



Vembu BDR Suite v3.8.0 GA - Release Notes

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With enhanced features and fixes boosting stability and performance, Vembu BDR Suite v3.8.0 is now available for production environment.

Get started to protect your Virtual (VMware vSphere and Microsoft Hyper-V) and Physical (Windows Server & Desktops) environments with Vembu BDR Suite v3.8.0. Save more in storage with our GFS retention policies.

New Features in Vembu BDR Suite v3.8.0

Disk Image Backup in BDR

Disk Image Backups can now be configured and managed via Vembu BDR Server. Relying on proxy agents is no longer required, unless it's a distributed deployment which require individual proxy agent installation.

FLR for Backup/Replication

File Level Recovery (FLR) is now available for both backup and replication jobs where user can choose specific files and folders from VMware/Hyper-V/Disk Image backups and VMware replication, to be restored in a quick fashion.

Seed Load Backup data to OffsiteDR

Storing copy of backup data for DR requirements is now an easy task to be accomplished by seed loading backup server data to desired offsite data center. This save loads of time and bandwidth from being consumed.

Auto Authorization

Enabling Auto authorization in Vembu BDR allows proxy agents to get registered to backup server using unique registration key generated by respective BDR server.

Encryption Settings

Users can now provide additional security to their disk based backup jobs by assigning custom-password to backup server, such that all their backup data will be encrypted and can be restored/accessed only by providing the custom-password.

Email Enhancements

Monitoring backup tasks in Vembu proxy agents and Vembu OffsiteDR is now simplified with the addition of Email reports. Success/Failure reports can now be configured to be mailed to separate Email IDs for efficient management.

In addition, monitoring integrity of image backups is also simplified with the addition of verification reports where boot image of each incremental of a backup job will be Email-ed as per configuration.

Storage Pooling

Storage management in Vembu BDR is now upgraded to storage pooling which is easy to manage and scalable as well. In addition, option to allocate storage pools for individual backups and groups is also available.

Major features in Vembu BDR Suite

Agentless VMware Backup and Replication

Vembu designed VMware backup protects vSphere and vCenter environments using VMware vStorage APIs (VADP). Users can backup and replicate unlimited VMs from VMware vSphere ESXi hosts without installing any agents inside VMs. Direct Hot-Add and SAN transport mode provides faster data transfer speed with less resource utilization. VMBackup will auto analyze the VMware environment and assigns the appropriate data transfer mode.

Agentless Microsoft Hyper-V Backup with Changed Block Tracking Incremental

Backup VMs running in a Hyper-V host without installing agent on individual VMs. Vembu's proprietary Hyper-V CBT driver tracks the changed blocks in an efficient manner and runs incremental backups 5X faster!

Disk Image Backup for Windows Servers and Workstations deployed in Physical Environments

Backup entire image of physical Windows Servers and Workstations which includes operating system, application and user data in a periodic fashion which can be disaster recovered to same or new hardware as entire machines and can also instant accessed in any virtual environment via quick boot options.

File & Application Backup for Windows, Linux and Mac

Vembu supports file and application level backup for all Windows, Linux and Mac operating system running machines. Backup support to system folders such as My Documents, My Photos, Desktop, Browsers and etc., is also provided.

Application-Aware Image Backups

Vembu use application-specific VSS writers to take consistent snapshots of highly transactional applications like Microsoft Exchange, SQL Server, Active Directory and SharePoint during VM and disk image backup. Transaction log files are truncated at the end of each successful backup schedule.

Basic and Advanced (GFS) Retention Policies

The Multilevel GFS retention reduces the time taken to restore backed up machines and most importantly reduces the size of image files in storage location. It also helps to avoid long chains of incrementals, ensuring safety of backup data and allows you to meet the requirements of your retention policy.

Automatic Backups Verification

Vembu BDR Suite image verification process ensures that disk image backup data (physical disk image, vmware and hyper-v backups) are in a bootable state. The integrity of backup data can be easily verified by monitoring the screenshots of the boot screen everyday.

Advanced Reverse Incremental with Any-Point-In-Time Full

Since every incremental is a self-sufficient snapshot with pointers to the blocks in VHFS, any incremental is instantaneously available as a full backup. There is no extra processing to restore an incremental backup compared to a full backup (no need for a merge).

Quick VM Recovery

This provides the flexibility to boot any incremental VM and physical machine disk image backup instantly. For Windows based BDR backup servers, machines are recovered instantly with Microsoft Hyper-V. In the case of Linux based BDR backup servers, Quick VM recovery is done with the help of KVM.

Permanent VM Recovery

The backed up VMware and Hyper-V VMs can be permanently recovered to the same or different hosts after any major disaster or VM crash.

