Vembu BDR

Vembu BDR Suite Architecture and Deployment

VEMBU TECHNOLOGIES PARTNERS

vmware PARTNER TECHNOLOGY ALLIANCE

Microsoft GOLD CERTIFIED Partner

redhat TECHNOLOGY PARTNER

www.vembu.com

About Vembu Technologies

Vembu

Founded in 2002

HQ in Chennai, India

4000+ Channel Partners

Reached more than 60,000 businesses

70 % of our customers are from North America, 20% from Europe and the rest 10% from APAC

Introduction

Vembu BDR Suite

Vembu

Vembu BDR suite is an one stop solution to all your Backup and DR needs - catering to every requirement of small and midsize businesses.

VMBackup	Backup & Replication for VMware and Hyper-V
ImageBackup	Backup and Bare-metal recovery for Physical Windows Servers & Desktops
NetworkBackup	Backup solution for file/folders, applications like MS Exchange, SQL, SharePoint, AD, Outlook and MySQL etc.,
OnlineBackup	Backup solution for file/folders, applications like MS Exchange, SQL, SharePoint, AD, Outlook and etc. directly to Vembu Cloud
SaaSBackup	Backup Solution for SaaS Applications like Office 365 and Google Apps

Add-on Products

- **Vembu OffsiteDR** is an add-on service to Vembu BDR Backup Server. OffsiteDR enables you to keep additional copy of backup data on-site or off-site
- **Vembu CloudDR** provides ability to set up hybrid cloud environment where you can replicate additional backup copy to Vembu Cloud. So, you can keep one copy of your backup data in the Vembu BDR backup server in your data center and another copy in the Vembu Cloud
- **Vembu BDR360** helps you with 24/7 availability by providing the flexibility to monitor and manage all your Vembu BDR backup environments from a centralized portal
- **Vembu Universal Explorer** is an agent-less software which helps you to restore individual items from Microsoft Exchange, SQL Server, SharePoint and Active Directory instantly. This tool can be used for Instant Granular Recovery from Vembu BDR managed backups

Understanding RPO & RTO

Vembu

RTO (Recovery Time Objective)

Time duration to recover a backed up machine after disaster

Until which point in time you can recover the machine data after disaster

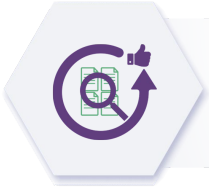
RPO (Recovery Point Objective)

Recovery Time Objectives (RTO)

Vembu

Vembu offers Industry best RTO which is less than 15 minutes.

Instant Virtual Machine Recovery



Instant File-Level Recovery

Failover and Failback

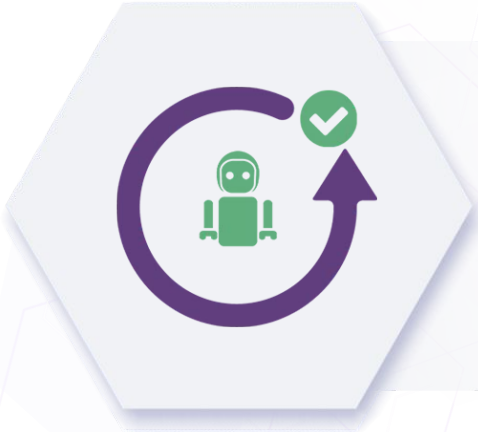
Explorer for Microsoft Exchange, SharePoint, SQL and Active Directory

Recovery Point Objective (RPO)

Vembu

Vembu offers near continuous data protection without affecting the production data center.

- Automated Backup & Replication scheduling
- Backup frequencies starts from 15 mins
- So you can assure RPO less than 15 mins



Backup Verification

Backup data should be recoverable. If not, it is worthless. Vembu provides the ability to run automatic backup verification for all backed up VMs

- Backup verification can be automated to run post completion of every backup schedule or once in a day.
- In the process, booting of backed up Virtual Machine will be carried out and screenshot of boot screen will be captured. This screenshot details will be sent to administrators via email.

