

VTCloud® Backup Frequently Asked Questions

Contents:

Introduction	2
Features and Benefits	5
Security and Data Protection	7
Provisioning and Activation	8
Support and Maintenance	10
General Terms	13

Introduction

1. What is VTCloud® Backup?

VTCloud® Backup is a managed, enterprise class cloud-based data backup solution that protects an organization's critical information from loss due to catastrophic events, system failure or data corruption.

2. What can be backed up with VTCloud® Backup?

This solution provides reliable backups for virtual machines, physical servers, applications, desktops, and laptops. Tablets and smartphones are not included at this time.

3. How many devices can I backup?

There really is no practical limit. Any system (server, PC, laptop, etc.) with the Avamar agent installed can be backed up to our Data Center. The service is billed based on the space required to store your backups on our equipment. You can store anywhere from 100 GB to 100 TB of deduplicated data in Venture's VTCloud®.

4. What operating systems can I backup?

This solution works with 32-bit / 64-bit Microsoft Windows and many mainstream Linux versions, as well as Apple Mac operating systems.

5. I already have a premise backup system. Why would I need another?

Even if you are already backing up your data locally, what would happen if that location were wiped out by a disaster? Redundant, remote backups are the ideal way to make sure that your vital data is protected. Plus, if you're have a traditional tape-based backup system, VTCloud® Backup is a much more efficient and reliable disk-based solution.

6. What are the deployment options?

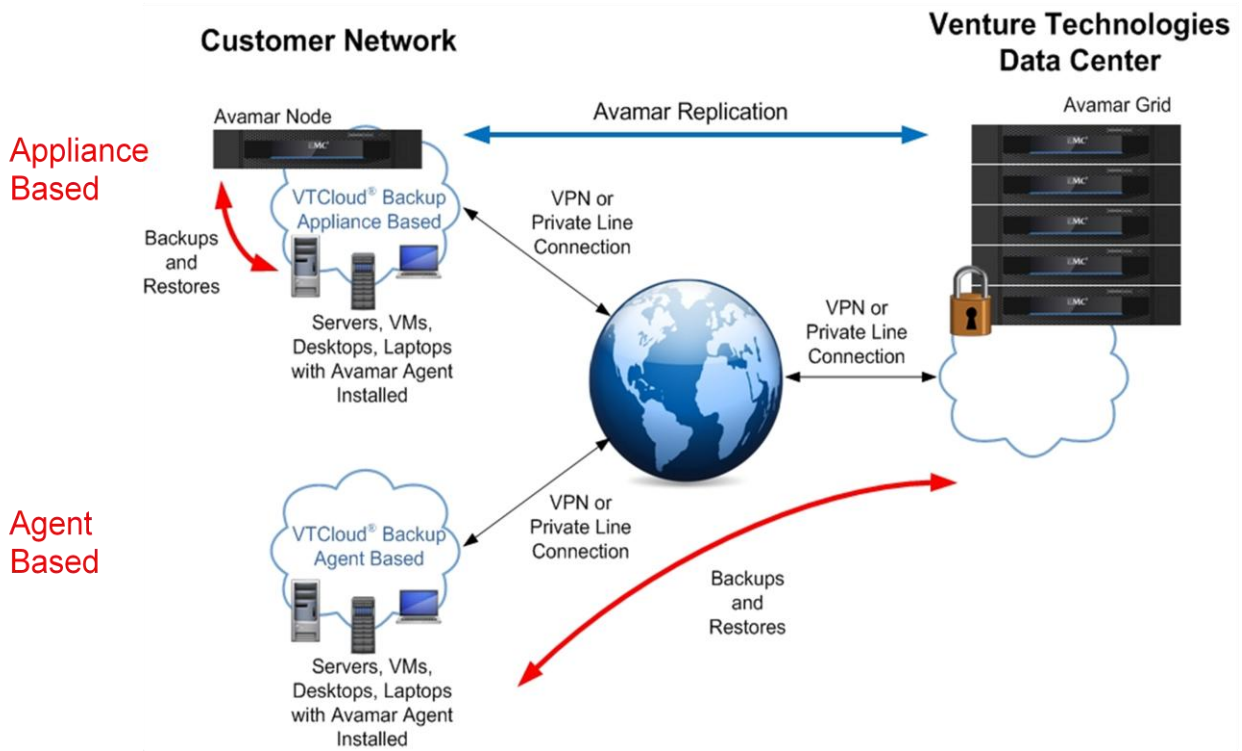
There are two standard deployment options available with VTCloud® Backup:

