



Solution Brief

Barracuda Backup

Choosing the Right Size for Your Environment

Organizations are concerned with efficiency and getting the most out of their backup solutions. This has led to the adoption of numerous backup model configurations and storage optimization features such as deduplication and compression. These features were designed to help customers find a solution that best fits their needs; however, this range of options has also made finding the right solution more complicated. Barracuda understands these concerns and offers simple, transparent ways to size backup appliances that fit organizational needs for years to come. Let's explore the factors that should be included in a decision-making process to find the correct Barracuda Backup appliance for your environment.

Suggested Backup Volume vs. Usable Storage Capacity

Barracuda Backup lists two capacity numbers on the datasheet and Barracuda website: Suggested Backup Volume and Usable Storage Capacity. Suggested Backup Volume is the raw data in the protected environment before deduplication or compression. Usable Storage Capacity is the usable disk space available on Barracuda Backup after formatting and RAID.

Barracuda focuses on ensuring customer satisfaction with their initial investment and in the future as their data protection needs grow. Barracuda Backup appliances are sized based on the amount of raw data in your environment. To find the model that best fits your environment, the amount of raw data should not exceed the Suggested Backup Volume value. Barracuda's Suggested Backup Volume is about 50% of the Usable Storage Capacity for each model and is designed to account for typical data growth, revisions, and long-term retention. For example, a customer with 3 TBs of raw data would fit best in a Barracuda Backup model 690. The 3 TBs exceeds the 2 TB Suggested Backup Volume of the 490 and is just under the 4 TB Suggested Backup Volume of the 690, making it a great fit.

MODEL COMPARISON	190	290	390	490	690	790	890	895	990	995	1090
CAPACITY											
Suggested Backup Volume	500 GB	1 TB	2 TB	3 TB	6 TB	9 TB	12 TB	18 TB	24 TB	40 TB	50 TB
Usable Storage Capacity	1 TB	2 TB	4 TB	6 TB	12 TB	18 TB	24 TB	36 TB	48 TB	80 TB	112 TB

Capacity is Not the Only Factor

In addition to sizing based on the amount of raw data in the environment, consideration should be given to environments with a disproportionately higher number of servers or sources compared to the amount of raw data. Each Barracuda Backup appliance has a maximum number of simultaneous backups that can run across all data types. Exceeding the maximum number of simultaneous backups by a wide margin can have adverse effects such as longer than expected backup windows, difficulty replicating data offsite, and overall system performance. An example of this is a VMware environment containing a disproportionate number of virtual machines for the amount of raw data to be protected. See Barracuda's Tech Library article Maximum Number of Simultaneous Backup Jobs by Model for more details.

Retention

One of the largest factors in sizing your Barracuda Backup is retention. Every organization is different and most have unique retention policies that they must abide by. See the image in Figure 1 for what a typical retention policy may look like.

Organizations requiring longer retention policies, such as those in healthcare or financial industries, need to take this into consideration when determining the appropriate Barracuda Backup model for their environment. Organizations at or near the Suggested Backup Volume of specific Barracuda Backup appliances may want to step up to a larger appliance to fit their retention needs. In most cases, the majority of data stored on Barracuda Backup is associated with daily and weekly revisions.

Keep daily revisions for:	14	day(s)	<input type="checkbox"/> local and offsite
Keep weekly revisions for:	4	week(s)	<input type="checkbox"/> local and offsite
Keep monthly revisions for:	12	month(s)	<input type="checkbox"/> offsite only
Keep yearly revisions for:	3	year(s)	<input type="checkbox"/> offsite only

Figure 1 - Typical Retention Policy

Offsite Vaulting

Offsite vaulting enables customers to offload up to 12 monthly and seven yearly revisions to an offsite location, freeing additional disk space on the local Barracuda Backup appliance. Despite the benefits that offsite vaulting can provide, it should not be used to determine which Barracuda Backup model best fits your environment. Since data across the entire environment is being deduplicated, the storage a monthly or yearly revision consumes is unpredictable. Data blocks involved in the creation of monthly or yearly revisions for one server may be the same blocks used in daily or weekly revisions. These data blocks may comprise the backup data for other servers in the environment as well.

Keep daily revisions for:	7	day(s)	<input type="checkbox"/> local and offsite
Keep weekly revisions for:	5	week(s)	<input type="checkbox"/> local and offsite
Keep monthly revisions for:	12	month(s)	<input checked="" type="checkbox"/> offsite only
Keep yearly revisions for:	7	year(s)	<input checked="" type="checkbox"/> offsite only

Figure 2 - Offsite Vaulting

Future Proofing Your Investment

Barracuda's Hardware Refresh Program allows customers with active Energize Updates and Instant Replacement subscriptions to exchange their old Barracuda hardware for newer, refreshed hardware once the original hardware reaches 4 years old. This allows customers to operate on the most current platform – ensuring they benefit from the latest hardware improvements and firmware capabilities.

For customers that take advantage of Barracuda's Hardware Refresh Program or for those that have reached the Usable Storage Capacity of the Barracuda Backup appliance, Barracuda can seamlessly migrate your data from the old appliance to a new appliance. Depending on the amount of data stored on the old appliance, backups can usually begin running on the new appliance in just a few hours.

Barracuda's central management interface, Barracuda Cloud Control, allows simple management of multiple Barracuda Backup appliances from a single pane of glass. Barracuda Cloud Control is ideal for customers managing backups at multiple sites or for those choosing to add additional Barracuda Backup appliances to an environment instead of upgrading to a larger appliance.

Conclusion

Barracuda Backup aims to simplify your data protection needs while offering a complete cloud integrated solution for protecting physical and virtual environments that includes software, local storage, and offsite replication. Choosing a right-sized appliance to fit your organization's needs for years to come should not be hard. By following the guidelines above, Barracuda helps you protect your investment and get the most from your backup solution.