

CenturyLink Service Guide

Data Protect Backup

This CenturyLink Service Guide (“SG”) sets forth a description of Data Protect Backup 1.0 (“Service”) offerings by CenturyLink, including technical details and additional requirements, if any. This SG is subject to and incorporated into the Agreement and the CenturyLink TS Service Exhibit including the Hosting Service Schedule between the parties. The specific details of the Service ordered by Customer will be set forth on the relevant Service Order. For avoidance of doubt, any references in the Agreement, Schedules, or Service Orders to SSG, shall mean SG.

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Service Description

1. Service Description:

Data Protect Backup (the "Service") is a Managed Hosting service that provides file backups for certain information or data that a Customer wants to protect and/or retain. The backups are stored to disk and optionally to tape for archiving within a CenturyLink managed environment that supports the Service. As part of the standard Service, CenturyLink provides the installation, configuration, administration, monitoring, maintenance and support for the Service components described in section 1.1. The Service is available for use with the following CenturyLink services: select Managed Hosting Services: Dedicated Cloud Compute, Intelligent Hosting, and Foundation Hosting and also available with certain data center services ("Colocation") as determined by CenturyLink. Customer chooses the amount of backup and pricing model that fits their business operation. The Service Level Agreement ("SLA") associated with this Service is the "Data Protect Backup SLA".

1.1. Service Components:

1.1.1. Basic Backup: CenturyLink performs Full Backups and Incremental Backups as part of the Service. Customer backups will be retained on local disk for a period of two (2) weeks. Backups that are older than two (2) weeks per the creation time stamp will expire and will be purged. At a minimum, a Full Backup is executed once per week. A customer may elect to purchase the DOV option in which case the amount of backup stored on disk accumulates based on the Customer requested retention period and any copies retained with DOV (defined in section 1.1.6). Backups, for the purposes of this Service means Customer selected information or data that has been backed up and is in storage. The amount of stored data accumulates per the defined retention periods and DOV settings. The Service is available for most server operating systems ("OS") as detailed in Table 1.0 Supported Operating Systems. For the avoidance of doubt, the Service is not a Disaster Recovery Service and does not support backup of virtual machines, image based backups, virtual machine disks (VMDKs) or System State recovery.

Table 1.0 Supported Operating Environment

The following table details the operating systems that are supported with the Service. For those operating systems that are not represented in the table, the deduplication feature may not be available for use and thus could result in higher data usage.

Operating System	Architecture	Master Server Deduplication	Client Deduplication
Windows 2008	X86	NO	YES
Windows 2008 R2	X64	NO	YES
Windows 2012	X64	NO	YES
Windows 2012 R2	X64	NO	YES
Windows 2016	X64	NO	YES
RedHat 5.x	X64	NO	YES
RedHat 6.x	X64	NO	YES
RedHat 7.x	X64	NO	YES
Suse SLES 11	X64	NO	YES
Suse SLES 12	X64	NO	YES
Solaris 10	SPARC	NO	YES
Solaris 11	SPARC	NO	YES
HPUX 11.31	IA-64	YES	YES
AIX 6.1	Power PC	YES	YES
AIX 7.1	Power PC	YES	YES

- 1.1.2. Deduplication:** The Service utilizes deduplication to reduce the overall amount of backup being stored on disk. Deduplication will be performed on the host for most OS. Table 1.0 Supported Operating Systems provides additional information on this.
- 1.1.3. Encryption:** CenturyLink enables encryption as part of the standard Service. See Table 2.0 Encryption Policies for additional information.

Table 2.0 Encryption Policies

Encryption Policies
Servers compatible with Veritas NetBackup 7.x or higher will perform encryption within the server and transfer encrypted data to the backup infrastructure server
Servers not compatible with Veritas NetBackup 7.x or higher will perform encryption at the backup infrastructure server only
Deduplication enabled server – The Blowfish encryption algorithm (key length 128) will be utilized. This encryption will occur within the server.
Deduplication disabled server – The Blowfish encryption algorithm will be utilized for those servers that are not utilizing the deduplication feature of the product and will occur on the backup infrastructure server
AES-128 and AES-256 encryption algorithms are available. However, deduplication rates will be negatively impacted with the use of these algorithms, resulting in more backups thus higher charges.
Data stored on tape – For data chosen to be stored on tape, Data Protect Backup utilizes the AES-256 encryption algorithm.