- ▶ **Appliance-Based** – a properly sized Avamar appliance is installed on customer's premises. Customer data is backed up to the local appliance, which is then replicated to the Avamar Grid (backup storage) housed in Venture's data center. Two options of the Appliance-Based Service are available:
 1. **Venture Fully Managed Service** - Venture owns and provides all management and administration of the on-site appliance including local backups, restores and replication to our Grid.
 2. **Joint Managed Service** - Customer purchases on-premise appliances and assumes all responsibility for all management and administration of local backups. Venture manages replication of the on-site appliance to our Grid.
- ▶ **Agent-Based** – An Avamar software agent is installed on any customer device (server, PC, laptop) targeted for backup, which triggers backup from the device to Venture's Avamar Grid.

A Venture Solution Architect will design the optimum solution based on the customer's environment. Both solutions backup customer data to the data storage environment (Avamar Grid) housed in Venture's secure data center(s).

Appliance-Based backup is required for customers with a large volume of data to be backed up (greater than 800GB). Appliance-Based models improve the performance of backup and restores by offering a local device to handle all communication with the customer's servers.

VTCloud® Backup Deployment Architecture



Features and Benefits

7. What is included in the Service?

Feature	Appliance-Based		Agent-Based
	Venture Managed	Joint Managed	
Customer Data is backed up daily to Venture's Data Center	X	X	X
Daily email notification of backup status	X	X	X
Solution design/sizing, turnkey installation and data seeding	X	X	X
Data is deduplicated prior to backup/replication	X	X	X
Users contact Venture's Help Desk to restore from the Grid	X	X	X
Use of software agents only for backup			X
Appliance(s) installed on customer premises	X	X	
Local appliance is replicated to Venture's Grid	X	X	
Self-service portal available for restores from local appliance		X	

8. Who manages backups and recovery?

Management of the solution by Venture is a key feature of the Service.

- **Agent-Based Service** - Venture provides comprehensive management and administration of the entire backup and restore process.
- **Venture Fully Managed Appliance-Based Service** - Venture provides all administration and management of backup and restores to and from a Venture-owned appliance installed at customer locations. Venture also provides management of replication and restoration of data to and from the Storage Grid housed in Venture's Data Center.
- **Joint Managed Appliance-Based Service** - Customer manages local the local backup and restore process to a customer-owned appliance. Venture manages replication from the on-site appliance to Venture's Storage Grid.

With all versions of VTCloud® Backup, restoring data backed up to Venture's Grid, housed in Venture's Data Center, is done by logging a request to Venture's Help Desk. Requests for file restores are assigned a high priority and handled by Venture's Level 2 Data Center engineers.

9. What is deduplication, and what are its benefits?

VTCloud[®] Backup utilizes data deduplication, or single instance storage, to reduce storage needs by identifying duplicate or redundant data. Only unique data is then stored on the storage media. This method uses significantly less network traffic than other solutions, providing short backup and recover times. Customers can also usually leverage existing LAN and WAN bandwidth for enterprise-wide and remote/branch office backup rather than having to upgrade to accommodate for remote backup.

10. Does this solution use fixed-length or variable-length deduplication?

Venture's solution uses variable-length data segments rather than fixed-length segments. With fixed-length deduplication, even small changes to a dataset (ex-inserting data into the beginning of a file) can change all subsequent fixed-length segments in a dataset. VTCloud[®] Backup solves this problem and dramatically reduces the amount of data sent and stored, while eliminating backup bottlenecks and reducing backup times.

