



ASSURED DP - BACKUP AS A SERVICE

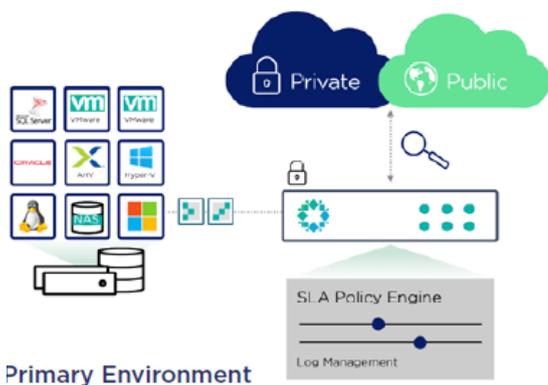
Introduction

Backup as a Service (BaaS) is a modern alternative to a traditional approach to backup. Instead of building and maintaining complicated in-house backup processes, businesses can choose to purchase backup and recovery services from a specialist.

Assured DP's BaaS solution simplifies backup and is fully inclusive of all hardware, software and support. Our backup and data protection services give your IT team more time to focus on businesscritical tasks instead of spending valuable time managing backups. Whether your current solution is due for renewal, isn't performing adequately or you are reviewing how to improve, you can trust our specialist team to support all your backup and recovery requirements.

We selected Rubrik as our backup software vendor which allows us to provide fully tailored solutions for business of all sizes. We protect customers with single and multiple locations, 5TB to 5PB of data, across private, public and hybrid cloud environments.

How it works



Rapid Install: Auto-discovery and automation of backups for effortless management.

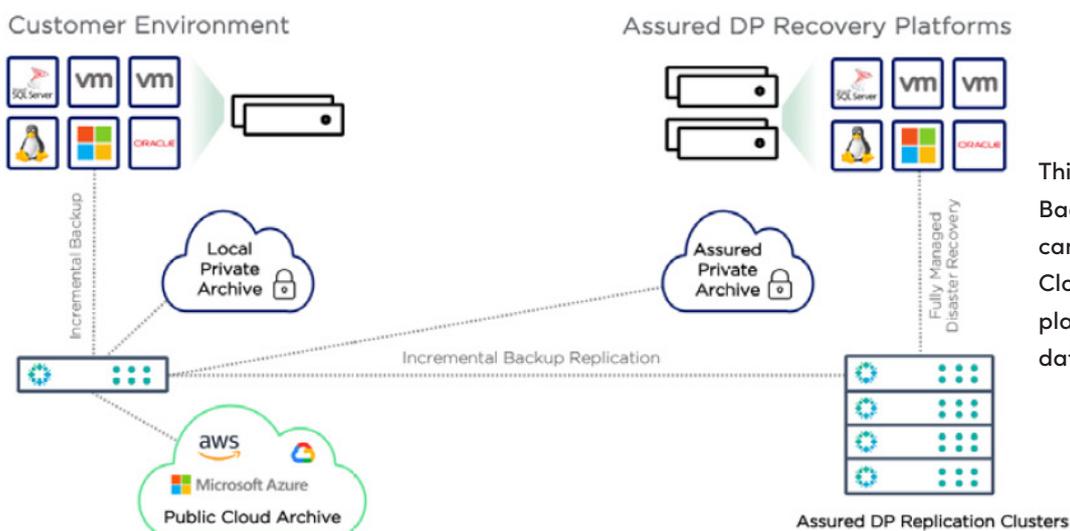
Rapid Ingest: Flash-optimised, parallel ingest accelerates snapshots and eliminates stun. Contentaware dedupe.

Instant Recovery: Live Mount VMs, volumes and databases. Bare Metal Recovery. 'Google-like' search and file restore.

Secure: End-to-end encryption. Immutability to fight Ransomware.

Cloud DR: Instantly accessible with global search. Recover VMs instantly in Private/Public Cloud

Backup as a service solution architecture



This diagram shows a Public Cloud Backup architecture. The solution can also be deployed as a Private Cloud where the replication and DR platform reside within the customers' data centre.