- 1.1.4. Portal:** Customers may set up and manage the servers that are selected for backup by accessing the applicable Portal (see Definitions).
- 1.1.5. Restore:** Restores of Customer data can be performed from unexpired backups stored at the local CenturyLink managed environment. Restores are performed from Full Backups and subsequent Incremental Backups only. For example, if the oldest unexpired backup is a Full Backup, then a Restore is possible to that date. If the oldest unexpired backup is an Incremental Backup, then a Restore is not possible to that date; however, a Restore up to the most recent Full Backup can be performed.
- 1.1.6. Infrastructure:** The Service is hosted in a CenturyLink managed environment with secured access and redundant power.

1.2. Pricing Model:

1.2.1 Subscription Pricing: Pricing for the Service is based on the amount of data a customer backs up at a subscription level chosen by Customer and set forth in a Service Order which designates the amount of monthly usage. Subscriptions are available from 0 to 100 TBs with two pricing options Customer may choose from:

- 1) A subscription of 0 means that Customer will be charged for actual usage incurred on a monthly basis.
- 2) A subscription of greater than 0 means Customer commits to a defined usage amount and is charged a monthly recurring charge. Additional charges will apply if actual usage exceeds the subscription level. Usage pricing is based on a subscription tier. The calculation is as follows:

((average amount of gigabytes of backups per day over a calendar month) – subscription commitment level) X tiered rate) = overage charge.

Customer's electing a subscription model greater than 0 may receive a discounted rate and can apply the subscription over multiple sites. Please contact your CenturyLink sales representative for additional details.

1.2.2 Additional Considerations:

- Please note that DOV does not carry an additional cost to enable the feature if chosen but will increase the amount of data consumed, resulting in additional backup consumption. For example, if Customer backs up 500GB of data and chooses the DOV option the total consumption is 1TB of storage. That is, 500GB of data would be stored locally on disk and 500GB of data would be stored on disk remotely at the DOV location.
- Offsite Tape Archiving is an option with additional cost if chosen. Cost is calculated based on the amount of backups transferred to tape and the retention period of the aforementioned tape media. Note that backups will go to disk first, then to tape. CenturyLink does not make exceptions.
- Hot Backup Agents carry additional charges per Agent
- Offsite Dedicated Tape Archive carries additional charges

1.3. Installation:

CenturyLink will provide the installation tasks marked with an “X” in the CenturyLink column in Table 3.0 Roles and Responsibilities.

- 1.3.1. Installation Support: CenturyLink will provide support for installation, content migration and Customer validation. The CenturyLink Service Center provides 24x7 monitoring and management support.

1.4. Configuration and Administration:

CenturyLink will provide the configuration and administration tasks marked with an “X” in the CenturyLink column in Table 3.0 Roles and Responsibilities.

- 1.4.1. Backup Frequency: Once backups are configured and active, the backups automatically commence on a daily basis. Backups are retained for a default of two (2) weeks. Once backups are disabled, the backed up data will remain in storage according to the retention period selected by Customer but in accordance with the retention policy detailed in this SG.
- 1.4.2. Backup Options: Customers can access the Portal for setup and management of the servers that should be scheduled for back up. Options within the Portal include turn On/Off backups, day of week for Full Backup, DOV retention periods, and long term archiving to tape, but only if the Customer purchases the commercial offering for tape archiving separately.
- 1.4.3. Backup Instance Control: Customers with the appropriate authorizations can manage the Services within the Portal.
- 1.4.4. Change Management: CenturyLink may modify the managed applications, systems, network and facilities used to provide the Service. Such modifications are subject to CenturyLink’s change management process which includes risk assessment, completed test procedure, metrics for measuring progress, and back out procedures. The change management process will be followed prior to scheduling and implementation of such modifications.