11. Does VTCloud[®] Backup provide object level backup and restore?

Yes. Special Avamar Application Agents may be installed to provide the ability to backup and restore at a much more granular level. For example, the Microsoft Exchange agent allows restoration of specific mailboxes, messages and folders. Other Applications are as follows:

- EMC Avamar Client for IBM DB2
- EMC Avamar Client for Lotus Notes
- EMC Avamar Client for Microsoft Exchange Server
- EMC Avamar Client for Microsoft SharePoint
- EMC Avamar Client for Microsoft SQL Server
- EMC Avamar Client for Oracle
- EMC Avamar Client for SAP
- EMC Avamar Client for Sybase

For more information, see [Avamar Application Details](#).

Security and Data Protection

12. How often are backups of the data made?

Venture backs up all data once daily between 5:00 pm – 7:00 am CST.

13. How is the data protected?

Data backed up to Venture's Data Center is protected via the Advanced Encryption Standard (AES) adopted by the U.S. military. Data at rest uses the 128-bit CFB standard, while data in transit uses the 256-bit SHA.

In addition, Venture's storage environment is completely resilient and backed up for additional data protection. And the entire environment is housed in Venture's SOC 2 Type II Audited Data Center facility. For more see [Venture's Data Center](#).

14. Will any of my data be stored outside of the United States?

No. All customer data is backed up to Venture's Data Center located in Jackson, Mississippi or Venture's sister facility, operated by Level 3 Communications in Dallas, Texas.

Provisioning and Activation

15. What will customers need to activate this Service?

You will be required to have and maintain an encrypted virtual private network (VPN) connection to Venture Technologies with a minimum of a 1 Mbps (upload) Internet connection. If your network does not support VPN provisioning or adequate bandwidth, Venture can help! Please ask your Venture Account Manager for more information.

Alternatively, for large data volumes, customers may install private connectivity directly to Venture, typically either Metro-Ethernet or MPLS.

16. What is the process for designing the optimum VTCloud® Backup solution for my needs?

One of Venture's Technical Architects (TA) will use a variety of tools to design the optimum deployment model and configuration. The TA will use EMC planning and sizing tool to identify a number of factors necessary to design the most reliable, effective solution including deployment model, agents required, backup windows, storage capacity requirements and connectivity requirements.

17. How will the solution be deployed and activated?

Once fully executed contracts for the Service are received, Venture's Cloud Services Activation Team will be notified. A Service Ticket will be entered in our Professional Services Automation system (PSA) that will be used to assign and schedule resources and tasks, track progress and deliverables and manage the entire activation process.

Appliance-Based Service - A Venture storage engineer will perform on-site installation. These services include set up and configuration of the Avamar appliance and related self-service administration portal, installation of the Avamar agents and applicable applications on the backup targets (servers, PCs, laptops). Then, the engineer will setup the replication process between the on-premise appliance and the Avamar Grid housed in Venture's Data Center. Next, the entire solution will be tested to ensure all target data is being backed up to the local appliance and replicated to Venture's remote storage Grid. Finally, the engineer will provide knowledge transfer on operation and use of the self-service portal including the notifications generated from the backup process.

Agent-Based Service – In most cases, the agent based service can be installed remotely by Venture's Data Center engineers. The engineers will use remote tools to electronically "push" the agents and applications down to the customer targets designated for backup. Again, the solution will be tested and basic knowledge transfer of the content and use of the daily email notification will be performed.

18. How will my data be initially transferred (seeded) to Venture's Data Center?

Depending on the volume of data, cutoff timing and bandwidth available, Venture will either initially "seed" the customer's data to Venture's Data Center Grid via Avamar's data transfer tool. A Venture engineer, as part of the on-site implementation process, will

transfer the data to a mobile Venture appliance, then transport it to Venture's Data Center where the data will be transferred to our Grid. This will be determined as part of our pre-sales discovery and sizing process and incorporated in our Provisioning Statement of Work.

19. Can a customer have one or more on-site appliances and not subscribe to the VTCloud® Backup VTDC replication service?

