

Server Backup Services

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[Server Backup Services](#) (SBS) provide a comprehensive system for backing up and restoring almost any type of server over the State Government Network (SGN). SBS can backup and restore a single file, all files on disk or an entire server, whether physical or virtual. Agencies not using WaTech's Washington State Cloud virtual infrastructure can use this service to back up their own servers.

Veeam Backup and Replication uses the block cypher encryption algorithm. Encryption works at the source side. Veeam Backup and Replication reads virtual machine (VM) or file data, encodes data blocks, transfers them to the target side in the encrypted format and stores the data to a file in the backup repository or archives the data to tape. Data decryption is also performed on the source side: Veeam Backup and Replication transfers encrypted data back to the source side and decrypts it there.

SBS uses a variety of technologies to provide backup and restore services, archival and retrieval, storage management and disaster recovery. It can support both physical and virtual servers, running a Windows Operating System (OS) or Linux/Unix variants. The service can support servers that are co-located within the State Data Center or almost anywhere else in the state if they are accessible via the State Government Network.

Backup files are copied to three locations:

- On premises for seven days.
- On Quest Veeam Cloud Connect (VCC) storage for the customer's desired retention period.
- On Quest cloud immutable (air gapped) storage for 30 days where it cannot be modified.

Server Backup quick facts

Agencies, boards, and commissions using Server Backup	25
Total number of unique workloads	696
Virtual machines	378
Computer (via agent)	318
File Shares	10
Average first attempt success rate (last month)	99.77
All backups which fail on first attempt are automatically resubmitted and result in eventual success.	

Intended customers

Historically the Server Backup Services was intended primarily for agencies utilizing the Washington State Cloud. This service has been expanded to support any and all agencies on the SGN with their own hypervisor or physical servers. This service has the ability to quickly scale to meet agency needs. Soon this service will also be able to natively support Agency cloud workloads in Azure and AWS.

Helpful information

Service category

Cloud

Service availability

24/7/365

Planned maintenance

Performed as required during non-peak hours

Related services

- [Washington State Cloud](#)
- [Managed Server Support](#)
- [NetApp storage](#)
- [Firewall Services](#)
- [DNS Service](#)
- [VPN Service](#)
- [SGN](#)
- [Colocation Olympia](#)
- [Colocation Quincy](#)

How to request service

Submit a request for service through our [Customer Portal](#).

Service owner

Bill Moneer

Options available with this service

Customer agencies select the retention period of their choosing for the VCC storage (14, 30, 60 days, etc.) and the immutable storage is kept for 30 days.

Customer engagement

- Semi-annual customer Town Hall with all Computing Services teams providing updates and gathering customer feedback.
- Monthly Technology Management Council meeting and weekly CIO call.
- Monthly status meetings with Business Relationship Managers.
- Regular outreach to solicit feedback, provide updates and inform agencies on emerging projects, initiatives, and services.
- Requests for new consultations and modifications to existing applications.

Action plan

Current activity

- Adding Veeam SureBackup which will allow customers to verify the integrity of backups and successful restores through an automated process.
- Build out Veeam backup service in WaTech’s Azure environment to backup Azure compute to Azure storage with immutability.



One- to two-year goals

- WaTech uses a Veeam Cloud Connect (VCC) partner to store offsite and immutable backups in the cloud. While storage may be inexpensive, data streams and bandwidth pose additional costs to the agency. Veeam version 12 will be installed early 2023 and WaTech will conduct a POC with Amazon Web Service (AWS) to determine if a more cost-effective solution is available.
- Build out Veeam backup service in WaTech’s AWS environment to backup AWS compute to AWS storage with immutability.
- Explore designating this Server Backup service with an enterprise service designation for the cloud workloads in coordination with the Enterprise Cloud Computing program.

Three- to five-year goals

Continue to assess backup software and storage providers and work with customers to ensure products best meet the needs for Washington state.



Service review and fully loaded service budget projection

Revenue source

The service operates on a pay per use rate structure. Revenue received from this rate structure goes directly against the cost incurred to provide the service.

Net Income over time:

In 2019 one large agency left the Washington State Cloud to stand up their own VMware environment, and in 2020 one large agency stood up their own backup infrastructure. These events occurred while we were still using Dell Avamar as our backup software. The Server Backup rate was reduced from .50 cents per GB per month to .39 cents per GB per month, effective July 2021.

