ExaGrid Cloud Tier Solution
for ExaGrid Tiered Backup Storage

ExaGrid Tiered Backup Storage

Fastest Backups.

Fastest Recoveries.

Unparalleled,
Cost-effective
Scale-out.

The ExaGrid Cloud Tier allows customers to replicate deduplicated backup data from a physical onsite ExaGrid appliance to the cloud tier in Amazon Web Services (AWS) for an offsite disaster recovery (DR) copy.

The ExaGrid Cloud Tier is a software version (VM) of ExaGrid that runs in AWS as an EC2 instance. The physical onsite ExaGrid appliances replicate to the cloud tier running in AWS. The cloud tier writes the deduplicated data to AWS S3 storage. Since the data replicated is only deduplicated data, the amount of S3 storage required is less than would be the case when storing non-deduplicated data, and the average deduplication ratio is 20:1. Deduplication ratios can range from 10:1 to as much as 50:1 and vary based upon the type of data being backed up and replicated, e.g., unstructured files, databases, rich media, etc.

The ExaGrid Cloud Tier looks and acts exactly like a second-site ExaGrid appliance. Data is deduplicated in the onsite ExaGrid appliance and replicated to the cloud tier as if it was a physical offsite system. All features apply such as encryption from the primary site to the cloud tier in AWS, bandwidth throttle between the primary site ExaGrid appliance and the cloud tier in AWS, replication reporting, DR testing, and all other features found in a physical second-site ExaGrid DR appliance.

The entire data set can be replicated to AWS, or a customer can decide to replicate only specific shares. The options are:

- Replicate all shares to AWS
- Replicate some shares to AWS
- Replicate some shares to AWS and the remaining shares to a second-site physical ExaGrid appliance

Customers purchase an onsite physical ExaGrid appliance for their onsite backups and a software license for the ExaGrid Cloud Tier in AWS (a virtual appliance – VM). Customers then set up an AWS account (or use their existing account with AWS). The ExaGrid Cloud Tier software is remotely installed and configured on EC2 and is targeted to S3 storage. All EC2 and S3 fees are direct between the customer and AWS.

The ExaGrid Cloud Tier software license is a fixed percentage of the price paid for the physical onsite ExaGrid appliances and is a perpetual license. For each physical onsite appliance, an ExaGrid Cloud Tier license is required for AWS.

With the hardware, software, and an annual Maintenance and Support Agreement, ExaGrid provides:

- ExaGrid system sizing before the purchase
- Onsite physical ExaGrid appliance
- ExaGrid Cloud Tier software (VM) for AWS
- Remote end-to-end installation with phone support
- Training over the web
- Phone and email support
- Point and full version releases
- Next day business air replacement of any failed hardware component at the primary site

Customer provides:

- Backup software application
- Primary site data center
- Internet bandwidth to AWS
- AWS account for EC2, EBS, and S3 storage; S3IA ("infrequent access") storage recommended
    - The ExaGrid Cloud Tier installation/configuration process must be performed with an ExaGrid support engineer
    - A new m4.xlarge EC2 instance is allocated as part of the installation/configuration process. Pre-existing instances cannot be used. A reserved instance is recommended for the lowest ongoing AWS costs
    - 1.05TB of standard IOPS, magnetic EBS storage is allocated during install
    - A new S3 bucket is allocated as part of the installation/configuration process. S3IA buckets are recommended for lowest ongoing AWS costs. By default, this new S3IA bucket is allocated with encryption enabled (encryption at rest)
    - Deduplicated backups are encrypted across the connection between the physical ExaGrid server(s) and the ExaGrid Cloud Tier instance in AWS.

Initial Backup Data Seeding

The initial backup will be replicated to the ExaGrid Cloud Tier in AWS. Once the initial seeding is complete, only the deduplicated changes from backup to backup are replicated to the cloud tier moving forward. The time to seed and further replicate daily changes is dependent on the amount of bandwidth the customer has allotted for replication to AWS. The recovery point (RPO) is dependent upon the customer's onsite backup rotation and the amount of bandwidth allocated to AWS for replication.

Disaster Recovery from the ExaGrid Cloud Tier

A backup application is required for recovery from the ExaGrid Cloud Tier whether the backup application is at the customer site or is an EC2 instance in AWS. The recovery times (RTO) will depend upon the amount of data to be recovered and the amount of bandwidth the customer has allotted between the recovery site and AWS. Use the backup application to securely recover data to any target inside or outside of AWS.