



CloudBerry Lab

#1 Cross-Platform Cloud Backup

The MSP's Technical Guide to Providing Backup-as-a-Service



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Every MSP should be looking for additional services that are easy to setup, simple to manage, achieve predictable results, and generate consistent revenue. Backup-as-a-Service is one of the logical “next steps” for every MSP that is already responsible for the care of their customer’s most critical systems. Some simply haven’t made the jump yet (e.g. the customer is still managing their own backups), while others just haven’t moved their management of backups to a recurring service model.

In either case, as you work to develop and define your offering, keep in mind the services you offer need to create value for both the MSP and your customer. It should also be noted that BaaS isn’t as simple as just choosing a backup solution and starting to create backups; there are many technical details that both determine what you can offer, and whether you are able to deliver.

This guide will provide you with a rather robust list of technical considerations that will help define how you plan on providing BaaS. Once you’ve decided how your BaaS practice will operate, these same technical considerations will impact the specific services that make up your BaaS practice, the details in your Service Level Agreement, and even your pricing model.

But, not every MSP is ready to make the jump; some are merely looking into BaaS and an option for their next service. So, before we jump into the aspects of BaaS that will craft your business’ service definition, let’s first level-set with why you should be selling Backup-as-a-Service.



Why Add BaaS to Your List of Services?

There are two key reasons any new service should be considered by an MSP: it's needed by your customer, and you generate a profit providing it. The first is critical – without customer need, you are offering a solution looking for a problem.

In the case of BaaS, backups are essential, now more than ever; keeping your business operational is a requirement just to remain competitive. Backups create an ability to respond to disasters caused by people, system failure, and weather. In addition, threats like malware attacks infecting endpoints, and ransomware encrypting data and systems both require backups to bring the business back into a known good state.

Backups are also a means to generate more revenue and profit. Offering BaaS provides your business with an additional recurring revenue stream when creating and monitoring backups, as well as opportunities to generate one-off revenue (depending on how you define the scope of your BaaS-related services) in responding to disasters, remediating threats, and testing backups and recovery.

In short, BaaS definitely meets the criteria of a needed and profitable line of business. But, to get your BaaS offering going, you need to first drill into the technical details of what's possible, selecting what aligns with both your customer's needs, and your technical ability.

Defining Your BaaS Offering

You don't launch BaaS by simply picking a backup solution and charging your customer slightly more than the solution costs per month. There are many factors that can define the how, where, and what of your backup service that, in turn, impact the productivity, predictability, and profitability of your new service. Those factors are found in the following four technical consideration areas:

- Backup Solution Features and Capabilities
- Backup Storage
- Backup Management
- Recovery Options

Let's begin with a look at the foundational element of your service – the software used to perform backup and recovery – and what you should expect from it.



Backup Solution Features and Capabilities

There's a myriad of backup solutions on the market - each with its own set of capabilities, methodologies, unique features, and productivity enhancers. So, it's important to dive deep into the solutions you're considering and look to see where they stand on the following aspects of your BaaS business.

Installation and Configuration

Beyond the assumed simplicity, the backup solution you use needs to be designed for MSPs: features like quick installation, multi-tenancy, easy connection to cloud providers, etc. are all needed to ensure you can get the business of BaaS up and running quickly.

Cross-Platform Support

Some MSPs may only support customers running Windows, making this choice somewhat moot. But as many businesses empower employees with their OS of choice, along with some back-end systems running on Linux, the monolithic Windows customer is quickly going away. To make sure you have all your mainstream client OSes covered, look for support of Windows, MacOS, and Linux.

Application-Aware Backups

When an application-level failure occurs - likely due to a corrupt or inconsistent database - your backup and recovery efforts need to center in on the data that needs recovery. Having application-aware backups empowers you to do as little as checking an "Office 365" box, for example, and know that every bit of pertinent data and, in some cases, application files are backed up. This only improves your speed and likelihood of recovery in the long run. Some examples of application-aware backups you should include as part of your selection criteria include Microsoft SQL Server, Exchange, Office 365, and Google Apps. These kinds of backups (particularly the cloud apps) can become an optional service, generating additional revenue.

Multiple Types of Backup

Backups are generally created in one of two ways: either at a file level or as an image. File level backups are a great way to protect a specific data subset of an entire system should file corruption, accidental deletion, or ransomware encryption occur. Image level backups mostly apply when virtualization is used but can make sense with physical systems when recovery will be performed in a virtual environment. Individual files can also be recovered from image backups by mounting the image and extracting the needed files. Image-level is generally sufficient, but consider whether your customers will require file-level as well.



Efficient Backup Technology

Your expectation of a backup solution shouldn't just be one that copies data to a storage location; today's backup solutions also include specific tech that optimizes what gets backed up.

Most solutions start by utilizing incremental backups to minimize the size of each backup job. In addition to this, deduplication, compression, and bandwidth throttling are just a few examples of other methods by which backup solutions increase the speed, accuracy, and efficiency of backup and recovery. Look to understand the specifics of their backup tech, to ensure it aligns with your customer's needs.

