Product Definition:

Backup-as-a-Service (BaaS)

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1   ABOUT THIS DOCUMENT

Product definition documents are designed to define the features, pricing and scope of a product that forms part of Bendigo Telco's product catalogue. This document defines Bendigo Telco's Backup-as-a-Service (BaaS) offering.

2 PRODUCT OVERVIEW

2.1 Product Features

Bendigo Telco's BaaS product provides the following features for its customers.

- Self Service Portal – Customers have access to a portal that allows them to:
    - See their backup usage
    - Restore backups
    - See their backup schedule
    - See their backup success/failure rate
    - Access reporting functions
- Automation – Backups can run automatically according to schedule without human intervention
- Optional 24/7 help desk support
- Security & Encryption – Backups are encrypted during data transfer and stored in our enterprise-grade data centre
- Network – Bundled network access can be purchased as part of a backup solution
- Consulting and Design – Tailored backup solution for businesses designed by industry professionals
- Industry leading Service Level Agreements
- Pay-as-you-go consumption based (per GB) pricing model means that you only have to pay for what you use

2.2 Product Benefits

Bendigo Telco's BaaS product offers the below benefits to customers.

- Reduce risk by having data backed up in a secure data centres. Sleep easy at night knowing that your data will always be safe.
- Reduce operational overhead by automating backups, freeing up personnel to focus on business-critical activities.
- The highly scalable platform allows for expansion or contraction of backup requirements, removing the need to "over purchase" on-site backup infrastructure based on business growth expectations.
- Access and restore backups on demand via an online portal, allowing users to get back to work faster
- Automated Monitoring and Reporting allows you to see how your backups are performing without the need for human intervention.

3   PRODUCT DETAILS

3.1 Product Options

Bendigo Telco BaaS consists of 3 options.

Onsite Direct Backup

What is it?

Onsite Direct Backup uses a backup agent installed on the customer's equipment that sends data to Bendigo Telco's hosted backup platform.
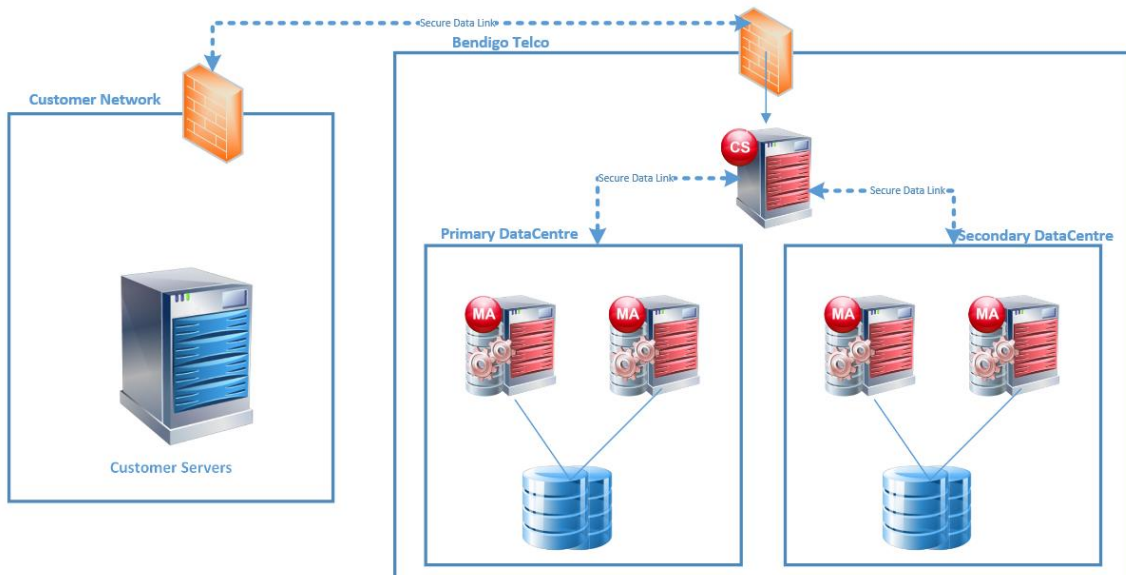
When is it used?

Onsite Direct Backup is used in situations where a customer has data at their premises or in a data centre that needs to be backed up and their connection/requirements are such that they do not require any Bendigo Telco equipment on site.

Onsite Replication Backup

What is it?