Efficient Storage Management

Vembu

Vembu BDR Backup Server utilizes VembuHIVE™ file system to effectively manage storage repositories. VembuHIVE™ is an efficient cloud file system designed for large-scale backup and disaster recovery application with support for advanced use-cases. VembuHIVE™ can be defined as a File System for File Systems.

- Supports SAN, NAS and DAS
- Automatically scale up/out the storage devices
- In-built version control and error correction
- In-built Deduplication & Encryption

Migration Plan (P2V and V2V)

Vembu

Having plan to migrate physical machines to virtual environments (VMware/Hyper-V)? Looking for a cost-effective solution with less downtime offering and less workload?

- Vembu has in built solution to all your migration plans
- Vembu supports instant creation of VMDK, VHD and RAW files for backed up virtual/physical machines; So that users can instantly start migrations P2V(Physical to virtual) and V2V(between virtual environments)

Product Overview

Vembu BDR Suite

Vembu

VMBackup

ImageBackup

NetworkBackup

OnlineBackup

SaasBackup

- Vembu BDR suite is an one stop solution to all your Backup and DR needs, catering to every requirement of small, medium and enterprise businesses
- Backup and replicate VMware vSphere, Microsoft Hyper-V, Microsoft Windows Physical Servers & Desktops, Files/Folders, MS Exchange, MS SQL and etc
- Supports on-premises, remote, cloud and hybrid cloud deployments

Vembu VMBackup

Vembu

- It caters to the needs of virtualized (VMware & Hyper-V) data centers
- Agentless VMware Image Backup and Replication with high-performance snapshots
- Agentless Microsoft Hyper-V Image Backup with forever incrementals
- Optional Cloud Backup for Data Redundancy and Disaster Recovery
- Point-in-time persistent Instant boot of backed up VMs
- Instant VM recovery in few minute
- Instant File-level Recovery
- Failover and Failback
- Instant granular recovery support for Exchange, SQL, SharePoint and AD

Vembu ImageBackup

Servers Desktops Laptops

- It caters to the needs of data centers which have physical windows servers
- Physical Server Image Backup for Microsoft Windows Servers & Workstations
- Application aware processing
- Optional Cloud Backup for Data Redundancy and Disaster Recovery
- Instant VM recovery on any hypervisors in few minute
- Instant File-level Recovery
- Instant granular recovery support for Exchange, SQL, SharePoint and AD
- Bare-metal Recovery

Vembu NetworkBackup

- Endpoint backup for Windows, Mac & Linux
- Supports backup of File Servers and Applications (MS Exchange, SQL, SharePoint, Active Directory, Outlook and etc.)
- Offsite Backup deployment support for Remote Office & Branch Offices
- Support for Hybrid Cloud (On-premise with optional cloud storage) deployment
- AES 256-bit Encryption, both at-rest and in-flight
- Advanced Retention Policies
- Automatic Scheduling and Bandwidth Throttling for Backups

Vembu OnlineBackup

- Backup Business Critical Data directly to Secure Vembu Cloud
- Backup desktop/laptops, File Servers, Microsoft Exchange, SQL-Server, SharePoint, Outlook, Active Directory etc. directly to Vembu Cloud
- One solution for your Windows, Mac & Linux
- Restore anywhere
- End-to-end encryption
- Perform granular recovery of files, folders, emails, mailboxes and tables

Vembu SaaSBackup

Google Apps:

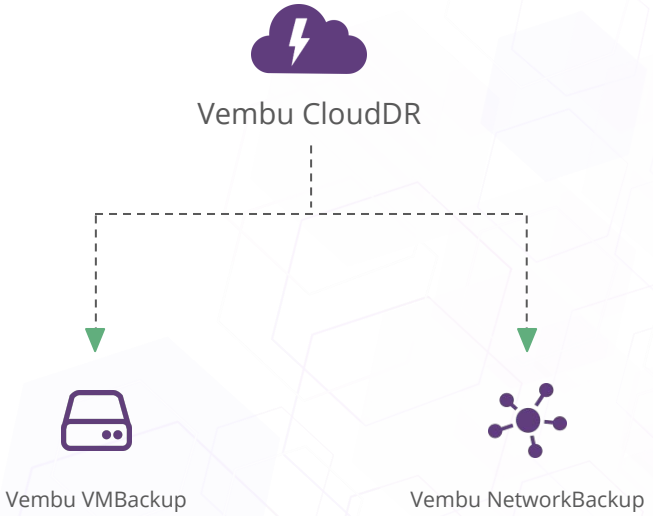
- All user's entire mailbox folders (Inbox, Sent-Items, Deleted, Drafts, user created labels)
- Chat, Contacts and Calendars
- All documents from Google Drive

Office 365

- All user's entire mailbox folders (Inbox, Sent-Items, Deleted, Drafts, user created labels)
- Contacts
- Calendars

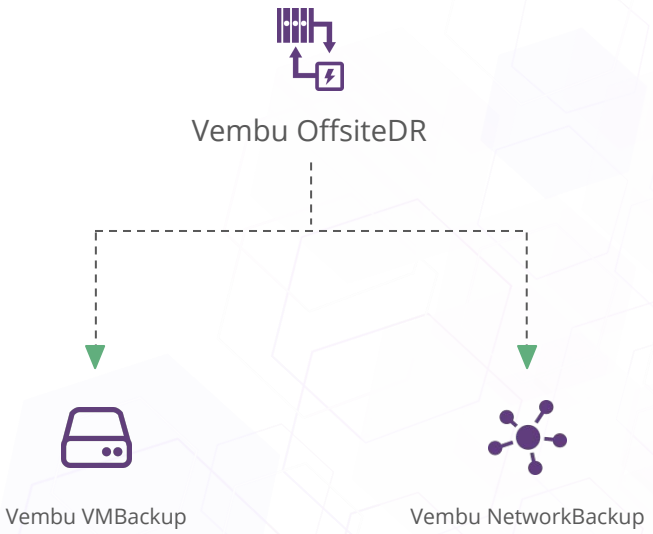
Vembu CloudDR

- You can keep another copy of the backup data on Vembu Cloud
- Vembu Cloud is deployed on Amazon Web Services across all continents
- Vembu Cloud Servers are running in clustered environment for high availability
- Restore anywhere and anytime
- Backup data is encrypted while transferring over WAN and at rest



Vembu OffsiteDR

- Deploy DR site in your own data center
- Send additional copy of the backup data to your own data center for DR
- Syncs backup data immediately
- Control over data transfer - Automatic scheduling and Bandwidth throttling
- Supports Instant VM Recovery and Instant file level recovery
- Rebuild Vembu BDR Backup Server from the secondary storage repositories