1.5. Monitoring:

CenturyLink will provide the monitoring tasks marked with an “X” in the CenturyLink column in Table 3.0 Roles and Responsibilities.

- 1.3.1 **Portal:** Customer may monitor the Service via the Portal. The Portal may also be used for assistance with reporting including identification of backup servers, successful backups, and usage.
- 1.3.2 **Notification:** CenturyLink will retain primary notification and resolution responsibilities for all automated environment alerts in the production environment.

1.6. Maintenance and Support:

CenturyLink will provide the maintenance and support tasks marked with an “X” in the CenturyLink column in Table 3.0 Roles and Responsibilities.

- 1.6.1 **Maintenance Windows:** All times listed under the Scheduled Maintenance Windows are local times and subject to change. CenturyLink will use commercially reasonable efforts to perform routine maintenance only during the Saturday or Sunday defined maintenance windows. See Definitions for additional information.

2. Customer Responsibilities:

Customer is responsible for all tasks marked with an “X” in the Customer column in Table 3.0 Roles and Responsibilities. Customer acknowledges and agrees that its failure to perform its obligations set forth in Table 3.0 may result in CenturyLink’s inability to perform the Services and CenturyLink shall not be liable for any failure to perform in the event of Customer’s failure. Upon termination for any reason, you will not have further access to your Data Protect Backup Service and your data, including data with archive retention policies that extend beyond the termination date. Customer is responsible for downloading all data they wish to have in their possession prior to Service termination.

2.1. Data Protect Backup for Managed Hosting Services:

2.1.1. Third Party Software: Customer agrees to allow CenturyLink to install necessary software to enable backup operations, monitoring and reporting. Customer agrees to use any third party software strictly in accordance with all applicable licensing terms and conditions. CenturyLink makes no representations or warranties whatsoever with regard to such third party software.

2.2. Data Protect Backup for Managed Hosting Services and for applicable Colocation services:

2.2.1. Licensing and Third Party Terms:

If any third party software, including any corresponding documentation, is provided to Customer by CenturyLink in connection with the Service, Customer agrees to be bound by any additional licensing terms and conditions applicable to such third party software and that it will use such third party software strictly in accordance with such terms and conditions. CenturyLink makes no representations or warranties whatsoever with regard to such third party software.

For Veritas Backup, Customer must agree to the Veritas End User Agreement terms located at: <https://www.veritas.com/company/legal/license-agreements>

2.2.2. Customer Contact: Designate and maintain a Customer Contact during the Service Term (including current contact information). “Customer Contact” means a technical point of contact available 24x7 with sufficient knowledge, authority and access to address configuration issues, event notifications, system or infrastructure modifications and authentication of applicable CenturyLink systems.

2.2.3. Data Restores: Restores are initiated by Customer via a ticket, or by contacting the Customer Help Desk. Restores are performed with the assistance of the Backup Operations Team. Although backups are retained for defined retention schedules, (i.e. 2, 5, 13 weeks) this does not guarantee a Restore can be performed to all days in that retention schedule based on the frequency of the Full Backup and the expiration date within the retention period.

2.2.4. Portal Access: Customer is solely and exclusively responsible for password and user access level administration related to the Portal and any activity therein.

2.2.5. Change Notification: Customer agrees to notify CenturyLink of any changes in Customer hardware, including any system configuration changes or any hardware or software upgrades, which may affect the Services provided. Customer’s failure to notify CenturyLink of changes will affect CenturyLink’s ability to perform the Services in which case no SLA Credits will apply.

2.2.6. Acknowledgements: Customer acknowledges and agrees that:

2.2.6.1. All tape media used in connection with the Services are subject to malfunction or degradation that increases over time and CenturyLink has no responsibility whatsoever regarding any such media malfunctions and their potential impact on the Services.

2.2.6.2. The Service will backup and/or vault data in the form it is received from Customer and CenturyLink has no responsibility whatsoever regarding its accuracy or integrity.

2.3. Data Protect Backup for applicable Colocation:

Customer’s failure to provide the following items will effect CenturyLink’s ability to perform the Services in which case no SLA Credits shall apply.

