

INSANE BACKUP SPEED

Customer Feedback on Veeam Backup & Replication 4.0

As a result of ongoing research and development efforts, and in response to customer feedback, Veeam Backup & Replication 4.0 includes a markedly expanded range of features and enhancements, most not available from any other vendor.

Here's what some of our customers are saying about Veeam Backup & Replication 4.0.

"That's right... 15 minutes... 670GB... insane!"

"I'm going to be singing this product's name from the rooftops... at last I can get my evenings back."

Backup Speed

- "Just kicked the backup off, **INSANE** speeds"
- "That's right... 15 minutes... 670GB... insane!"
- "Woa! First backup of a new VM. Win2k8 R2 64bit. VM version 7, our whole VMware environment is already on vSphere. VM was Thin Provisioned. Presented size is 24GB, but actual space is approx. 8GB. **Initial full backup resulted in 190MB/s speeds!**"
"Then put the VM on an 5-hourly backup schedule. Next pass was 435MB/s, then 506MB/s. Or to put it in another way, complete backup of the 24GB VM took exactly **1 minute and 2 seconds...!!**"
- "Well everything is running sweet for me!
The upgrade to version 4.0 worked a charm, created some new backup jobs and started them.
We are running Veeam on an old pentium D (dual core) server so had to drop the compression back to low, so the CPU wasn't at 100%.
CPU has been sitting about 50%-95% and currently 5/7 VM's have been processed.
I can't wait to do some testing and see how fast the incremental backups go with the block tracking!"
- "Showed my manager the speed of the initial backup of the Exchange server (disk exclusions), as mentioned above. 60MB/s now, vs. 15-20MB/s earlier (network). Incremental clocked in at 291MB/s. This is an actual server that has many users changing data. Before, backup took 1 hour and 15 minutes. Now, incremental backup takes **4 minutes!!!!** Let's just say he was very impressed."
- "**The speed difference with vSphere 4 & Veeam 4 is crazy compared to Veeam 3.**A full backup using Veeam4 took way less time than even an incremental using Veeam3. The changed block tracking and other improvements in both engines (VMware and Veeam) is well worth upgrading your v4 hardware machines to v7 hardware for that. It is a truly amazing difference in backup speeds."

All quotes are taken from the Veeam Community Forums <http://www.veeam.com/forums/>

- **"After installing Veeam 4.0 with vStorage API my backups are SUPER fast** and I no longer having slow backup issues! Even my first complete backup of the VM went pretty good! Now with synthetic backups my backups finish in no time at all!
Thank you VEEAM!!! I can finally stop worrying about my backups at night."

- "We've been running the new and improved Veeam B&R for about two weeks now and I can honestly say it's been a revelation. It's insanely fast, easy to use, stable and has (almost) all the features we want. The person who thought up the functionality where you can use a replica to restore individual files from a VMDK should get a medal. Maybe it existed in earlier versions too, but it's a real life saver.
Incremental backups are extremely fast on most VM's. An incremental backup of our 500GB+ fileserver (2.6 million files) is done in under 3 minutes. **The initial full backup took only 1:19:00.** Due to the nature of vRanger's file level restore function, we were still relying on file-by-file backup using Backup Exec, which took us 6 hours every night. That has just been cut down to 3 minutes.
Coming from vRanger, it makes me bang my head against the wall for ever buying their software. My blood pressure has dropped a few points now."

