

Cloud vs. Appliance-based Backup: Speed Test Results

Zetta.net DataProtect 4.7 vs. Barracuda Backup 390 | Review

Many businesses have taken a hybrid approach to backup which combines local and cloud-based offsite backup and recovery. As part of a cloud backup solution, the backup appliance was introduced as a turn-key, pre-integrated platform to help speed backups & store the data until it could make it through the pipe to the cloud. While they did the job, appliances have their downfalls such as adding increased complexity and higher cost to the backup service. The argument in question is whether or not an appliance is still necessary to move data quickly to the cloud and back.

Test Purpose

Zetta.net Inc., an appliance-free backup solution that combines both cloud and local backup and disaster recovery, has commissioned Mediatronics to evaluate its latest DataProtect 4.7 release versus Barracuda Backup 390 Appliance with Cloud Storage to see how backup and recovery speed times compared.

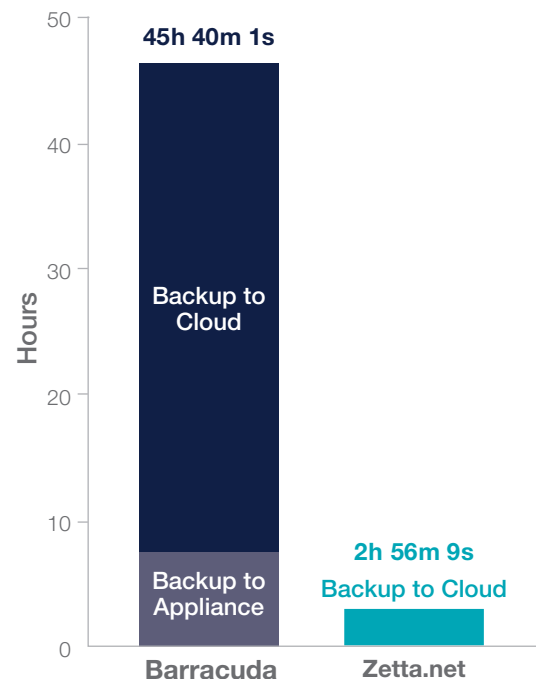
Test Summary

For the test of the Barracuda, an initial backup of 490GB of data was made to the appliance which was then replicated to the Barracuda Cloud. The Zetta.net backup of 490GB of data was direct to the Zetta.net cloud, with no appliance required.

Test Results

While the expectation was that the Barracuda would back up quickly to the appliance and then more slowly to the cloud, the test revealed that the **Zetta.net cloud-based backup was 2.5X faster (2 hours 56 minutes)** than local backup to the Barracuda appliance (7 hours 29 minutes) and **13X faster (2 hours 56 minutes)** than the Barracuda cloud backup (38 hours 10 minutes).

Total Time for Initial Full Backup



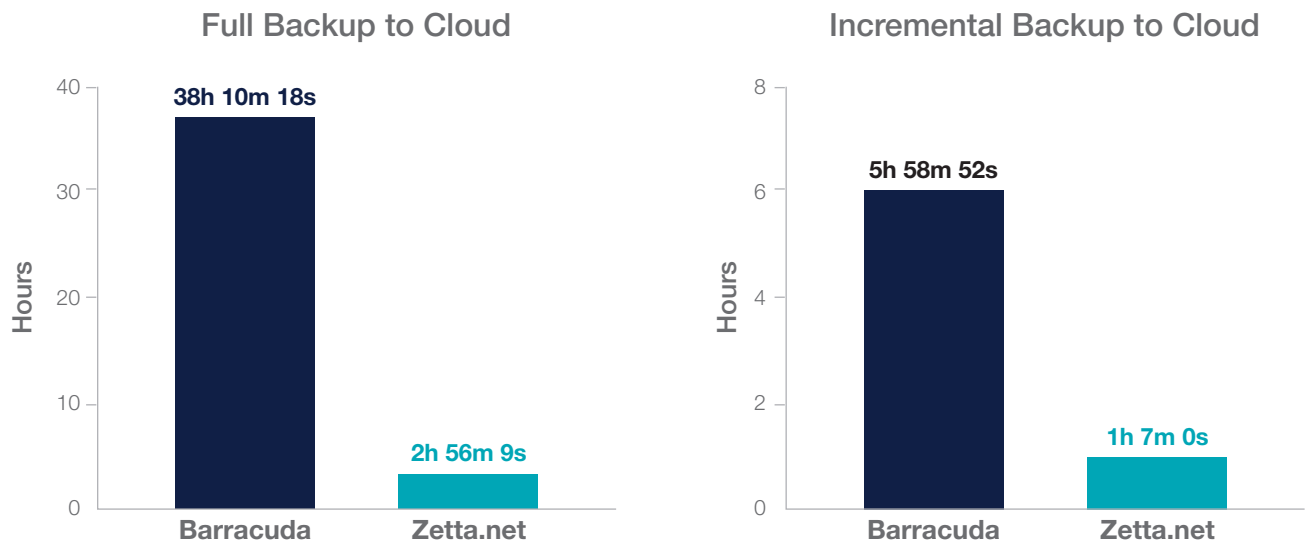
Test Setup

The test system was a Windows 8.1 Pro PC with an Intel Core i7-5820K CPU running at 3.33GHz, 16 GB of RAM, 256GB Samsung 850 SSD OS drive, 1TB Samsung 850 SSD data drive, and Intel I211 gigabit Ethernet, connected to a gigabit switch, which was connected to a 10Gbit fiber Internet connection provided by Level3 Communications.

The data drive was populated with 490GB of data. An image backup of the data drive was created on both systems, then 25GB of files were changed, representing a 5% data change rate, and an incremental backup was created on both systems.

For the Barracuda, an initial backup was made to the appliance, connected by gigabit Ethernet on the same switch as the test system, which was then replicated automatically to the Barracuda Cloud. The Zetta.net backup was direct to the Zetta.net cloud.

Comparison of Cloud Backup Times: Barracuda 390 vs. Zetta DataProtect



Results Details

Task	When tested	Time to completion
Barracuda full backup to appliance	March 6 2015 4:52pm – 12:21am PST	7 hours, 29 minutes, 43 seconds
Barracuda replication of full backup to Barracuda cloud	March 6 2015 4:52pm – March 8 06:02 am	38 hours, 10 minutes, 18 seconds
Zetta.net full backup	March 6 2015 14:01pm – 16:57 PST	2 hours 56 minutes, 9 seconds
Barracuda incremental backup to appliance	March 10 2015 5:09pm – 6:53pm PST	1 hour, 44 minutes, 13 seconds
Barracuda replication of incremental backup to Barracuda cloud	March 10 2015 5:09pm – 11:07pm PST	5 hours, 58 minutes, 52 seconds
Zetta.net incremental backup	March 10 2015 12:48pm – 2:00pm PST	1 hour, 7 minutes, 0 seconds

Pricing as Tested

Barracuda Model 390 hardware appliance		Zetta DataProtect	
BBS390a Barracuda Backup Server 390 BAR-BS-610788	\$2,499.00	Enterprise-grade secure online storage – 500GB at \$.35/GB	\$175/mo
1 Year Unlimited Cloud Storage BAR-BS-610788	\$1,249.00	Unlimited licenses of backup/ recovery software - WAN optimized for fast data transfers	Included
1 Year updates EU BAR-BS-610788	\$449.00	24x7 managed service US-based phone support	Included
Shipping (UPS Ground Service)	\$25.00		
Tax (8.750%):	\$218.66		
Total Cost	\$4,440.66	Total Cost	\$2,100/yr