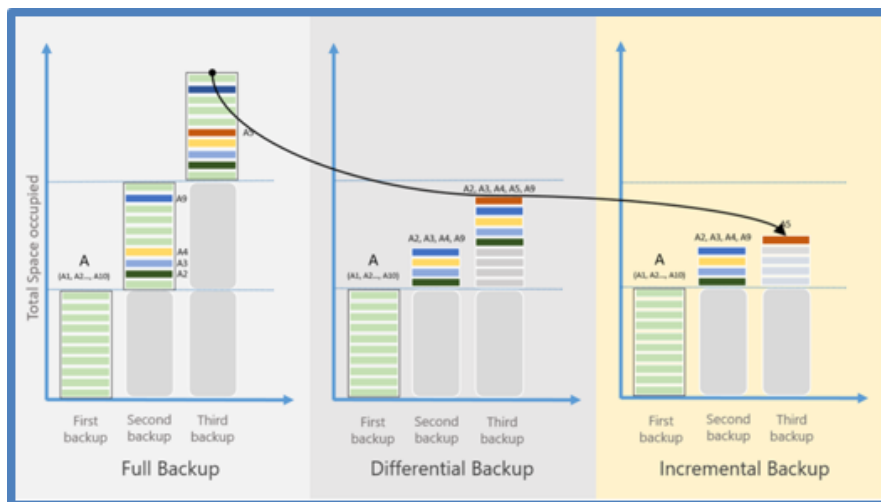
DR Backup is a chargeable option for the Prinergy Cloud: File Archive and Backup Service, and cannot be purchased stand-alone.

How does the technology work?

In **Full backups**, a copy of the entire data source is stored for every backup. This leads to high network and storage consumption due to transfer of full copies every time.

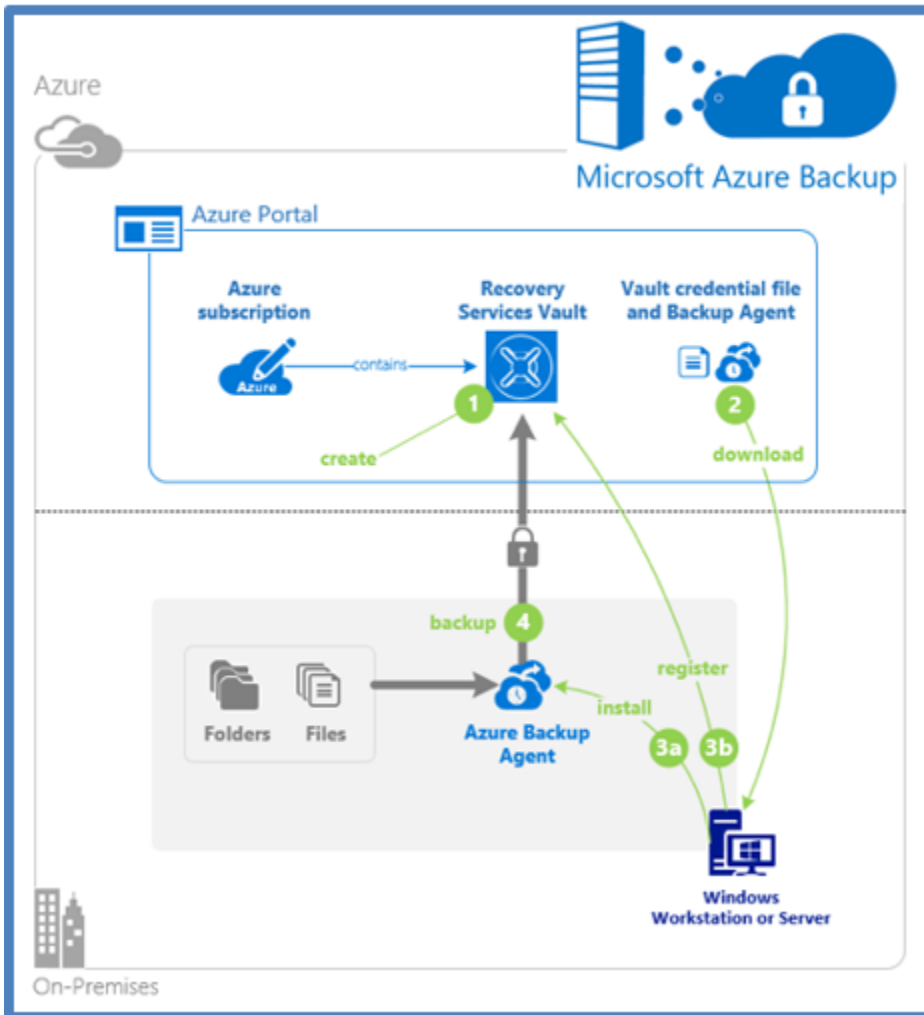
Differential backups store only the blocks that have changed since the initial full backup, resulting in lesser network and storage consumption. Hence, after the initial copy, only the blocks that have changed since then are backed up for every subsequent backup. This avoids redundant copies of unchanged data, but is inefficient since the blocks that remain unchanged between further backups are transferred and stored as well.