Security

This should be an absolute given, regardless of the solution you use, but it needs to be stated: because your customer's data may contain data subject to compliance mandates, intellectual property, operational secrets, personally identifiable data, etc., all data needs to be encrypted both in transit (while being backed up) and at rest (when stored). Higher encryption levels are most desired.

In general, each of these factors play a role in determining how your BaaS offering works; for example, whether you can take on that Mac-only client, or that customer with only physical servers. Work through each of these, deciding on what is necessary in the solution you choose. In addition, the backup solution you use needs to support the method of storage you wish to use as part of your BaaS offering – and there are a few to choose from.

Backup Storage

Equally important is the determination of where you plan on storing your customer's data. The storage choice impacts the availability of the data when needed, the speed by which the data can be restored, and the cost of storage passed onto the customer.

The general recommendation of how to approach backups (and, therefore, your BaaS offering) is to follow the "3-2-1 Rule" which states:

3 copies of your data

(data in production is considered one copy)

2 different backup mediums

(e.g. disk, tape, cloud)

1 copy should be off-site

(the cloud applies here)



There are a few options of how to approach your BaaS storage needs:

Local Storage

whether using a SAN or NAS device, the file system on a server hosting the backup software, or even tape, these storage options hosted at the customer's site provide fast access to backup data, even in scenarios where there is no Internet connection.

Cloud

the storage choices that fall into this category range from using cloud storage provided by the backup solution vendor, to using 3rd-party private or public cloud storage, to your customer using their own off-site data center. When looking at 3-rd party cloud storage vendors, the more choices you have, the better chances of obtaining the lowest cost to provide service (which translates into the lowest cost to your customers). Regardless of the choice, the intent here is to completely host backups off-site. This option provides the highest availability to backup data should remote recovery be necessary.

Hybrid-Cloud

when customer's desire a "best of both worlds" option, the hybrid-cloud model stores a copy both on-premises and in the cloud, giving your customer the highest chance of recovering, regardless of the disaster and whether or not there is Internet access.

When deciding, factor in monthly cost, speed of retrieval, speed of delivery, available tiers of storage (e.g. hot vs an archive), security, and availability.

Backup Management

As with any service you offer, the work of providing backup needs to be efficient, simple, and productive. Without specific capabilities designed to make the business of backups more profitable, even a technically great backup solution will end up costing you. Consider the following capabilities as a short list of "must-haves".

Remote Management

it's 2018. There's no reason for per-customer backup management. Cloud-based, centralized management of all your customer's backups is a must.

Monitoring and Alerting

Building off of remote management, because your techs should be centrally managing backups, they need to be made immediately aware when there are issues with backups across the list of customers they are responsible for.



Licensing and Billing

You plan on charging your customers based on the storage used. So, you need a means by which to keep track and report on customer storage, as well as any licensing costs associated with addressing each customer's specific needs.

3rd Party Integrations

Your backup business can't exist on an island. Integration with your ticketing, billing, and automation systems allows your BaaS offering to function as a cohesive part of your overall MSP practice.

At some point in your providing this service, it will no longer be about backups; the time will come when your customer experiences data loss, system failure, or a natural disaster, requiring your assistance. Proactively defining how you plan on recovering is key to the success of your BaaS offering.

Data Recovery Options

Depending on the disaster circumstances, you need a few recovery options to ensure you can properly get your customer back up and operational. Consider how you'd recover from various levels of loss, including data, application, system, hardware, location, Internet, and business operations. Having several ways to recover is important, as you can't know what kind of loss your customer will have. Recovery options should include:

File-Level

Recovering individual files is a much better choice when the "disaster" is simply a "fat-finger" deletion or a file-level ransomware attack. You don't need an entire system recovered; just the impacted files.

Bare-Metal

When a physical system needs to be rebuilt from the ground up (from the "bare metal"), having an ability to seamlessly recover everything from the boot sector on up is a powerful way to complete the recovery process without the need for a lot of manual intervention.

Restore to VM

Hardware failures don't just mean you need to recover the system; you may need to recover to alternate hardware (which may or may not exist). The ability to restore to a VM (rather than to a physical machine) gives you a recovery option that will speed up the recovery process, making your customer operational much more quickly.



Restore to the Cloud

A loss of location means there is nothing local to restore to. Your BaaS practice should include an option (even if it's a billable add-on) to restore to the cloud. With many cloud providers offering on-demand compute, restoring to the cloud becomes an extremely viable and cost-effective means to restore operations.

Backups of Cloud Suites

The SLA for most cloud app suites does not include any kind of recovery guarantee (most simply rely on geo-redundant storage). Offering to backup email and data in suites like Office 365 and Google's G Suite gives customers a sense of ease knowing their data in the cloud is not just protected, but recoverable.

Establishing Your BaaS Practice

When you really get down to the tactical work necessary to make it a profitable business, BaaS isn't the simplest of services. It requires you thinking about your practice beginning with the recovery of your customer's more critical data sets and working backwards to a solution that has all the necessary functionality to facilitate both the backups and restores necessary.

By walking through the four technical areas of consideration above, you will allow yourself to stop and think about what is it really going to take to provide BaaS, empowering you to build out a definition of what your BaaS offering is, and to ensure that what you offer is something you can actually deliver.