Onsite Replication Backup utilises a physical server (media agent) on the customers premise that takes the onsite backup and replicates to Bendigo Telco's hosted backup platform.

When is it used?

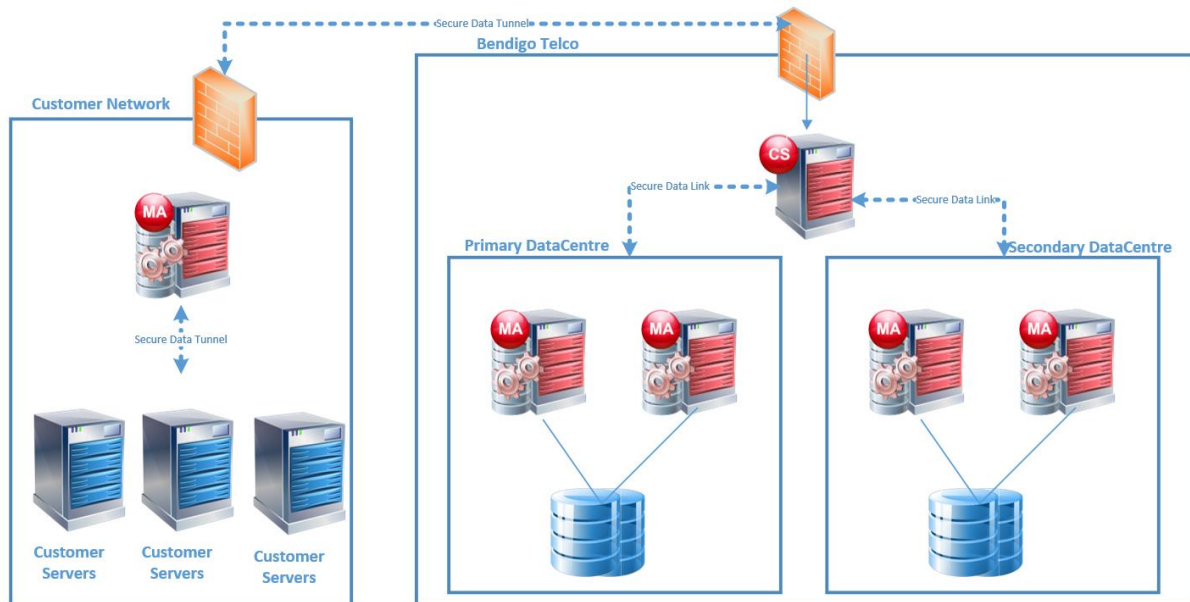Onsite Replication Backup is used in situations where customers have a requirement for on-premise copies of their backup, or when their On-Premise data has a Recovery Point Objective (RPO) / Recovery Time Objective (RTO) requirement that the Onsite Direct Backup option cannot meet.

For Example:

- Where customers have high volumes of data and high data change rates
- A customer has a compliance obligation that requires them to have on-site backups

Hosted Backup

What is it?

Hosted Backup is Bendigo Telco's backup solution for its hosted compute products such as Virtual Servers and Dedicated blade services.

When is it used?

Hosted Backup is used in conjunction with Bendigo Telco's hosted compute products.

3.2 Supported Operating Systems and Applications

This section defines the operating systems and applications that are supported by Bendigo Telco's BaaS product.

Virtualization

Bendigo Telco's BaaS product supports the following Virtualisation platforms:

- Microsoft Hyper-V (Not available on hosted)
- VMWare vCenter

Databases

Bendigo Telco's BaaS product supports the following database platforms:

- Microsoft SQL
- MySQL

Applications

Bendigo Telco's BaaS product supports the following applications:

- Microsoft Exchange Server
- Microsoft SharePoint Server
- Windows Active Directory

File Systems

Bendigo Telco's BaaS product supports the following file systems:

- Windows File System
- Unix/Linux File System
- NAS

Other Systems and Platforms

Other systems and platforms may be supported on request. Please contact your Bendigo Telco account manager to request support for specific systems or platforms.

