



DataCore Cloud Service Provider Program (DCSPP) Product Guide

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Overview

This DataCore Cloud Service Provider Program (DCSPP) Product Guide (“Product Guide”) lists the products available through the DCSPP (the “DCSPP Products”) as of March 1, 2017, along with the available monthly subscription plans (“DCSPP Monthly Point Plans”) under which they are licensed. The DCSPP Products and DCSPP Monthly Point Plans may be updated by DataCore at any time. Under the DCSPP, the CSP purchases DCSPP Monthly Point Plans and obtains licenses for DCSPP Products from an Aggregator. The CSP pays the Aggregator monthly for the use of DCSPP Products based on the number of points that usage consumes. The prices charged to the CSP under the DCSPP Monthly Point Plan for the points consumed under the plan are determined by the Aggregator.

The Product Guide explains how a CSP consumes points through the use of DCSPP Products and how the amount a CSP pays for the number of points consumed in a given month is determined based on the DCSPP Monthly Point Plan that it purchased.

To be authorized to obtain DCSPP Monthly Point Plans and DCSPP Products from an Aggregator, a CSP must meet the requirements set out in the CSP/DataCore Agreement and the DCSPP Policy Guide for CSPs (“Policy Guide”). The terms of this Product Guide are in addition to the terms of the CSP/DataCore Agreement and the Policy Guide. The terms of the Agreement and the Policy Guide are controlling in the event of any conflict with the Product Guide. All terms not otherwise defined herein shall have the meanings given in the Agreement and in the Policy Guide.

All documentation referenced in this Product Guide is made available to CSPs on the DCSPP Partner Portal.

Licensing and Pricing

The DCSPP licensing and pricing structure is similar to a cellular telephone plan. Rather than assigning specific prices to products as is typical in perpetual license purchase arrangements, DCSPP Products have point values assigned per unit of monthly usage. Generally under the DCSPP, points consumed for DCSPP Products are calculated based on how much peak capacity the DCSPP Products served in a given month. Nevertheless, different products may be added to the DCSPP over time as to which different usage measurements apply.

To get started, a CSP places an order with its Aggregator for a DCSPP Monthly Point Plan based on the number of points it expects to consume each month for the next twelve (12) months. Then, each month, the actual point consumption is compared to the points included in the plan. The CSP pays the full price for the monthly subscription even if the CSP consumes fewer points than are included. Unused points may not be rolled over to another month.

Additional points consumed during a month over the number included in the DCSPP Monthly Point Plan are charged at a price per point. The DCSPP Monthly Point Plans are structured with the intention that the effective price per point would decrease as the number of points included in the monthly subscription increases. However, it is the Aggregator, and not DataCore, that ultimately determines the prices that CSPs will pay for these plans.

Choice of DCSPP Monthly Point Plans

DataCore offers the following seven DCSPP Monthly Point Plans for resale through the Aggregators. CSPs should consult the Aggregators in their respective Territories for the “Monthly Base Subscription Prices” and the corresponding “Price per Point for Additional Points over Plan” referenced in the table below.

DCSPP Monthly Point Plan	Points Included in Monthly Subscription	Monthly Base Subscription Price	Price per Point for Additional Points over Plan
CSP 300	300	*	*
CSP 750	750	*	*
CSP 1500	1500	*	*
CSP 3000	3000	*	*
CSP 7500	7500	*	*
CSP 15000	15000	*	*
CSP 30000	30000	*	*
CSP 60000	60000	*	*

* Prices available from Aggregators

DCSPP Product Availability Chart

CSPs may license the SANSymphony™ products listed in the table below. All usage of these products must be reported to the Aggregator on a monthly basis as provided in the Policy Guide and any additional instructions given by the Aggregator.

Product Name	Points / Month	Charged Per
SANSymphony Blue CSP Bundle	9	1 TB of Peak Virtual Capacity Served
SANSymphony Green CSP Bundle	15	1 TB of Peak Virtual Capacity Served

DCSPP Products are licensed for the term of the DCSPP Monthly Point Plan ordered by the CSP. The CSP may license different DCSPP Products and multiple instances of a DCSPP Product under the same point plan.

Auxiliary Products

CSPs may also install and use the auxiliary DCSPP Products listed below if necessary throughout the terms of their point plans. There is no additional charge for these auxiliary DCSPP Products at this time. Auxiliary DCSPP Products may only be used with DCSPP Products licensed to the CSP under the DCSPP and not with other DataCore products that the CSP may have licensed.