No. On-site appliances are a supporting element in providing our comprehensive managed backup services. The onsite appliances must replicate back to Venture's data center(s). If a customer desires an EMC Avamar solution without replication, or with replication between two or more customer locations, Venture Technologies can provide and install this as a premise-based solution.

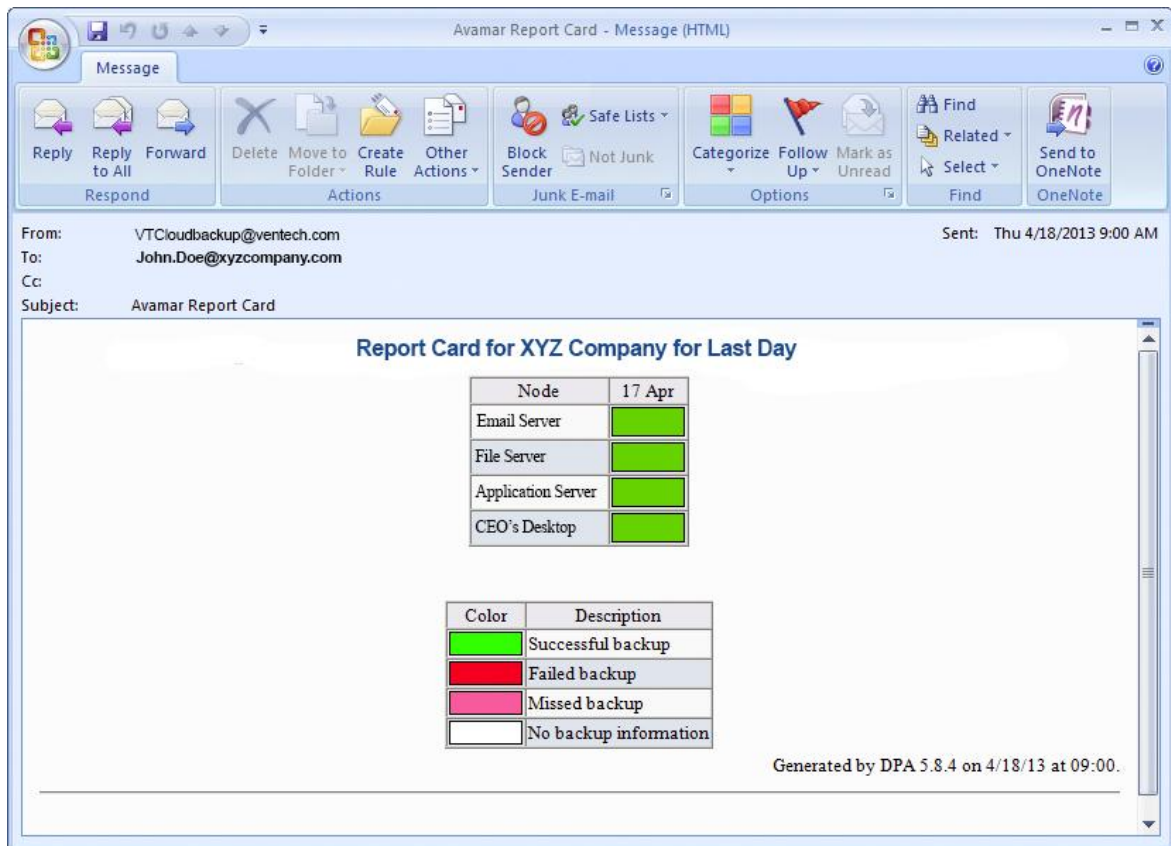
Support and Maintenance

20. What kind of support can I expect?

As is the case with all VTCloud® Services, VTCloud® Backup includes 24/7/365 support from our local Help Desk. Our support team is available by toll-free phone or email. Service resolution details are described in customer contracts.

21. How do I know if my data is being successfully backed up?

For both agent-based and Appliance-Based customers, a notification will be sent via email to designated customer contacts and Venture's data center staff that provides the results of the nightly backup. The notification will include an account of all targets backed up and any exceptions encountered during the backup process. Appliance-Based customers will also be notified of the results of the replication of your local appliance to Venture's Grid.