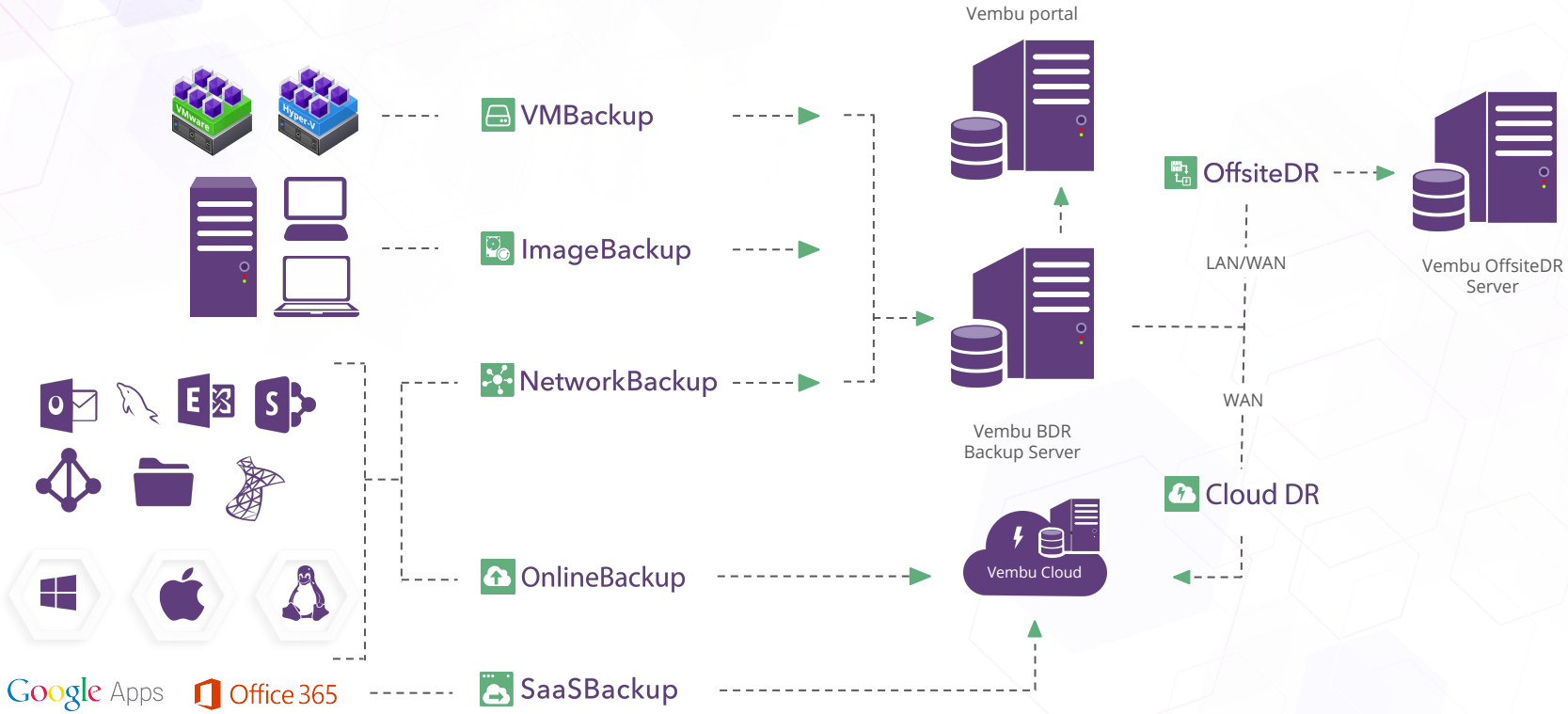


Vembu Recovery Tools

- Vembu Explorer for Microsoft Exchange
- Vembu Explorer for Microsoft SQL
- Vembu Explorer for Microsoft SharePoint
- Vembu Explorer for Microsoft Active Directory
- Vembu Recovery CD for Physical Windows Servers & Workstations

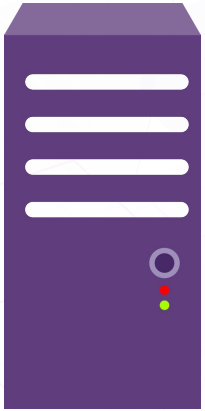
Architecture

Vembu BDR Suite - Architecture



Vembu BDR Backup Server

- BDR Backup Server can be installed on Windows and Ubuntu OS
- It can be installed on Windows or Linux based Physical or Virtual machines
- Virtual Appliance available for VMware vSphere & Microsoft Hyper-V
- VMware and Hyper-V backups can be configured and managed from BDR Backup Server GUI
- Handles backups from Vembu VMBackup, ImageBackup and NetworkBackup agents
- Redundant copy of the backup data can be sent to their own data center (Vembu OffsiteDR) or to Vembu Cloud (Vembu CloudDR) - Optional
- Manage Storage Repositories
- Runs backup recovery verifications
- Perform Disaster Recoveries