3.3 CommVault Web Console

Overview

Customers have access to the CommVault Web Console that allows them to:

- See their backup usage
- Restore backups - In-Place and Out of Place
- See and modify the scheduled time for backups
- See their backup success and failure rate
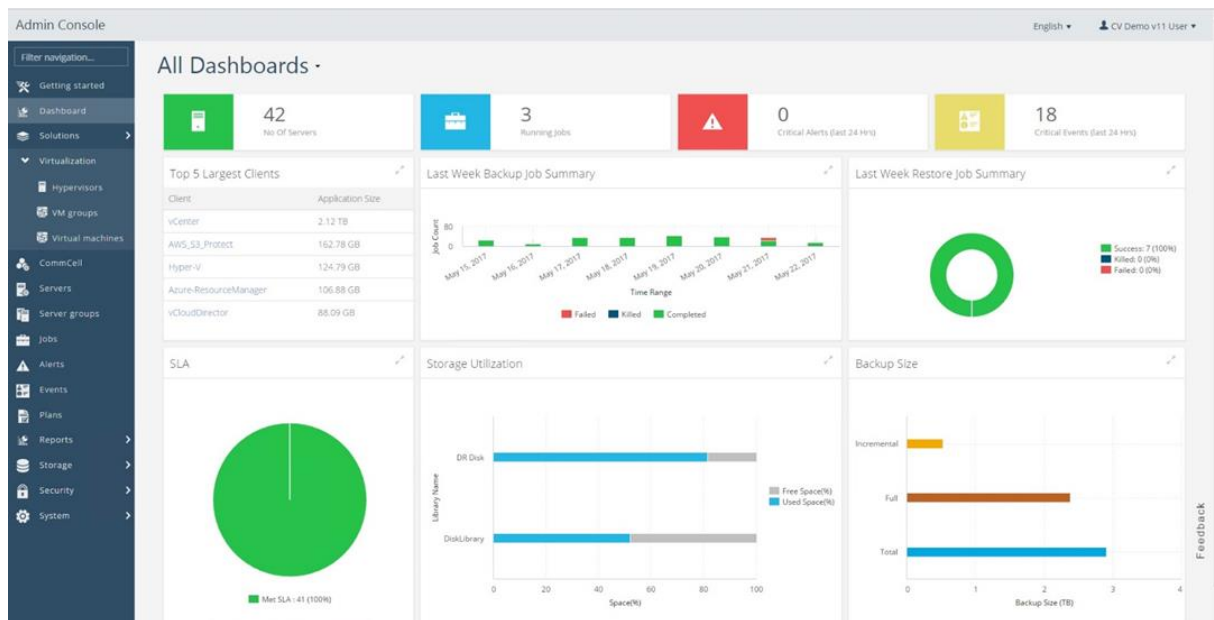
Web Console Functionality

The following actions can be performed via the CommVault Web Console.

- Remove a server from BaaS
- Add Client Feature to Server
- Remove Client Feature from Server
- Remove Restore-Only Server
- Restore File in-situ
- Restore File to a separate location
- Restore Database in-situ
- Manually start backup
- Client CommVault version needs to be updated to new Service Pack
- Client CommVault version needs to be updated to a new version
- Run reports

Other Actions

The following actions can be requested via a Service Request either over the phone or via Customer Service Desk:

- Add Server to BaaS
- Add Restore-Only Server
- Convert Standard Server to Restore-Only Server
- Convert Restore-Only Server to Standard Server
- Restore Database out of place
- Restore Database as new Database
- Restore Virtual Machine out-of-place (This requires additional checks around available resources compute resources)
- Restore Active Directory Object in-place
- Restore Mailbox Item in place
- Restore Mailbox Item out of place
- Restore Application in place
- Restore Application out of place
- Restore Data from Tape Copy
- Add user to Customer's BaaS
- Remove User from Customer's BaaS
- Restore Virtual Machine in Place
- Restore Virtual Machine Out Of Place
- Alter Retention Period for Individual Server
- Alter Retention Period for Individual Backup Client (File, SQL, etc)
- Alter Retention Period for entire Customer
- Change Backup Start Time
- Decrease Backup Schedule (Silver>Gold, Gold>Platinum, etc)
- Increase Backup Schedule (Gold>Silver, Platinum>Gold, etc)
- Restore data to external media (eg USB)

Accessing the Portal

Portal Console: https://cvweb.bendigotelco.net.au/adminconsole

3.4 Scheduling and Retention

Scheduling

Scheduling refers to how often backups are performed. Bendigo Telco BaaS offers three scheduling options.

1. Daily (After Business Hours)
2. Hourly
3. Semi-hourly (Every 30 minutes)

Retention

Retention refers to the length of time that backups are retained in Bendigo Telco's systems. Bendigo Telco offers 4 retention schemes.