Avamar Report Card - Message (HTML)

Message

Reply Reply Forward
to All

Delete Move to Create Other
Folder Rule Actions

Block Safe Lists
Sender Not Junk

Categorize Follow Mark as
Up Unread

Find
Related
Select
Send to
OneNote

From: VTCloudbackup@ventech.com Sent: Thu 4/18/2013 9:00 AM
To: John.Doe@xyzcompany.com
Cc:
Subject: Avamar Report Card

Report Card for XYZ Company for Last Day

Node	17 Apr
Email Server	
File Server	
Application Server	
CEO's Desktop	

Color	Description
	Successful backup
	Failed backup
	Missed backup
	No backup information

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22. How will exceptions encountered during daily backups be handled?

For Venture Managed Appliance-Based customers and Agent-based customers, Venture's VTCloud® Backup engineers will receive the email notifications discussed in item 10 above. They will review the notifications for any anomalies or exceptions and will notify the customer contact as needed. For any exceptions that require additional

investigation, Venture will launch a case by entering a service ticket in our Professional Services Automation (PSA) tool, assign the appropriate resources and conduct further analysis, troubleshooting and remediation. The case will remain open until the root cause of the anomaly is identified and corrected to avoid future occurrence, as required.

23. What is the process for recovering a file?

Appliance Based		Agent Based
VT Managed	Joint Managed	
Customers contact Venture's 24/7/365 Help Desk to request data restore. A VTDC Engineer will contact you within 4 hours (based on priority of the situation) to discuss data required and initiate the restore process from their local appliance.	Customers perform their own restores using the on-site, web-based Avamar Administrator Tool (see next slide). Customers contact Venture's Help Desk for restoration from Venture's Grid (on-site appliance unavailable).	Customers contact Venture's 24/7/365 Help Desk to request data restore. A VTDC Engineer will contact you within 4 hours (based on priority) to discuss data required and initiate the restore process from our Grid.

24. What if my Venture-owned onsite appliance requires repair or maintenance?

Generally, the appliance is owned by Venture. Venture is responsible for any repairs or maintenance as a result of normal use. Hardware service is provided by EMC through Venture's contract with them. Customer is responsible for any damage or loss of the system due to catastrophic event, etc. Generally, this is covered by customer's general business or casualty insurance.

25. What happens if one of my target systems crashes?

The restoration of a complete system depends on your particular VTCloud® Backup Service. Venture will handle data restoration where Venture owns and manages the on-site appliance (Venture Managed Appliance-Based Service) or for Agent-Based customers. Customers will be responsible for data restoration when they own the local appliance (Joint Managed Service). **Note:** VTCloud® Backup is a data protection service and does not include reconstruction of any on-site systems and backup targets to an operational state and ready to receive files from customer's data backed up to Venture's Grid.

26. What is the recovery process if my entire organization were to be wiped out by a disaster?

Venture Technologies offers several options for restoring a VTCloud® Backup customer environment in the event of total system loss, including engaging our Professional Services Organization for assistance with the recovery process. Once replacement target systems have been deployed, Venture will assist with restoration of customer data from the storage Grid in our Data Center. Typically, this is done via remote data transfer via customer's connection to Venture's facility. However, for Appliance-Based customers, if the volume of data exceeds the practical limit for remote data transfer, Venture will restore customer's data from its Grid to a spare appliance and ship the appliance to the customer, on a temporary basis, for local recovery.

For a comprehensive Disaster Recovery solution, Venture recommends subscribing to our VTCloud® Recovery Service which provides rapid recovery from individual server loss or even complete loss of your primary systems. Please see your Venture Account Manager for more information.

General Terms

27. Is there a minimum backup size for this service?

This solution requires a minimum of 100 GB of deduplicated storage. A Venture Account Manager can discuss options for customers needing a smaller backup solution.

28. Does Venture's VTCloud® Backup require commitment for a specific term?

Venture's agent-based solution (without an onsite node) requires a minimum term of 12 months. Venture's appliance-based deployment model typically requires a 36-month agreement. See your Venture Account Manager for details.