- SANsymphony vCenter Plug-in
- SANsymphony System Center Operations Manager Management Pack
- Windows Host Integration Kit
- DataCore's Support for AIX MPIO
- Support Bundle Relay
- SANsymphony Storage Replication Adapter for VMware SRM
- DataCore VASA Provider for VMware Virtual Volumes (VVOL)
- SANsymphony REST Support
- DataCore OpenStack Integration
- DataCore Veeam Integration

Product Specific Usage Information

For purposes of this Product Guide, the CSP may only use DCSPP Products to provide Hosted IT Services as defined in the CSP/DataCore Agreement.

Measurement

Currently, usage for all DCSPP Products is based on "Peak Virtual Capacity Served" each month. The Peak Virtual Capacity Served is measured in Terabytes (TBs).

1 TB = 1024 Gigabytes (GB)

"Peak Virtual Capacity Served" is defined as the maximum capacity that a SANsymphony Server Group served to storage consumers (hosts) during a month. The Reporting Overview section later in this Product Guide defines "Server Group" and explains how the DCSPP Product Usage Meter determines the Peak Virtual Capacity Served each month.

Product Descriptions

The products listed in the DCSPP Product Availability Chart are described below. Currently, DataCore offers two "CSP Bundles" under the DCSPP: the Blue CSP Bundle and the Green CSP Bundle.

SANsymphony Blue CSP Bundle

The SANsymphony Blue CSP Bundle provides the key DataCore software components required to deliver a competitive "pay for use" cloud storage service with high availability.

Point Value = 9 points per 1 TB of Peak Virtual Capacity Served

Components:

Qty 1 - SANsymphony CSP Node License with the following features enabled:

- Central Management Console
- Virtual Disk Pooling
- Synchronous Mirroring
- Caching
- Thin Provisioning
- Storage migration and Pass-through Disks
- iSCSI Protocol
- Fibre Channel Protocol
- Parallel I/O
- SMPA (Shared Multi Port Array)

Support Included:

DataCore 24x7x365 Premium Support. See www.datacore.com/services_support/servsup_policies.asp.

SANSymphony Green CSP Bundle

The SANSymphony Green CSP Bundle provides the key components required to deliver premium class cloud storage services. It provides a superset of the capabilities found in the SANSymphony Blue CSP Bundle, particularly in regard to tiered storage management, added data protection and remote disaster recovery.

Point Value = 15 points per 1 TB of Peak Virtual Capacity Served

Components:

Qty 1 - SANSymphony CSP Node License with the following features enabled:

- Central Management Console
- Virtual Disk Pooling
- Synchronous Mirroring
- Caching
- Thin Provisioning
- Storage migration and Pass-through Disks
- iSCSI Protocol
- Fibre Channel Protocol
- Parallel I/O
- SMPA (Shared Multi Port Array)
- Random Write Acceleration
- Snapshot
- Continuous Data Protection (CDP)
- Asynchronous Replication
- Advanced Site Recovery
- Automated Storage Tiering

Support Included:

DataCore 24x7x365 Premium Support. See www.datacore.com/services_support/servsup_policies.asp.

Reporting Overview

Each CSP must submit a CSP Monthly Usage Report reporting its monthly usage of DCSPP Products to the Aggregator from which it procured the DCSPP Products according to the timetable set out in the CSP/Aggregator Agreement. DataCore requires CSPs to use DCSPP Product Usage Meter software utilities (supplied at no charge) to gather the usage information from their active installations of the CSP Bundles. Each DCSPP Product Usage Meter produces a DCSPP Product Usage Report for the DCSPP Product with which it is installed. At the end of each calendar month, all the DCSPP Product Usage Reports for that month for each instance of a DCSPP Product licensed to a CSP are required to be included in the CSP Monthly Usage Report. At the time this guide was written, the only DCSPP Product Usage Meter in use in the DCSPP is the “SANSymphony Usage Meter”. As products are added to the program, other DCSPP Usage Meters may be introduced or DataCore may require that some products are monitored and reported manually by the CSP.

SANSymphony Usage Meter

The SANSymphony Usage Meter automatically collects usage information daily from the each CSP Bundle where it is installed. The CSP must install the SANSymphony Usage Meter wherever a SANSymphony CSP Bundle is installed. The CSP must submit in each CSP Monthly Usage Report a monthly DCSPP Product Usage Report for every DataCore SANSymphony “Server Group” licensed with a CSP Bundle.