Incremental backups achieve high storage and network efficiency by storing only the blocks that change since the previous backup. This also negates any need to take regular full backups as was needed in Differential backups. This leads to storage and network savings due to lesser data being transferred. With the technology used at Microsoft, even with Incremental Backups, the restores take constant time: no matter which recovery point you restore, they would all happen equally fast.

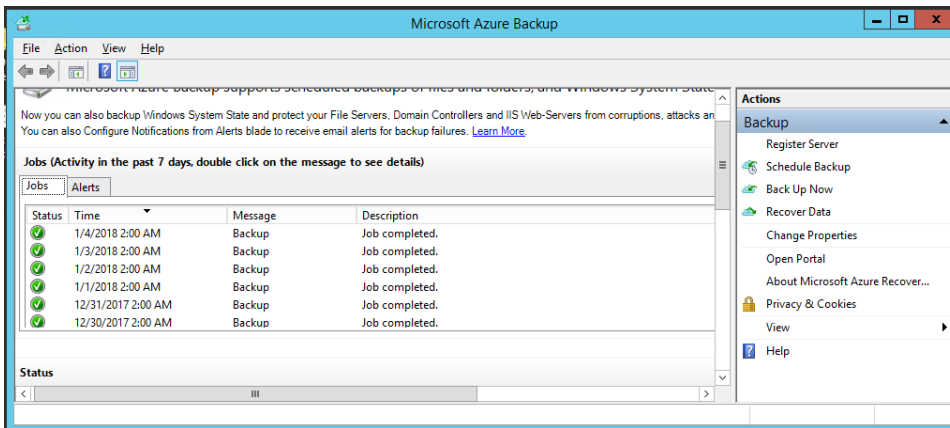


How does the DR Backup Service work?

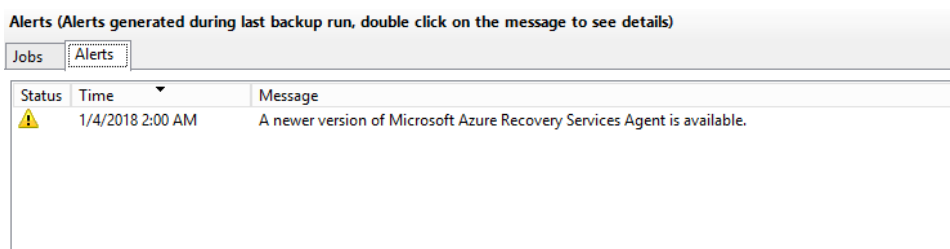
- For each customer subscribed to the cloud service, a unique Service Recovery Vault (SRV) is created in the Prinerger Cloud.
- During the provisioning and activation process, Kodak production will install a Cloud agent on each server that holds data to be backed up.
- Data is encrypted in transit and in rest.
- Scheduled backups are automated via policy settings applied in the Prinerger Cloud.



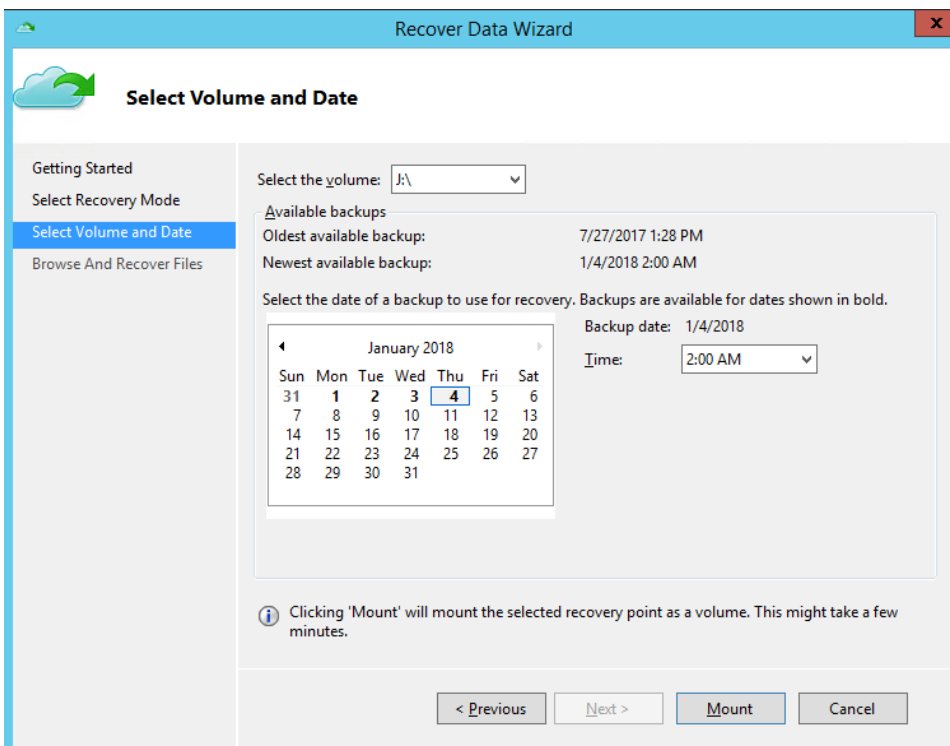
- Automated backups of designated files and folders can be monitored by launching the Microsoft Azure Backup Agent software, that is installed on a Prinerger Primary or Tertiary server.