Assured DP's service guarantee

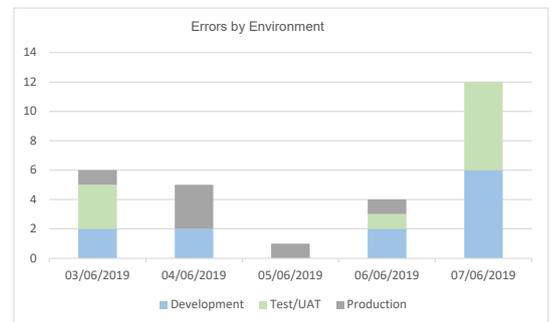
Our BaaS solution is all about service. All our customers receive a dedicated account manager to ensure a high quality service from implementation through to daily proactive support. The account manager is supported by an implementation team then transitioned seamlessly to our UK hosted global support.

BaaS customers all benefit from unlimited access and use of ProtectView. ProtectView is a cloud-based, centralised platform which enables users to proactively view and monitor their entire Rubrik estate in a single pane of glass.

Example daily reporting

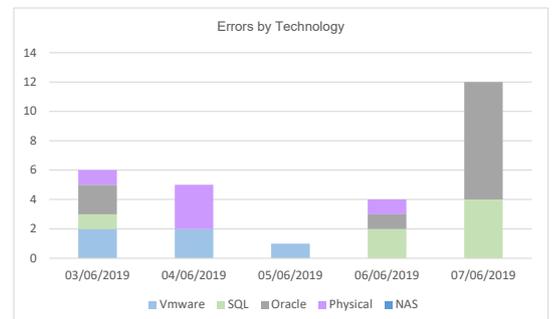
Errors by Environment

Date	03/06/19	04/06/19	05/06/19	06/06/19	07/06/19
Development	2	2	0	2	6
Test/UAT	3	0	0	1	6
Production	1	3	1	1	0
Total	6	5	1	4	12



Errors by Technology

Date	03/06/19	04/06/19	05/06/19	06/06/19	07/06/19
Vmware	2	2	1	0	0
SQL	1	0	0	2	4
Oracle	2	0	0	1	8
Physical	1	3	0	1	0
NAS	0	0	0	0	0
Total	6	5	1	4	12



	1 Failure	2 Failures	3 Failures
Vmware		1	11



Available service levels

	Supply and install	Standard Managed service	Premium managed service
Rubrik cluster supplied, installed and configured	✓	✓	✓
Access to Rubrik support for any issues	✓	✓	✓
Hardware monitored for failure		✓	✓
Fully supported by Assured DP's team for any support during local business hours, backed by Rubrik support and engineering		✓	✓
All patching, maintenance and upgrades will be processed by Assured DP		✓	✓
Assured DP's unique portal giving concise aggregated status of overnight protection		✓	✓
Assured DP's bespoke daily email efficiently summarises overnight activities		✓	✓
Fully supported by Assured DP's team for any issues 24x7 backed by Rubrik support and engineering			✓
Intervention applied by Assured DP to troubleshoot and remediate any errors, tracked through our proven processes			✓
Integration of workflow via servicenow			✓
Dedicated Account Manager			✓
Access to early release software features via a dedicated sandbox environment			✓

If you would like further information on our service levels, please contact a member of our team.

Optional services available on request

- ✓ **RaaS** - Assured DP's Replication as a Service gives a safe and secure location to store backup data offsite in case of a total site loss.
- ✓ **DRaaS** - Inclusive of RaaS, provides the ability to recover servers within Assured DP's recovery platform rapidly in the event of a serious incident providing continuation of IT services

- ✓ **VDRaaS** - As an addition to DRaaS, Virtual Desktop as a Service gives end users the convenience of a consistent desktop experience allowing quick, secure and convenient login to the recovered environment. This allows users to work from home, a second office or wherever required to keep the business running whilst the crisis is evaluated and resolved

Replication as a service

Replication into Private Cloud	Replication into Assured DP Private Cloud
Requires a Multi-Node Rubrik cluster as the replication target	Can accept replication from any type of cluster
DR is controlled in house	Enables the optional DRaaS
End user workspace is controlled in house in the event of a DR	Enables the optional VDI DRaaS

Archiving as a service

Archive into Private Cloud	Archive into Public Cloud
Move long-term data off Rubrik into a more cost-effective platform	
Supports popular protocols on local storage including S3 and NFS	Support for Azure, Amazon, GCP and Assured DP's own public cloud offering
Enables full control over the redundancy and protection of long-term data	Unlimited scalability
Has the potential to re-use existing storage capacity that is surplus	Flexible consumption models