2.3.1. Hardware Purchase: Customer is responsible for obtaining, deploying, upgrading and maintaining all required hardware, including an Ethernet card.

2.3.2. Dedicated Switch: Customer must provide a switch dedicated and compatible VLAN to the Service. CenturyLink provides configuration guidelines for the switch, and Customer is responsible for installation and ongoing management of the switch.

2.3.3. Operating Environment: Customer is responsible for deploying and maintaining the environment as described in Table 1.0 Supported Environment.

2.3.4. Third Party Software: Customer will install the necessary software to enable backup operations, monitoring and reporting, and Customer is responsible for all required upgrades and maintenance of

such software, Customer agrees to use any third party software strictly in accordance with all applicable licensing terms and conditions. CenturyLink makes no representations or warranties whatsoever with regard to such third party software.

- 2.3.5. Change Notification:** Customer agrees to notify CenturyLink of any changes in Customer hardware, including any system configuration changes or any hardware or software upgrades, which may affect the Services provided. Any outages or failures directly caused by Customer's failure to notify CenturyLink of changes will effect CenturyLink's ability to perform the Services in which case no SLA Credits shall apply.

2.4. Customer Responsibilities for all Data Protect Backup Services

- 2.4.1 Retention Policies:** Any retention period selected by Customer is a policy that Customer may assign to the particular information only and shall not be construed as a contractually binding retention period for CenturyLink. If the retention period selected by Customer extends beyond the Customer's Service Term or if Customer or CenturyLink terminate the Services prior to expiration of the Service Term, Customer acknowledges that CenturyLink has no further obligation to back up and store any Customer metrics or data after Agreement expiration or termination (notwithstanding any retention period selected by Customer) and CenturyLink will automatically delete all logs, including backups. Customer acknowledges and consents that it is solely Customer's responsibility to make copies of or obtain the logs and any other Customer data prior to expiration or termination of the Agreement.
- 2.4.2 Termination:** Upon the effective date of termination for any reason, Customer will have no further access to the Data Protect Backup Service and their data, including data with archive retention policies that extend beyond the termination date.
- 2.4.3 SLA:** CenturyLink's SLA only applies to the respective vendors' supported configurations at the time SLA support requests are triggered. If any configuration, version, system or third party software is identified as "unsupported" by a vendor, CenturyLink's SLA (including availability of Service Credits) will no longer apply and any support by CenturyLink will be reasonable efforts only. In addition, and at CenturyLink's reasonable discretion: 1) Customer may be required to purchase vendor supported upgrades at an additional cost to allow CenturyLink to continue to provide the Services or; (2) CenturyLink may elect to charge the Customer for any support or additional tasks/work incurred resulting from Customers' continued use of an unsupported configuration. Customer acknowledges and agrees that it is solely responsible for selecting and ensuring its software and systems are up to date and supportable. Customer's failure to do so may result in CenturyLink's inability to provide the Services and CenturyLink shall have no liability therefrom.
- 2.4.4 Data Transfer Consent:** Customer consents to CenturyLink's and its affiliates' or subcontractors' use and transfer to the United States, or other countries, data or information (including business contact information such as names, phone numbers, addresses and/or email addresses) of the customer for the sole purpose of: (i) providing and managing the Services; (ii) fulfilling its obligations under the Agreement; and (iii) complying with applicable laws. Customer represents that it will ensure that all information provided to CenturyLink is accurate at all times and that any business contact has consented to CenturyLink's processing of such information for the purposes identified herein.
- 2.4.5 Data Access:** Customer consents to CenturyLink collecting and compiling system and operational metrics to determine trends and improve service capabilities. CenturyLink may associate this data with similar data of other Customers so long as such data is merged in a manner that will not in any way reveal the data as being attributable to any specific Customer. Customer acknowledges CenturyLink's access to Customer data is generally limited to machine/system generated information and/or metrics, however if required as part of CenturyLink's obligation to provide the Service, or requests by Customer, CenturyLink may have access to Customer data, including personal information.