- 1 Month (included)
- 1 Year
- 3 Year
- 7 Year

Long-Term Retention

For backups that are stored in excess of one month, Bendigo Telco retains the last full backup for each calendar month.

Daily Backup Schedule Time

By default, daily backups run at 9:00 pm. Customers may request that backups run at an alternative time anywhere between 7:00 pm and 12:00 am.

3.5 Support Service Desk

Support Hours

Bendigo Telco provides Service Desk support as part of its product. Support is offered during business hours (8:00 am to 6:00 pm Monday to Friday, excluding public holidays). Customers can purchase 24/7 Support for an additional $90 per month.

Support Scope

In Scope

The Bendigo Telco Service Desk will perform the following functions for customers.

- Perform advanced restores
    - In-Place Restores
    - Tape Restores
- Troubleshoot client backup issues

- Assist with installation of backup agents
- The configuration of Backup Agents

Out of Scope

The following functions are out of scope:

- On-site backup support
- Third party hardware support for media agents
- Restoration to External Media

3.6 Security & Encryption

Backups are encrypted during data transfer and are stored in our enterprise-grade data centre.

With the Bendigo, Telco Backup-as-a-Service environment data is obfuscated and stored in a range of ways such that no complete data is available from the system. Stream data from the client arrives by encrypted tunnel, which is then deduplicated, chunked, and indexed. All these things must be recombined with the BaaS unique job data in order for a restoration to be browsed and restored.

Bendigo Telco's Backup as a Service product's Encryption uses symmetric cryptography, and so the need for a certificate or certificate authority is not present. We generate a key for every stream of data that is written. Encryption keys are generated using the CTR_DRBG random number generator. Various random OS-Supplied data is used to provide a dynamic seed for the random number generator. Random 128-bit or 256-bit data encryption keys for every data chunk/archive file and initial vectors for CBC chaining are used during data encryption. Encryption keys are securely encrypted using the AES Key Wrap Specification and stored in the database with CSC32 embedded.

3.7 System Requirements

The customer's server infrastructure must comply with the below in order to use the BaaS product.

- An agent must have at least 1GB of free space in order for backups to run
- Supported Operating Systems
  - Windows Server 2003 or newer
  - Red Hat and variants 5.x or newer
- Internet Connectivity / Connectivity to Customer Premise Media Agent
- TCP/5010, TCP/80, TCP/443, TCP/8400-8405 open outbound

4 PRICING

4.1 Pricing Overview

Backup Pricing consists of the following components.

- Setup Fee
- Media Agent (Onsite Replicated Only)
- Backup Storage
- Long-Term Retention (Optional)

All prices in this document exclude GST.

4.2 Setup Fee

The below table describes the setup fees and associated Early Termination Fees that are applicable to the BaaS product.

Contract Term	Once Off Setup Fee	Early Termination Charge
No Contract	$1,000	No ETC
6 Month Contract	$500	$175 x the months remaining in the contract
12 Month Contract	$0	$125 x the months remaining in the contract

4.3 Media Agent

Where Bendigo Telco deploys an Onsite Replicated backup solution, a media agent is used to backup and deduplicate the data locally, before being replicated into Bendigo Telco's data storage environment. The costs associated with the media agent are as follows.

- Hardware Rental
- Hardware Support
- Management

Media Agents and associated costs are priced on application.

4.4 Backup Usage Pricing

Bendigo Telco Backup Usage pricing is charged per Protected GB.

Application and File Protection

Protection for applications such as Exchange, Active Directory and Databases and Individual file level protection.

	Daily Backup	Hourly Backup	½ Hourly Backup
0 – 999GB	$0.48	$0.59	$0.70
1,000 – 3,999GB	$0.46	$0.56	$0.66
4,000 – 6,999GB	$0.44	$0.53	$0.62
7,000 – 9,999GB	$0.42	$0.50	$0.58
10,000+GB	$0.40	$0.47	$0.54

Virtual Machine Backup

Virtual Machine Backup are Point-in-time snapshots of Virtual Servers.

	Daily Backup
0 – 999GB	$0.40
1,000 – 3,999GB	$0.38
4,000 – 6,999GB	$0.36
7,000 – 9,999GB	$0.34
10,000GB+	$0.32

* Virtual Machine Backups are free on Bendigo Telco's shared infrastructure (Virtual Server) products.