Exchange Backup Speed

- "Holy Crap is pretty much what comes to mind.
v3.31 (incremental)
Success 10/25/2009 6:16:51 PM 10/26/2009 1:56:35 AM 200.02 GB 200.02 GB 7 MB/s (7 hrs 40 mins)
v4 (full)
Success 10/26/2009 6:01:16 PM 10/26/2009 8:22:50 PM 200.02 GB 200.02 GB 24 MB/s (**2 hrs 20 mins**)
'nuff said!
Other details, all VMs are now on iSCSI 1GigE, the controllers have 2 ports and I'm going to try and bond them together today, but all of my VMs are running across that one GigE and there were 3 simultaneous backups running when the Exchange backup ran (Exchange plus 2 others). The 3 backup jobs are on different LUNs/Arrays on the same SAN. Backup target is also iSCSI 1GigE on a different SAN (formatted NTFS)
Nice job on this version, I can't wait to see what the incremental does tonight!"
- "We saw the same thing in our testing, our nightly Exchange backups was 7-10MB/sec with v4, and 35-45MB/sec with v4. Now that we've upgraded to ESX4 our Exchanges backups are 75-90MB/sec with v4.
That's a **10x increase**. Can't wait to get v4 into production!!!"

Backup Reliability

- "...got everything installed (web ui and all), running backup jobs, and **am *extremely* impressed.**"
- "It's a great improvement. **Finally we're going to be able to do our full enterprise backups through Veeam.**"

Enterprise Manager

- "Yesterday I upgraded 3 of our backups servers. The first impression is fantastic!!
I was upgrading the servers from home, watching a soccer game. I actually tried to explain to my girlfriend what a marvelous product Veeam is. Unfortunately she didn't understand anything of it. When I told her that I was making an incremental backup with a speed of 2 GB/s she asked me if that was fast?
Thank you for your great work!! **The central management console is an excellent add-on!**"

All quotes are taken from the Veeam Community Forums <http://www.veeam.com/forums/>

- “I’ve just updated 4 of our backup systems (each capable of 12TB of backups). Everything worked like a charm. The vStorage API backup mode is fantastic! **The feature I love most is the Enterprise Manager.** Now it is possible to have a quick overview over the whole backup infrastructure.
@ Veeam: Thank you very much for this gorgeous release!
- “Tried WebUI now. ...Looks very impressive! **And what I like most about it is that is lightning fast!** You can deep dive into the various jobs, VMs, and so on. Very easy to use; no manual needed.”
- “Just a quick update that I am now backing up a total of 10.2TB of data, 212 VMs and 11 templates, spread over 32 separate (concurrent) jobs running across 3 backup servers.
Man, I just love this WebUI !! **I can see all the statistics above from ONE location...** imagine compiling all that without WebUI. And the graphical representation of the backup windows and performance/speed/time per server? Awesome!”

Backup through vStorage API

- “SAN backups of VMs WITH disk exclusions. ... What did we have to do earlier? Exclusion backups were only supported over network. With gigs and gigs of C:-disks to back up, this took a while... What now?
Veeam Backup & Replication 4.0 supports disk exclusions even in SAN mode (vSphere API)!!”

Backup in Hot Add Mode

- “I’m thinking now of moving to this (vStorage API) mode for all my backups and then I can remove the Poweredge 860 which is the physical backup server.....**another server out the server room!!** very good feature this”
- “...Guys **HOT ADD is the real way forward for VB** if you get chance to try it out ... it really is the fastest option for backups in my enviroment getting 10% faster than traditional API backups”
- “Most of our remote sites have no physical servers at all, or if they do have a physical server it’s a Linux server, so hot add mode would be great for these because it’s ideal for running Veeam within a VM and still does direct SAN backups. The network mode would be almost as good, but is much slower with ESX 4, although perhaps not a big deal with block change tracking. ... We’ve never really run Veeam at the remote sites, but we’re thinking it might be able to cover pretty much all of our backups now.”

Using Hot Add Mode with NFS Datastores

- “I’ve been testing using the new virtual appliance mode with Veeam 4 and the results have been outstanding, my first test peaked out at 33MB/s which is a great speed given the limitations of our storage servers (these are not enterprise SANs we’re talking about).
I believe that virtual appliance mode is fantastic for anyone using NFS datastore servers.
...I’m incredibly impressed so far with this release!”