Table 3.0 Roles and Responsibilities

Activity	Task	CenturyLink	Customer
Installation	Perform set-up and implementation based on the requirements provided by Customer	X	
	Provide all required information requested during the Service set-up consultation		X
	Install and configure the CenturyLink infrastructure	X	
	Install licensed software agent on managed OS CenturyLink provided servers	X	
	Install licensed software agent on applicable Colocation servers or onto unmanaged OS, CenturyLink provided servers		X
	Make required adjustments to management devices and declare Service fully operational	X	
Configuration	Configure the standard backup templates via the Portal interface.		X
	Configure the standard backup templates via the Portal interface if Customer requests CenturyLink to perform this	X	
	Turn On/Off backups via Portal interface		X
	Turn On/Off backups via the Portal if Customer requests CenturyLink to perform this for Managed Hosting Services and for applicable Colocation services	X	
	Determine backup frequency timeframes		X
	Provide list of applicable Colocation server names to CenturyLink for populating into database to allow such servers to display in the Portal for configuring backup templates		X
	Populate list of Customers applicable Colocationservers into database to allow such servers to display in the Portal for configuring backup templates	X	
	Establish backup policy and determine the appropriate response procedure		X
	Answer Customer's questions regarding the Service	X	
	Perform Full and Incremental Backups	X	

Administration	Determine retention period for DOV via the Portal		X
	Enable encryption	X	
	Choose backup options and schedule frequency		X
	Utilize Portal capabilities to define user privileges, view, monitor, backup instances, DOV, backup scheduling		X
Monitoring	Retain primary notification and resolution responsibilities for all automated environment alerts	X	
	Monitor the CenturyLink infrastructure used to provide the Service	X	
	Request changes by contacting the CenturyLink Client Service Center at 1-888-638-6771		X
Maintenance and Support	Provide 24/7 support for Service problem resolution and Customer inquiries are included	X	
	Ensure that all Customer permissions of any kind needed for the delivery of the Service are in place at all times		X
	Ensure that all Customer permissions of any kind needed for the delivery of the Service are in place at all times		X

3. Additional Services:

At Customer's option and expense, Customer can purchase the following additional services for an additional fee. These additional services are available only if Customer has purchased the Base Backup Service as detailed in Section 1.1, and additional terms and conditions may apply. Contact a CenturyLink sales representative for additional information.

- 3.1. **Offsite Tape Archive:** Tape Archiving provides long term shared tape-based archiving of Customer data tape on a Customer-chosen frequency (weekly or monthly). Customer data will be archived to tape at the CenturyLink DOV location and transferred to a long-term archive service for a Customer-chosen period of twelve (12), thirty-six (36), or eighty-four (84) months. If Customer requires long-term retention of data utilizing the Tape Archival, Customer must also utilize DOV as the tape operations and facilities are centralized to the DOV locations. For locations without DOV, data stored on disk in the local data center may be sent to long-term tape archival from the local disk. Long-term storage may include storage utilizing qualified third party vendors who specialize in the storage of media. Price is calculated based on the amount of backups transferred to tape, the retention period of the tape media and whether Shared (standard) or Dedicated Tape is selected by Customer. Note that backups will go to local disk, then DOV disk and, then to tape. CenturyLink does not make exceptions. Data stored on tape is not de-duplicated or compressed..
- 3.2. **Hot Backup:** Hot Backup agents are available for Oracle, DB2, SQL Server, MS Exchange and SAP (UNIX & Windows).
- 3.3. **Offsite Dedicated Tape Archive:** Similar to the Offsite Tape Archive offering but uses tapes dedicated to a single Customer. Data stored on tape is not de-duplicated or compressed.
- 3.4. **Additional Ports/VLANs:** Any Ports and VLANs in addition to those included in the standard CenturyLink design shall be subject to incremental charges as set forth in the relevant Service Order. Any Port or VLAN requested by Customer after the initial installation of the Service shall also be subject to additional, incremental charges.
- 3.5. **Restore:** Restores can be performed from unexpired backups stored at the DOV data center, or on tape.