Long-Term Retention Pricing

Customers have the option of purchasing Long-Term Retention for their backups. Bendigo Telco has the following long-term retention options:

- 1 Year
- 3 Years
- 7 Years

Pricing is per Protected GB. The table below describes the pricing for long-term retention, charged in addition to Backup Licences.

From (GB)	To (GB)	1 Year Retention Rate (per GB)	3 Year Retention Rate (per GB)	7 Year Retention Rate (per GB)
-	1,000	$0.16	$0.18	$0.20
1,000	4,000	$0.15	$0.17	$0.19
4,000	7,000	$0.14	$0.16	$0.18
7,000	10,000	$0.13	$0.15	$0.17
10,000	+	$0.12	$0.14	$0.16

Minimum Spend

Long term retention has a minimum spend of $100 per month.

Charging Methodology

Peak Monthly Backup

Backup Usage and Long-Term Retention is billed per month per GB for the maximum (peak) amount data protected during the month. For example, if 1,000GB of data is backed up in the middle of the month and only 500GB is backed up at the end of the month, the billable amount will be 1,000GB assuming that this was the maximum amount backed up during the month.

Volume Based Pricing

Backup is charged at a per GB rate. The price per GB reduces as the volume of backup increases. Prices are based on the total aggregate of protected data. For example, if a customer protects 700GB of Applications and Files as well as 700GB of Virtual Machine Backup, their volume will be 1,400GB. Application and File Protection, Virtual Machine Backups and Long-Term Retention will be charged at their respective 1,000 – 3,999GB rates.

4.5   Other Fees and Charges

Restoration Charges

The below table describes the charges associated with restoring backed up data.

Restoration Method	Once Off Fee
Via Web Console	$0
Via Service Desk / NOC (where functionality exists in Web Console)	$75
Via Service Desk / NOC (where functionality does not exist in Web Console)	$0

24/7 Help Desk Support

Bendigo Telco's BaaS product include business hours support. Support is offered during business hours (8:00 am to 6:00 pm Monday to Friday, excluding public holidays). Customers can purchase 24/7 Support for an additional $90 per month.

5   SERVICE LEVEL AGREEMENTS

5.1   Bendigo Telco Service Level Agreement (the "Bendigo Telco SLA")

Provided that you are a paid Subscriber, we will:

- make and store a copy of your Protected Data in accordance with your nominated backup schedule, and
- the CommVault Web Console interface will be operational and available to Customer at least 99.9% of the time in any calendar month

5.2   Change Management Response Times

Overview

Change Management is the process of ensuring that all changes at Bendigo Telco take place in a planned and approved manner. The primary objective of this change management policy is to enable beneficial changes to be made, with minimum disruption to IT Services.

Policy

1. Any addition, modification or removal of anything that could have an effect on IT services is a change and must be captured through a "Change Management" record.

2. The following table outlines the change models:

Change Type	Description	Request for Change (RFC)
Standard	A pre-authorised change to a service or infrastructure that has an accepted and established procedure to provide a specific change requirement.	Performed within 3 Business Days of lodgement.
Normal	Unless a change falls into one of the other models, it is considered a normal change. Bendigo Telco classify normal changes as either an "Outage" if the service is impacting, or "Hazard" for general notification. Supplier Notifications are classified as Normal.	Scoped and scheduled within 5 Business Days of lodgement.
Major	Changes with the potential to have a major impact on services or multiple customers. This includes the installation of new system components or the modification of infrastructure or applications. This level of change may require a level of Project Management or additional costs.	A **Change Proposal** must occur before work is chartered.
Emergency	A change intended to repair an error in an IT service that is negatively impacting the business to a high degree.	3 Hours

3. Requests for Change (RFC) requiring IT Consultancy must have a quote signed off by the Business Relationship Manager (Customer), after being authorised by the customer.

4. All non-supplier related change records must be accompanied by a "Change Plan and Verification" document.

5. Customer affecting notifications, including supplier notifications must be distributed by the Service Desk.

6. Changes which have the potential to impact security mechanisms must be flagged to ensure Post Change Security tasks are performed.

7. The relevant line manager must review, assess and evaluate the change request before providing approval. The "Change Plan and Verification" must be validated and completed before approval can be granted.