Near CDP Replication

- “Our remote sites generally only have 2 servers, and 5-7 VM’s, typically 500-1TB of data or more, but they do have small, iSCSI SAN’s because we think vMotion is worth it, giving us much flexibility during hardware/OS maintenance. I suppose with Veeam 4/block change tracking we could probably use two ESX servers with local storage, and **Veeam replication running every few minutes and perhaps actually be more robust without the SAN.**”
- “Change block tracking with virtual machines, I would dare state, is a totally new way of looking at things. **It’s literally next generation backups.**”

Backup Compression

- “Wow, did @Veeam Backup 4.0 really just compress a 66 GB Red Hat VM with 39 GB used (Oracle db) to only 10 GB?? VBU 3.1.1 backup was 39 GB! Not only does @**Veeam Backup 4.0 compress this VM to 1/4 the size** of but also in half the time. This is still VCB, not even vStorage API yet.”
- “We are using the vStorage API and **we are backing up 1.7TB into 525.8 GB** with a compression ration of 3x.”
- “Just comparing a few .vbk’s between VB3 and VB4.
Here are my results so far:
 - fileserver3 - VM Size: 56GB - Space used (in guest): 36GB - VB3 (vbk): 63GB; VB4 (vbk): 13.5GB
 - fileserver4 - VM Size: 666GB - Space used (in guest): 628GB - VB3 (vbk): 625GB; VB4 (vbk): 449GB
 - fileserver5 - VM Size: 75GB - Space used (in guest): 52GB - VB3 (vbk): 47GB; VB4 (vbk): 29.3GBThese are all single-VM-backupjobs (1 VM per job). Compression is default for all jobs in both VB3 and VB4 (Optimal). **Seems VB4 backups are much smaller** than equivalent VB3 backups.”

Reported Speed in Numbers

Full Backup

| VM Size | Processing Speed (3.1) | Processing Speed (4.0) | Hardware |
|-------------------------|------------------------|------------------------|------------------|
| 24 GB thin (8GB actual) | | 190MB/s | Dell/EMC CX4-240 |

Incremental Backup

| VM Size | Processing Speed (3.1) | Processing Speed (4.0) | Hardware |
|---------------------|------------------------|---|--|
| | | 60MB/s Incremental backup takes 4 minutes | Exchange server, actual server that has many users changing data |
| | 1 hour and 15 minutes | 291MB/s (4 minutes) | |
| 401.00 GB | 32 MB/s | 322 MB/s | |
| 15 VMs, about 500GB | 60-68MB/s | ~350-400MB/s | Dell Equallogic PS5000 |
| 149.03 GB | 180 MB/s | 516 MB/s | |
| 666GB | | 793 MB/s | |
| 670GB flat | | ~ 800MB/s (13 minutes) | Dell/EMC CX4-240 |
| 232.88 GB | 190 MB/s | 830 MB/s | |
| 1.02 TB | | 6 GB/s | |
| 350.00 GB | | 8 GB/s | Dell R710 Dual X5550 2.66GHz CPUs 12GB RAM, DDR3, Windows Server 2008 x64 |

Full Replication

| VM Size | Processing Speed (3.1) | Processing Speed (4.0) | Hardware |
|---------------------|------------------------|------------------------|------------------------|
| 15 VMs, about 500GB | 56MB/s | 80MB/s | Dell Equallogic PS5000 |

Incremental Replication

| VM Size | Processing Speed (3.1) | Processing Speed (4.0) | Hardware |
|---------|------------------------|------------------------|------------------------|
| 32GB VM | | 369MB/s (89sec) | Dell Equallogic PS5000 |

All quotes are taken from the Veeam Community Forums <http://www.veeam.com/forums/>

U.S. Headquarters
6479 Reflections Drive,
Suite 200
Columbus, Ohio 43017

Phone: +1-614-339-8200
Fax: +1-614-675-9494

EMEA Headquarters
400 Thames Valley Park
Thames Valley Park Drive
Reading, Berkshire, UK, RG6 1PT

Phone: +44 (0) 1276-804-501
Fax: +44 (0) 1276-804-676