



Backup and Disaster Recovery Policy

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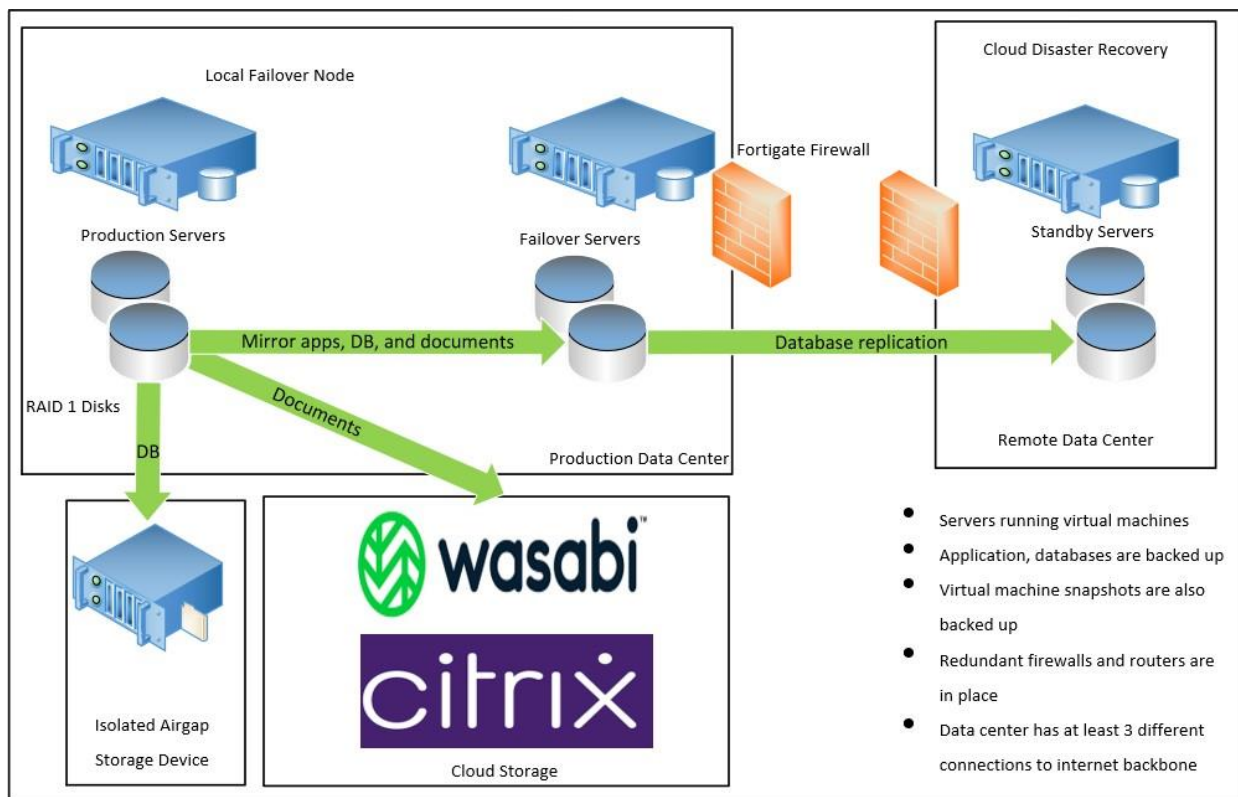
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Overview

Patagonia Health manages mission critical data for the health care organizations it serves. Every minute the EHR is inaccessible, the organizations stand to lose revenue and potentially impair quality of care provided to patients. Patagonia Health recognizes that the doctors, clinicians and staff must have access to the EHR 24x7 anywhere in the world. Patients also have access to their own records via the patient portal, so it is critical for the EHR to remain highly available.

EHR & Billing Backup Processes



1. Full system mirroring

The EHR system's virtual machines are mirrored in full to a secondary failover server in the data center every 5 minutes. Critical virtual machines are mirrored to the cloud every 15 minutes.

2. Daily database backups

Every day, a full backup of the database is performed, with database transactions backed up on an hourly basis. 8 days of database backups are maintained on a local server for rapid recovery in the event of a disaster. We also archive 1 year of SQL databases on a NAS device.

3. Nightly backup to isolated device

Every night, the previous 14 days of data are backed up to an 'air-gapped' device. This protects the data from any network wide issues, incidents, or ransomware attacks.

4. Database backup to cloud

Every hour, all database transactions are replicated to the cloud.

5. Document backups

Uploaded documents are replicated to a secondary server in the local datacenter. Documents are also backed up to the Wasabi cloud storage service on an ongoing basis.

Billing System Backups

Patagonia Health's billing system is an independent module with its own system architecture and processes. The backup processes for this system are as follows:

1. Incremental database backups

A backup of database transactions is always maintained for the previous 15 minutes. This enables a recovery with minimal data loss.

2. Full database backups

Every week, a full backup of the billing database is created.

3. Supporting document backups

All documents and reports utilized by the billing system are backed up several times a day.

4. Full system mirroring

The billing system's full virtual machine is copied to a secondary physical server in the data center.

5. Cloud storage

All backed up database files and documents are stored in Citrix Secure Cloud as well as on premises. In the event of a disaster, system recovery can be achieved within 4 hours.

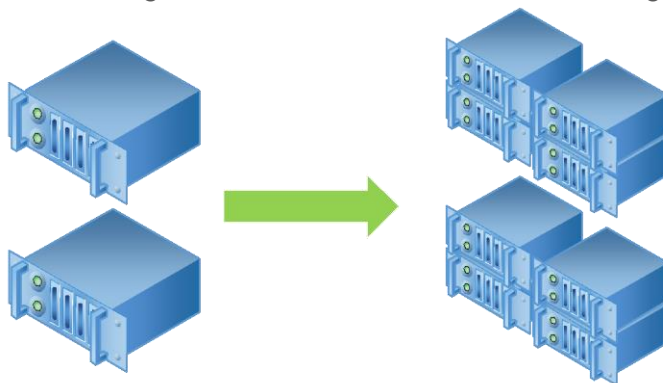
EHR & Billing Backup Summary

Task	Frequency
Local Virtual Machine mirror	5 minutes
Remote Virtual Machine mirror	15 minutes
Full Database backup	24 hours, most recent 8 days
Differential Database backup	15 minutes
Database backup to isolated device	24 hours, most recent 15 days
Document backup to cloud	24 hours
Billing System transaction backup	15 minutes
Billing System full database backup	Weekly
Billing System document backups	Continuous

Application Backups

1. Redundant, load balanced servers

The core application and supporting services are hosted on multiple servers. This prevents the EHR from becoming unavailable due to the failure of a single server.



2. Azure repositories

All application code and configuration is securely backed up to Microsoft's Azure cloud.



Disaster Recovery

1. Geographic disaster recovery planning

As a mission critical service, Patagonia Health has planned for geographic disasters by having infrastructure, applications and data mirrored to a cloud Datacenter in Iowa. The primary and disaster recovery data centers are therefore separated by hundreds of miles.

Both data centers are connected to the Internet backbone with redundant connections from independent service providers. The data centers have independent infrastructure (electric power, network, water etc.)

2. Backup and Recovery testing

Patagonia Health periodically performs restoration testing for both the local and remote backups. Any errors are corrected and staff is trained to manage the transition. The goal is to have a smooth transition with minimal down time. These mechanisms are in place to prevent data loss and provide continuity for our customers.