5.3 Restoration Rates

Bendigo Telco's BaaS platform is capable of restoring backups at a rate of 600Mb/s (approx. 270GB per Hour), however, restoration rates vary between 300Mb/s (135GB per Hour) and 600Mb/s. Typical restoration rates are approximately 400Mb/s (180GB per Hour). Restoration rates are affected by the speed and quality of your internet service.

5.4 Service Rebates

If Bendigo Telco does not meet the Bendigo Telco SLA, Subscriber will be eligible to receive the Service Rebates described below. This Bendigo Telco SLA states Subscriber's sole and exclusive remedy for any failure by Bendigo Telco to meet the Bendigo Telco SLA.

In the event that Bendigo Telco does not meet SLA's, the customer will be eligible for the following Service Rebates.

Monthly Uptime Percentage	Rebate
< 99.99% - >= 99.0%	50% of the previous months BaaS Usage Charges
< 99.0%	100% of the previous months BaaS Usage Charges

5.5 Customer Request Service Credit

In order to receive any of the Service Credits described above, Customer must notify Bendigo Telco within thirty days from the time Customer becomes eligible to receive a Service Credit. Failure to comply with this requirement will forfeit Customer's right to receive a Service Credit.

5.6 Maximum Service Credit

The aggregate maximum Service Credit to be issued by Bendigo Telco to a customer in a single month is 100% of the previous month's invoice.

5.7 Update Notification

Bendigo Telco reserves the right to alter this Service Level Agreement without advanced notice. Enforcement of the new agreement will begin 30 days after the change. Changes with a significant impact will be communicated to paid Subscribers to the email address provided.

5.8 Bendigo Telco SLA Exclusions

Acts of God

The Bendigo Telco SLA does not apply to any services that expressly exclude this SLA (as stated in the documentation for such services) or any performance issues that:

(i)   are related to acts of nature, forces or causes beyond our reasonable control, strikes, labor disputes, riots, insurrections, civil disturbances, explosions, acts of God, war, governmental actions, or orders of domestic or foreign courts or tribunals; or,

(ii)   result from the availability of third-party APIs; or,

(iii)   a result of Subscriber's equipment.

Network Access and Capacity

It is the customer's responsibility to ensure that they have the necessary data access and network capacity to complete their backups in a reasonable timeframe. Bendigo Telco will not provide service level credits unless we are satisfied that the data access and network capacity is satisfactory.

Scheduled Outages, Maintenance & Hazardous Works

From time to time, it is necessary for Bendigo Telco to perform maintenance on its products. This maintenance may require services to be temporarily suspended. Scheduled Outages, Maintenance & Hazardous Works and communicated to customers with at least 24 hours notice. Scheduled Outages, Maintenance & Hazardous Works are excluded from the Uptime service level target.

6   GLOSSARY OF TERMS

Term	Definition
In-Place Restore	The restoration of a file/application/Virtual Server over the top of an existing file/application/Virtual Server. It may result in the loss of data
Out Of Place Restore	The restoration of a file/application/Virtual Server to a new location, so as to keep the existing data available
Backup Agent	The software module in the system that performs data protection operations
SubClient	A logical entity that defines specific data on a computer that will be protected (drives, folders, files, databases, mailboxes, etc)
Backed-up Data	means to save a copy of your data and other files that exist on third-party websites that you designate within the Service for backup and are available through externally facing APIs
Initial Backup	means the first full copy and storage of your Backed-up Data.
Downtime	means the Service is unavailable for a customer, exclusive of Permitted Downtime.
Permitted Downtime	means the Service is unavailable for customer use during a prescheduled period which has been announced at least 72 hours in advance. Unless otherwise communicated, scheduled downtime shall not be more than 2 hours per week, for major system configuration changes, upgrades or normal maintenance.
Monthly Uptime Percentage	means the total number of minutes in a calendar month minus the number of minutes of Downtime suffered in a calendar month, divided by the total number of minutes in a calendar month.
Sequential Days Without Backed-up Data	means the number of sequential calendar days where we have failed to make and store a copy of your Backed-up Data.
Service	means the Bendigo Telco backup and recovery service provided by Bendigo Telco to Customer under the Agreement.
Service Rebate	means either Access Related Service Rebate or Performance Related Service Rebate.
Maximum Service Credit	The aggregate maximum number of Service Credits to be issued by Bendigo Telco to Subscriber in a single calendar month shall not exceed fifteen days of Service.