Failover and Failback

The replicated VMware VMs from the target hosts can be instantly failover on target host during VM crash. Also, it can be failbacked to the source ESXi host at anytime.

Bare-metal Recovery

The entire crashed physical system can be restored to same hardware or new RAW hardware by using Vembu Recovery CD.

Vembu Universal Explorer

Vembu developed an exclusive free tool called Vembu Universal Explorer to instantly recover the individual Microsoft application items from the backed up data. Be it physical or virtual machine data, Vembu Universal Explorer recovers application items from Microsoft Exchange, SharePoint, SQL and Active Directory without restoring the entire VM backup and disk image backup.

VMware Disk Level Recovery

VMware disk level restore allows you to restore only required disks during recovery instead of the entire VM. You can essentially restore any specific disks to the same VM or a different one.

Restore VMware, Hyper-V and Physical Windows Disk Image Backups in VHD,VHDX, VMDK, Flat-VMDK and RAW formats

Since VMware, Hyper-V and Physical Windows Disk Image backups are stored at block level in a neutral format, Vembu BDR Suite makes it possible to instantly restore any incremental backup in any virtual disk format including VHD, VHDX, VMDK, VMDK-FLAT or IMG.

Rebuild Vembu BDR Server After a Disaster

There are endless reasons why an OS can get corrupted, resulting in a disaster if you have not backed up your server machine. Vembu BDR has the ability to reconstruct all the backup metadata information from storage repositories and restore the entire backup server setup to its previous state.

Free Edition Support

Vembu introduces Free Edition in v3.7.0 release. So, users can now backup VMware, Hyper-V and Physical Windows Server with limited features at free of cost after trial period.

System Requirements

Vembu BDR Backup Server

OS	Microsoft Windows Server 2016 Microsoft Windows Server 2012 R2 Microsoft Windows Server 2012 Microsoft Windows Server 2008 R2 Microsoft Windows 10 Ubuntu 16.04 LTS Ubuntu 14.04 LTS Ubuntu 12.04 LTS
Architecture	64 bit only
Memory	Minimum: 8 GB Recommended: 16 GB
CPU	Minimum: Quad Core Xenon Processor Recommended: Octa Core Dual Processor
Meta Data Storage	10% of the planned total backup data size.
Network Card	1 Gbps & above
Browser	IE v11, Firefox v28 & above and Chrome v34 & above

Vembu OffsiteDR Server

OS	Microsoft Windows Server 2016 Microsoft Windows Server 2012 R2 Microsoft Windows Server 2012 Microsoft Windows Server 2008 R2 Microsoft Windows 10 Ubuntu 16.04 LTS Ubuntu 14.04 LTS Ubuntu 12.04 LTS
Architecture	64 bit only
Memory	Minimum: 8 GB Recommended: 16 GB
CPU	Minimum: Quad Core Xenon Processor Recommended: Octa Core Dual Processor
Meta Data Storage	10% of the planned total backup data size.
Network Card	1 Gbps & above
Browser	IE v11, Firefox v28 & above and Chrome v34 & above

VMware vSphere Infrastructure

Platform	VMware vSphere 6.x VMware vSphere 5.x VMware vSphere 4.x
Hypervisor	ESX(i) 6.x ESX(i) 5.x ESX(i) 4.x
Management Server	vCenter Server 6.x vCenter Server 5.x vCenter Server 4.x

Microsoft Hyper-V Infrastructure

Platform	Microsoft Windows Server 2016 Microsoft Windows Server 2012 R2 Core Microsoft Windows Server 2012 Microsoft Windows Server 2012 R2 Microsoft Windows Server 2008 R2 Core Microsoft Windows Server 2008 R2
Hypervisor	Microsoft Windows Server Hyper-V 2016 Microsoft Windows Server Hyper-V 2012 R2 Microsoft Windows Server Hyper-V 2012 Microsoft Windows Server Hyper-V 2008 R2

Disk Image Backup for Physical Windows Environment

Supported OS	Microsoft Windows Server 2016 Microsoft Windows Server 2012 R2 Microsoft Windows Server 2012 Microsoft Windows Server 2008 R2 Microsoft Windows Server 2008 Microsoft Windows Server 2003 R2 SP2 Microsoft Windows Server 2003 SP2 Microsoft Windows 10 Microsoft Windows 8 Microsoft Windows 7 Microsoft Windows Vista Microsoft Windows XP SP2
Memory	Minimum: 2 GB Recommended: 4 GB
CPU	Dual Core Processor
Browser	IE v11, Firefox v28 & above and Chrome v34 & above

Download Installer

Download Vembu BDR Backup Server installer from the following URL:

<https://www.vembu.com/vembu-bdr-suite-download/>

Technical Documentation

Refer following URL to refer Vembu BDR Suite technical documents:

<https://www.vembu.com/technical-documents/>

Known Issues & Limitations

VMware Backup:

1. VMware backup does not support backup of virtual machines with independent disks.
2. Application aware backup is not supported for 32 bit Guest OS.
3. Vembu VMBackup does not support VMware backup for ESXi free versions as VMware APIs themselves do not support ESXi free versions.
4. VMware backup is not supported if the virtual disk resides in RDM datastore.
5. VMware backup is not supported if the Guest OS hardware version is lower than v7.
6. In VMware backups, if any snapshot is reverted, further incremental backups will fail.
7. To use VMware Hot-Add Data Transfer mode, the agent must be installed on the Virtual Machine on the same ESXi server where the source VMs reside.
8. If the proxy VM in which the backup agent is running is on a VFMS3 datastore, the volume on the proxy VM should be formatted with appropriate block size given below, depending on the maximum disk size of the source VM(s).
 - 1MB block size – support up to 256GB
 - 4MB block size – Support up to 1024GB
 - 8MB block size – Support up to 2048GB
9. The disks that are to be Hot-Added must be SCSI. IDE drives are not compatible with hotadd.
10. The proxy VM should have installed VMware tools and VMware tools should be upgraded immediately to the available newer version.
11. Linux VM's are not supported for Network Mapping & IP ReMapping
12. GPT Format disk VM's are not supported for Network Mapping & IP ReMapping
13. Application aware backup requires administration privileges in OS drive for Tool installation.
14. Encrypted VM backup/replication is not supported for vSphere host v6.5.
15. VM backup/replication having VM name with special characters { } will fail with modular exception error.
16. VM backup/replication may fail with “VMware Modular exception error” in case of ESXi compatibility/permission issue with respect to vCenter.

VMware VM Replication with FailOver & FailBack:

1. CD/DVD drives of virtual machines will not be replicated to the target host.
2. Resizing virtual disks after initial replication in the primary site will result in replication job failure permanently. Users have to configure a new job again to perform replication.
3. Source VM's VMXNET3 ethernet adapter configuration will not be replicated to the replica VM.

4. If the initial replication job fails intermittently during replication, users have to delete the replica VM in the target site and create a new job to perform the replication.
5. The VM should not be manually powered off or powered on after the FailOver & FailBack respectively. This may leads to data lose.
6. If the FailBack fails intermittently, users have to delete the FailBack VM in the target site and try again.
7. Failback only the modified data after failover feature is not supported.
8. Once after Permanent FailOver & Commit FailBack the replica VM will be excluded from the replication job. The same should be configured again for replication.
9. IP Re-Mapping is not working for windows 7(32 bit) Professional Machine.
10. IPv6 configuration is not supported for IP ReMapping.
11. IPRe-Mapping option is not supported for VM Replication in Linux based Backup Servers.

Hyper-V Backup:

1. PowerShell should be installed in Hyper-V host machines to configure Hyper-V backup.
2. Guest VMs running operating systems which do not support VSS such as Microsoft Windows 2000, Windows NT 4.0, or Windows XP, Linux will remain in a saved state while the VSS snapshot is created.
3. Virtual machines without Hyper-V Integration Services installed will remain in a saved state while the VSS snapshot is created.
4. VMs running on Windows Server 2008 are not supported for backup.
5. VMs running on Windows 2008 R2 CSV environment are not supported for backup.
6. VMs with checkpoints (*.AVHD & *.AVHDx) will not be backed up. To perform backup, checkpoints need to be removed.
7. For application consistency VM backup, the Guest Machine should be installed with the latest Hyper-V integration services.
8. Incremental will not continue after moving virtual disks to new storage for the particular Guest machine.
9. Incremental will not continue after performing Live Migration for the particular Guest machine.
10. "To perform live restore, enable ps remoting in remote machine (Open Power shell command -> Execute the below command Enable-PSRemoting -force or refer to this link "" <https://technet.microsoft.com/en-us/library/hh849694.aspx>)".
11. Flat VMDK restore is not supported for Generation2 Guest Oses with more than 2TB disk.
12. Live restore with "Download as VHDx" is not supported on Windows Server 2008 R2 Remote machine.
13. Live Restore with "Download as VHD" is not supported for Generation2 Guest Oses with more than 2TB disk.
14. Live restore to Windows Server 2008 R2 and Windows Server 2012 is not supported for Generation 2 Guest Machines.

15. Performing Hyper-V backups in VMs is not supported.
16. Hyper-V agentless installation is not supported on machine where VMBackup Client installed.
17. While adding Hyper-V host, It's password shouldn't have single double quote("").