BAAS Appliance Types

Single-Node Rubrik Cluster	Multi-Node Rubrik Cluster
Ideal for sites with up to 20 TB of data	Unlimited scale from 20 TB
Deploy any number cost effectively across a distributed environment	Suits centralised environments with most data residing in few locations
Includes secure Rubrik replication to Assured DP's cloud environment	Includes stand-alone platform with the option to replicate to private or public cloud

Who are Rubrik

Rubrik are the market leaders in Cloud Data Management. For almost 20 years backup systems have changed very little. Rubrik looked at these traditional methods to see how they could improve the process. They came up with the world's first platform to orchestrate data for hybrid cloud enterprises, anytime, anywhere, creating a simple solution with an all in one Hyper Converged Scale-out appliance.

Rubrik encompasses backup, instant recovery, replication, search, analytics, archival, compliance, and copy data management securely into data infrastructure and public or private cloud. It has fantastic benefits and functionalities to create seamless integration with all databases.

Assured DP

At Assured Data Protection, we have over 100 collective years of industry experience. We work exclusively with Rubrik so we know the product inside out and we understand its exceptional capabilities.

As their leading MSP we can offer the solution as a managed service tailored to individual business needs on either a Capex or Opex model, making it affordable and achievable.

BAAS Benefits – Technical Overview

Equipment footprint & installation

Our single node devices occupy 2U of rack space and multi node clusters take around 4U of rack space per 100TB of capacity. A typical single node deployment will take around half a day to install and configure, where larger clusters are often assigned to a project team to deploy in conjunction with the customers key project personnel.

Networking requirements

Single nodes will function well on standard 1 GB ethernet. Full clusters will require a number of 10Gb ports for operation.

Security / RBAC

LDAP Authentication is supported, and we recommend it be used to control end user access.

Support

Support hours vary based on your service level, but all support requests will be handled from our UK-based HQ.

Supported platforms

Rubrik support an ever-increasing number of platforms directly, and at Assured DP we have experience in handling less common platforms that need special attention. There is full support for VMware, Hyper V, Acropolis, Windows, Linux, Microsoft SQL, Oracle and SAP Hana for example, most customers requirements are met easily.

No hidden costs

You pay a flat fee for the storage used, irrespective of how many backups or restores are performed, or how frequently. There is no additional charge for agents, or for adding additional servers to protect.

Reporting – Protectview

At Assured DP we leverage ProtectView. This single pane of glass is provided with all our managed backup services and gives clear and concise insight into the state of your backups, and a useful daily email summary into your Inbox.

Data retention

Any number of different retention policies can be configured, each with total flexibility over how many versions of the backup should be retained and at what frequency. The ability to archive older data to a cheaper storage tier is included and can be configured per retention policy to efficiently store data exactly where is preferred.

BAAS Benefits – Technical Overview continued

Data protection

Single node clusters are protected with Raid 6 arrays, and Multi node clusters use Erasure coding to prevent the loss of 1 or 2 discs causing any sort of system outage. In both cases the disc failures are monitored by Assured DP and we will action the replacement where the hardware is under support with us.

Data security

Encryption of the Rubrik cluster is an option on all our platforms.

Hardware maintenance

Drives and power supplies are monitored for failure by Assured DP. We will arrange for the replacement of these and any other failed devices swiftly where the hardware is under support from ourselves.

Automation

Rubrik operates an API first architecture, allowing the full scripting and automation of all aspects of the platform.

Recovery options

At the customer site there are numerous methods for recovering data. File sets and virtual machines both support the rapid recovery of individual files to original and alternate locations. Virtual machines can also be restored as per traditional methods, or 'live mounted' to provide near-instant access to the VM by having the VMware environment run the virtual machine off a datastore virtualised by the Rubrik cluster itself, saving the need to actually restore the data anywhere. Microsoft SQL databases can also be live mounted, providing near instant access to potentially very large databases. There is also support for the Bare Metal Recovery of Windows file servers where required. Additionally, for customers with our optional RaaS and DRaaS, servers can be recovered in our recovery platform.