Restores are performed from Full Backups and subsequent Incremental Backups only. For example, if the oldest unexpired backup is a Full Backup, then a Restore is possible to that date. If the oldest unexpired backup is an Incremental Backup, then a Restore is not possible to that date; however, a Restore up to the most recent Full Backup can be performed. Certain Restores may be subject to additional charges.

- 3.6. **Digital Offsite Vaulting (“DOV”)**: DOV is an option of the standard Service offering that includes creating a copy of the backup, transferring the copy via an existing, secure, dedicated CenturyLink provided network connection between the data centers (data transmission for this feature utilizes Secure Socket Layer (“SSL”)), and retaining the backup copies on disk at the DOV site for retention periods of: (i) two (2) weeks, five (5) weeks, or thirteen (13) weeks for use with Managed Hosting and applicable Colocation services. DOV retention periods can be managed via the Portal.
- 3.7. **Long Term Offsite Archive**: The Service offers secure, long term (meaning longer than the maximum 13 weeks with DOV), offsite archiving of Customer’s critical data for various business reasons. Offsite Tape Archive and Offsite Dedicated Tape Archive are available for an additional charge. Refer to section 3.1 Tape Archiving.

4. Exclusions and Customizations to the Service:

Customers who purchase the Service for use with a non-standard CenturyLink service (e.g. non-standard CenturyLink managed compute environment) or customize Service for use (e.g. modify a CenturyLink managed OS) are subject to limitations of the Service including deficiencies of: (i) delivery and performance of a scheduled backup or Restore; (ii) provisioning automation; (iii) visibility in a Portal; and (iv) reporting. Customizations to the Service are subject to additional terms, conditions, SLAs, and charges which may be further described in a Service Order or Statement of Work (SOW). For Shared tapes, if there is useful life on the tape after the vaulting period has lapsed CenturyLink returns the tape to the pool to be used again in the Shared environment. CenturyLink does not run any specific process to forcibly erase data. When a data retention period expires or subject to the retention policies herein, the data is removed from our catalog and the storage is marked as re-usable for other backups. The tapes are moved to the scratch pool. Once in the scratch pool and in a tape library, they may be allocated for re-use and overwritten. CenturyLink cannot access any prior images once a new header is overwritten to the beginning of the tape. For Dedicated tapes, when an image expires, the image is removed from our catalog, the storage is marked as re-usable for other backups. They are returned to the shared scratch pool, not a customer specific pool. Services for Dedicated Tape destruction can be purchased separately but require additional terms and a Statement of Work.

Definitions

Backup Client: A system that is being backed up.

Backup Window: Scheduled time period during which backups should be started.

Differential Incremental Backup: Backup to tape of all data files that have changed since the last backup (Full Backup or Incremental Backup). This may also be referred to as “Incremental Backup”.

Digital Offsite Vaulting: The transfer of backup images from one data center to a separate data center.

Digital Offsite Vaulting Target Site: Defines the secondary location where the originating backup is transferred and stored on disk for a predefined period of time.

Full Backup: Complete save of Customer chosen data files on a given Backup Client, not including operating system software.

Maintenance Windows: A period of time designated in advance by CenturyLink, during which preventive maintenance that could cause disruption of service may be performed. Current Scheduled Maintenance windows are:

- Americas: Monday through Thursday 10:00AM-4:00PM local time at the data center providing backup service
- EMEA: Monday through Thursday 10:00AM to 4:00PM local time
- APAC: Monday through Thursday 10:00AM to 4:00PM local time
- Japan: Monday through Thursday 10:00AM to 4:00PM local time

Portal: Portal is a user interface providing access to monitor the Service. The Portal may also be used for assistance with reporting including identification of backup servers, successful backups, and usage.

Restore: Copying backup files from storage to the original source or hard disk to return data to its original condition.

Secure Sockets Layers (SSL): Secure Sockets Layers are designed to provide communication security over the Internet.

Tape Archive: Longer term retention of data on tape in an offline storage facility. Long-term media storage utilizes CenturyLink authorized vendors.