Disk Image Backup:

1. Disk image is not supported for two digit disks, for example, Disk10, Disk11 and so on.
2. Disk image backup is not supported for ReFS file size system.
3. If the disk drives are defragmented using 3rd party tools, further incremental disk image backups will fail with CHKDSK error.
4. In disk image plugin backup schedule, additional disk drives cannot be added or removed from the schedule once configured.
5. Disk Image backup may fail to backup or restore encrypted partitions or files.
6. For Quick VM Recovery only OS installed disk will be attached to the booted Hyper-V/KVM Virtual Machine.

File Level Recovery:

1. FLR for backups - Supported: Only NTFS file system and Not Supported: all other file systems such as FAT, ReFS etc.,
2. FLR for VM replication - Supported: NTFS, ReFS and FAT32 file systems only.
3. Volumes - Supported: Volumes with NTFS file system and Not Supported: If any one of the option [compression/encryption] is enabled in NTFS.
4. Dynamic Disks on Virtual Machines - Supported: Simple Volumes and Not supported: Striped/Spanned/Mirrored volumes.
5. FLR for VM Replication - Supported: Windows BDR server and Not Supported: Linux BDR server.
6. Virtual Machines - Supported: VMs running Windows OSES and Not Supported: VMs running any other OSES such as MAC, Linux etc.,

General:

1. Multithreaded Quick VM recovery process at the same time is not supported.
2. For VMware and Disk image backups, virtual machines created through Quick VM recovery will not contain network adapter settings. Users have to enable them manually.
3. VHD mount option is not supported for Linux based Backup Server
4. Folder level right-mouse-click option to mount a VHD file is disabled on Windows 2012 R2 server OS.
5. Vembu VMBackup Client tray service fails to start sometimes after automatic software update.
6. Storing MongoDB and MySQL metadata on LVM disks are not recommended.
7. Backup next schedule time will not be updated in List of jobs page if Backup fails due to Backup Mount scenario.
8. Quick booting via Hyper-V is not supported for Windows 2008 R2, Windows 2012 and Ubuntu Guest OSes with more than 2 TB disks.
9. For Vembu BDR server installed in Windows 2008 R2, following recovery options is not supported for Guest OSes having more than 2 TB disks: Quick VM recovery, file level recovery, image integrity check.
10. Booting IMG files having more than 2 TB disks is not supported in KVM (i.e) In Linux OSes.
11. Configuring networks during Quick VM recovery is currently supported for Hyper-V plugin only and Hyper-V integration services must be up-to-date for the process to successful IP assignment.
12. Configuring networks during Quick VM recovery is not supported in Vembu server for Windows 2008 R2 and Linux OSes.
13. Any change in disk exclusion rule for a configured backup job will be applied only when an additional full backup is scheduled.
14. Disks once excluded cannot be included back in already configured replication job.
15. To proceed with Quick VM recovery on ESXi, execute following command: 'net stop portmap' to stop 'Server NFS' service. Once done with requirement, make sure you re-enable the service.
16. If a NFS datastore is created via manual NFS share, make sure you disable it before proceeding with Quick VM recovery option.
17. Quick VM Recovery on ESXi is not supported for ESXi 4.1
18. Quick VM recovery via Hyper-V/KVM will attach 'Only Disk 0' on Vembu BDR server for Windows server: 2008 R2 and Windows 2012.
19. For hot add mode, if ESXi is attached to vCenter then hot add mode will not work.
20. If marked chunks are deleted before performing export in BDR server, then import process would fail in offsite DR server.

21. Additional full backup of already seeded backup will not be considered for Seed process.
22. When seed export task is in progress and if the target export folder is in open state - then appending timestamp at the end of export can be done, so future import will not work (For such cases, in order to import - need to append random timestamp to target folder location).
23. import/export process will fail, if target location have special characters in it.
24. Trying to Import seed data to offsite server with mapped drive will fail.
25. Trying to export to same location where sgstorage is available and space exceeded then error is no such file/folder found.
26. Import of Offsite Seed will block for task which has similar backup name under single task.
27. In FileLevelRecovery for VMware and Hyper-V backups, volume labels (like C:\) are not shown exactly as present in source machine and are replaced with IDs such as Volume1, Volume2 etc.
28. Need to enable the "Remote Registry" service (if disabled) or make sure it is running before start VembuIntegrationService installation.
29. For Desktop Operating System machine(s), need to install VembuIntegrationService manually.
30. For any client, if repair option is interrupted and trying the option again will result in new client installation.
31. Tray option will not be available, once after performing automatic s/w upgrade. Restarting the machine will make the tray option available.

Technical Support

For feedback, comments or issues, please call US: +1-512-256-8699
UK: +44-203-793-8668 or email at vembu-support@vembu.com.