DataCore Server Groups

A “Server Group” consists of one or more instances of active SANSymphony CSP Bundle licenses that share configuration and statistical information so that their collective usage can be centrally tallied and their storage virtualization services can be centrally managed. Typically, a Server Group consists of two instances of the CSP Bundle licenses installed on two separate standard physical servers (nodes) to form a high-availability pair. Some Server Groups may have more than two nodes. In some cases where high-availability is not required, a Server Group may consist of a single instance of the CSP Bundle software.

A Server Group always operates with the minimum set of features that its member nodes have in common. Normally, all member nodes of a Server Group should have the same type of CSP Bundle license installed (i.e., all Blue or all Green). However, if in an emergency, the CSP joins a node running the Green CSP Bundle with a node running the Blue CSP Bundle, the Server Group will default to the lesser capabilities of the Blue CSP Bundle. This situation also arises when nodes running the Blue CSP Bundle are upgraded at different times to the Green CSP Bundle licenses. The Server Group will not operate at the higher Green CSP Bundle level until all of its nodes have been upgraded.

The SANSymphony Usage Meter collects the usage information from all the nodes in a Server Group. Each Server Group’s DCSPP Product Usage Report contains a unique identifier associated with its license keys for traceability. This identifier is referred to as the “Server Group ID.”

CSPs may configure more than one Server Group running the same type of CSP Bundle. They may do so to physically isolate different groups of subscribers on separate hardware and track their consumption separately. The Server Group ID helps to distinguish between those separate instances.

The CSP must send the monthly DCSPP Product Usage Reports for all instances of DCSPP Products to the Aggregator in the CSP Monthly Usage Report as provided in the CSP/Aggregator Agreement. In the case of the CSP Bundles, the CSP Monthly Usage report must include itemized usage for each Server Group for which the CSP has procured a license.

Determining Peak Virtual Capacity Served

The SANSymphony Usage Meter keeps track of virtual capacity served each day in a usage log for the Server Group where it is installed. The user interface (UI) on this SANSymphony Usage Meter provides a button used to generate a DCSPP Product Usage Report summarizing the Peak (maximum) Virtual Capacity Served by that Server Group during the month selected. The UI allows the CSP to select the current month or the preceding month. The SANSymphony Usage Meter compares the daily measurements in the usage log to arrive at the day when the peak virtual capacity was served. The CSP must generate the DCSPP Product Usage Report immediately after the month ends in time to fulfill the reporting requirements set out in the CSP/Aggregator Agreement.

Example of Usage Reporting

Let's look at an example in which the CSP requests the DCSPP Product Usage Report on the 2nd day of March to determine the usage from Server Group A for the month of February.

The SANSymphony Usage Meter checks its log to see which day in February had the highest virtual capacity served. This value is reported as the Peak Virtual Capacity Served in Terabytes for the month of February for Server Group A. The CSP repeats the procedure for each Server Group in its infrastructure to collect all usage.

Below are examples of usage information for a CSP that has installed two Server Groups in order to provide different classes of cloud storage services to its subscribers.

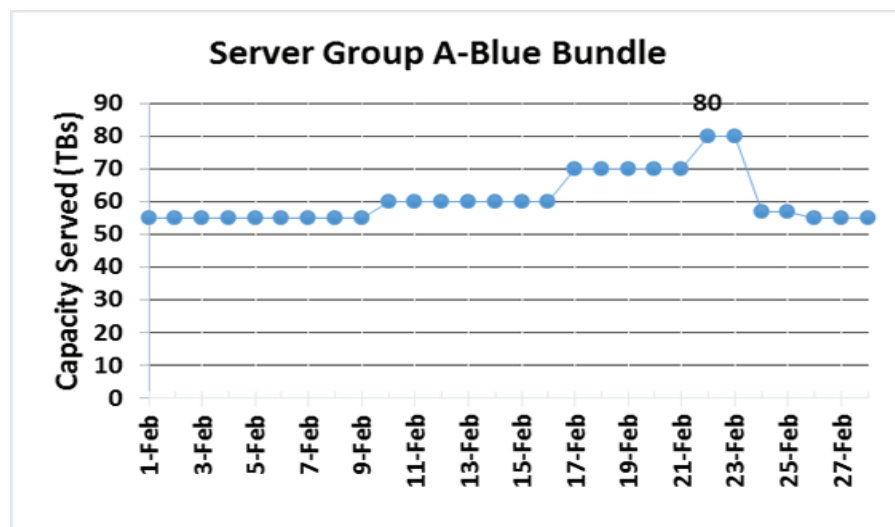
- Server Group A uses the Blue CSP Bundle feature set to provide standard cloud storage services.
- Server Group B uses the Green CSP Bundle feature set to provide premium cloud storage services.