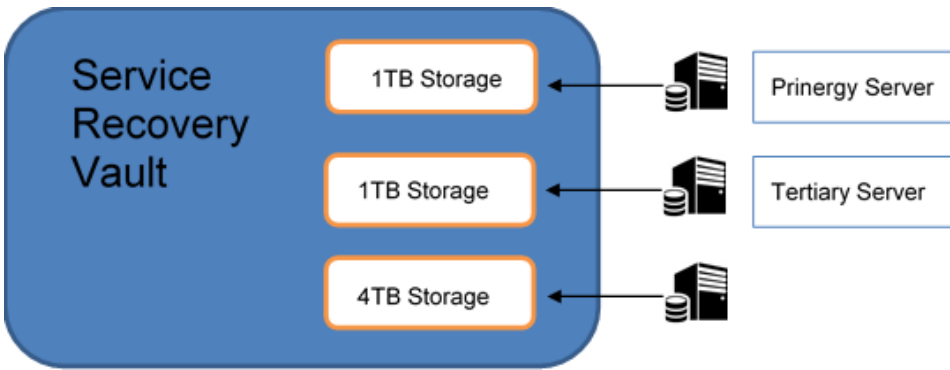


- Notification of software updates are displayed on the **Alerts** tab.



- Customers can retrieve individual files or folders themselves through the use of the Recovery Data Wizard. Eliminating the need to contact Kodak for help.
- For a full system restore, the customer must contact the Kodak CEC for assistance.





What files or folders do we back up?

Prinergy Server:

The `J:\Jobs` folder and the `J:\PrinergyBackups` folder are backed up by default for Prinergy.

Note: You will be able to specify the folders that need to be backed up according to the server's application workflow.

If the files you need to backup are located on another server, they will need to either be copied locally or Azure Backup will need to be installed on the other server and another storage account provisioned.

Can network activity be throttled?

Yes, the amount of bandwidth used to copy files can be customized by day and time of day by setting preferences in the Microsoft Azure Backup Agent.

The screenshot shows the 'Microsoft Azure Backup Properties' dialog box with the 'Throttling' tab selected. The 'Enable internet bandwidth usage throttling for backup operations' checkbox is checked. Below this, there are settings for 'Work hours' and 'Non-work hours'. 'Work hours' is set to 512.0 Kbps, and 'Non-work hours' is set to 1023.0 Mbps. A horizontal line separates these from the 'Work hours' time range, which is set from 9 AM to 5 PM. Below the time range, the 'Work days' section shows checkboxes for Sunday (unchecked), Monday (checked), Tuesday (checked), Wednesday (checked), Thursday (checked), Friday (checked), and Saturday (unchecked). At the bottom right, there are 'OK' and 'Cancel' buttons.

Property	Value
Enable internet bandwidth usage throttling for backup operations	<input checked="" type="checkbox"/>
Work hours (bandwidth)	512.0 Kbps
Non-work hours (bandwidth)	1023.0 Mbps
Work hours (time range)	9 AM to 5 PM
Work days	<input type="checkbox"/> Sunday, <input checked="" type="checkbox"/> Monday, <input checked="" type="checkbox"/> Tuesday, <input checked="" type="checkbox"/> Wednesday, <input checked="" type="checkbox"/> Thursday, <input checked="" type="checkbox"/> Friday, <input type="checkbox"/> Saturday

Can the customer monitor the activity?

The Microsoft Azure Backup Agent can be used by the customer to view alerts, policy settings, recovery points, and backup job activity.

Kodak will place a shortcut on the desktop of the server during installation of the Cloud agent.