The daily usage chart accompanying the day-by-day tabulation has been included in this guide for a clearer visual indication of the Peak Capacity. The chart is not included in the actual DCSPP Product Usage Report.

Note: The Peak Virtual Capacity is determined for each Server Group individually.

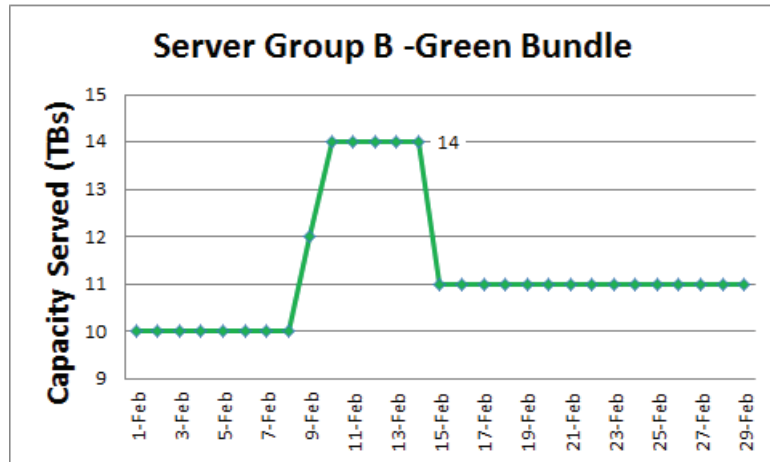
Sample Usage Reports

Server Group	Usage in TBs
A	Blue
1-Feb	55
2-Feb	55
3-Feb	55
4-Feb	55
5-Feb	55
6-Feb	55
7-Feb	55
8-Feb	55
9-Feb	55
10-Feb	60
11-Feb	60
12-Feb	60
13-Feb	60
14-Feb	60
15-Feb	60
16-Feb	60
17-Feb	70
18-Feb	70
19-Feb	70
20-Feb	70
21-Feb	70
22-Feb	80
23-Feb	80
24-Feb	57
25-Feb	57
26-Feb	55
27-Feb	55
28-Feb	55



Sample

	Server Group	Usage in TBs
	B	Green
	1-Feb	10
	2-Feb	10
	3-Feb	10
	4-Feb	10
	5-Feb	10
	6-Feb	10
	7-Feb	10
	8-Feb	10
	9-Feb	12
	10-Feb	14
	11-Feb	14
	12-Feb	14
	13-Feb	14
Peak	14-Feb	14
	15-Feb	11
	16-Feb	11
	17-Feb	11
	18-Feb	11
	19-Feb	11
	20-Feb	11
	21-Feb	11
	22-Feb	11
	23-Feb	11
	24-Feb	11
	25-Feb	11
	26-Feb	11
	27-Feb	11
	28-Feb	11
	29-Feb	11



Monthly Usage Report Submission

For billing purposes, the CSP must submit the CSP Monthly Usage Report containing all the DCSPP Product Usage Reports to its Aggregator for the preceding month according to the timetable set forth in the CSP/ Aggregator Agreement. Generally, the Usage Reports must be submitted by the 5th day of the following month. In other words, February's Usage Reports must be submitted by March 5th.

For more information on the SANsymphony Usage Meter see the SANsymphony Usage Meter Users Guide or FAQ. Any issues or questions regarding the Usage Meter should be sent to CSPusagemeter@datacore.com

Point Calculation Example

In this section, the point totals and billing charges for the sample February DCSPP Product Usage Reports illustrated earlier in the Reporting Overview will be calculated.

Again, all DataCore SANsymphony CSP Bundles are charged based on the Peak Virtual Capacity Served per month. The full rate for the DataCore SANsymphony CSP Bundles applies even if all features in the CSP Bundles are not used by the CSP.

The DCSPP Product Usage Reports for Server Group A revealed a peak capacity consumption of 80 TBs during February. The peak capacity consumption for Server Group B in February was 14 TBs. To calculate the total points used during February, as shown in the table below, the Peak Virtual Capacity Served (TBs) per Month for each Server Group is multiplied by the corresponding Points per Month per 1 TB of Peak Virtual Capacity Served for the type of CSP Bundle installed.

Blue CSP Bundle: $80 \text{ TBs} \times 9 \text{ Points / TB} = 720 \text{ points}$

Green CSP Bundle: $14 \text{ TBs} \times 15 \text{ Points / TB} = 210 \text{ points}$

Total Points used during February = $720 + 210 = 930$

CSP's Monthly Usage for February

Server Group	CSP Bundle Type	Points per Month per 1 TB of Peak Virtual Capacity Served	Peak Virtual Capacity Served (TBs) per Month	Points Used this Month
A	Blue	9	80	720
B	Green	15	14	210
			TOTAL	930

In this example, the CSP was subscribed to the CSP 750 Monthly Point Plan.

		Points
	Usage	930
CSP 750 Point Plan Includes		750
Additional Points		180

The CSP exceeded the 750 points allotted by its DCSPP Monthly Point Plan by 180 Additional Points.

Billing Example

The CSP in the example above will receive an invoice from the Aggregator for the month of February that includes the cost for the Monthly Base Subscription Price plus the cost for the Additional Points at the Price per Point for Additional Points over Plan.

Monthly Point Plan Selected	Monthly Base Subscription Price	Price per Point for Additional Points over Plan
CSP 750	\$ 900*	\$1.20*

* Prices shown are only for illustration

Given the point plan chosen by the CSP, February's invoice would be itemized as shown below:

QTY	DESCRIPTION	UNIT PRICE	EXT PRICE
1	CSP 750 Point Plan Monthly Subscription	\$900*	\$900
180	Additional monthly point on CSP 750 Point Plan	\$ 1.20*	\$216
	TOTAL		\$1,116

Which Point Plan is Best for You?

The CSP should choose a DCSPP Monthly Point Plan after estimating the capacity it expects subscribers to consume across the cloud storage service each month and discussing pricing with its Aggregator.

Below is an example of how a CSP might estimate that capacity and select a plan.

In the following example, the CSP plans to offer two classes of service: a standard level of service using the Blue CSP Bundle feature set; and a premium level using the Green CSP Bundle. Assume that the CSP anticipates subscriptions for approximately 60 TBs of standard cloud service each month for the next 12 months. The CSP also expects to rent out another 10 TBs of premium cloud service each month.

The forecasted monthly point consumption is calculated as follows:

1. Multiply the monthly capacity forecasted to be served by the Blue CSP Bundle by the corresponding points per TB for the Blue CSP Bundle. In this case $60 \text{ TBs} \times 9 \text{ Points / TB} = 540 \text{ points per month}$
2. Now, multiply the monthly capacity forecasted to be served by the Green CSP Bundle by the corresponding points per TB for the Green Bundle. In this case $10 \text{ TBs} \times 15 \text{ Points / TB} = 150 \text{ points per month}$
3. The total forecasted monthly point consumption = $540 \text{ (Blue)} + 150 \text{ (Green)} = 690 \text{ Points}$

Average Monthly Forecast for next 12-months

CSP's Class of Service	CSP Bundle Type	Points per Month per 1 TB of Peak Virtual Capacity Served	Forecast Peak Virtual Capacity Served per Month (TBs)	Forecast Monthly Point Usage
Standard	Blue	9	60	540
Premium	Green	15	10	150
			TOTAL	690

Next, the CSP compares the forecasted monthly point consumption (690 points) against the available DCSPP Monthly Point Plans to determine which plan best suits it. After consulting with its Aggregator, the CSP selects the CSP750 DCSPP Monthly Point Plan as the best choice for the twelve (12) month term.

DCSPP Point Plan	Points Included in Monthly Subscription
CSP 300	300
CSP 750	750
CSP 1500	1500
CSP 3000	3000
CSP 7500	7500
CSP 15000	15000
CSP 30000	30000
CSP 60000	60000

A CSP that is only getting started and cannot forecast its usage will often start with the entry-level CSP 300 DCSPP Monthly Point Plan. After it can better predict its monthly usage, it may choose to move to a higher point plan. The CSP's commitment to the new point plan continues for twelve (12) months from the date the change becomes effective. During the 12-month period, a CSP may not change to a lower point plan, that is, one that has fewer points included.

Primary Point of Contact

The Aggregators are the CSPs' primary points of service under the DCSPP. Questions regarding the administration of the DCSPP, the DCSPP Product Guide, DCSPP Monthly Point Plans, DCSPP Products, pricing and usage reporting should be directed to the CSP's Aggregator.