Vembu BDR Backup Server

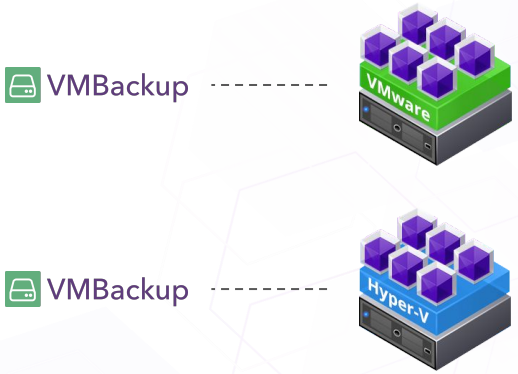
Storage Repositories

- Works with SAN, NAS and DAS
- Encrypts & Compress the backed up data
- Easily scale up when storage increase
- Since Vembu uses it's own file system (VembuHIVE File System), you can use various file systems in the same repository for Vembu Backup Server
- Backed up data stored in the form of multiple chunk files, to improve the disk & application performance

Storage Repositories

Vembu VMBackup Client (proxy)

- This client is used to backup VMware and Hyper-V virtual machines
- It works as a proxy between Hypervisors and Vembu BDR Backup Server
- Backup VM data from production storage; applies compression and encryption before sending the data to Vembu BDR Backup Server
- Replicates VM data from one VMware vSphere/Microsoft Hyper-V to another for High Availability
- Agent can be installed on Windows based physical or virtual machine



Vembu ImageBackup Client (proxy)

- This client is used to backup Microsoft Windows Server, Desktops and Laptops
- ImageBackup Client agent needs to be installed on each physical servers and desktops which needs to backup
- It creates the snapshot of the selected disks by using Microsoft VSS
- The snapshot of the full disk will be then compressed and encrypted before it leaving the source server or desktop
- Also, the client installs a driver to track the changes after full backup and as per the incremental scheduling frequency, the modifications will be transferred to the storage repositories
- Agent can be installed on Windows based physical or virtual machine

Vembu NetworkBackup Client (proxy)

- Granular Backup - This client is used to backup selected files/folders and applications such as MS Exchange, SQL, SharePoint, AD & Outlook, etc..
- Supports backing up files from network shares
- This client agent needs to be installed on machines having files and applications
- Backup selected files/folders or applications and applies compression, encryption before sending the data to Vembu Backup Server
- Agent can be installed on Windows, Linux and Mac based physical or virtual machines

Vembu OnlineBackup Client (proxy)

- Granular Backup - This client is used to backup selected files/folders and applications such as MS Exchange, SQL, SharePoint, AD & Outlook, etc.. directly to Vembu Cloud over WAN
- Supports backing up files from network shares
- Backup data will get encrypted before it leaves client machine
- This client agent needs to be installed on the machines which have files and applications
- Agent can be installed on Windows, Linux and Mac based physical or virtual machines

Vembu SaaSBackup

- Backup Google Apps and Microsoft Office 365
- You just need to signup an account in Vembu Cloud
- SaaSBackup agent will backup the selected user data by communicating with Google Apps/Office 365 by using secured connection
- You can restore the backed up data at anytime and anywhere

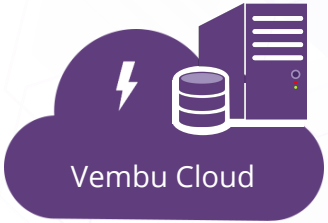
Vembu OffsiteDR

- Instantly transfer backup data from Vembu BDR Backup Server to the Vembu OffsiteDR server
- Allows you to set up Disaster Recovery server in your data center
- Accepts backup data from multiple Vembu BDR Backup Servers
- Rebuild Vembu BDR Backup Server from secondary storage repositories
- Offer DRaaS by running the backed up images in your cloud during disaster
- Vembu OffsiteDR Server can be installed on Windows and Linux based Virtual or Physical machines
- Virtual appliances available for VMware vSphere and Microsoft Hyper-V

Vembu OffsiteDR server

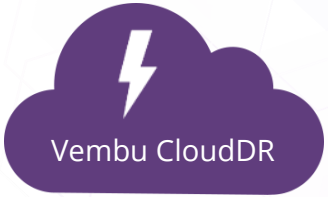
Vembu Cloud

- Vembu Cloud Servers are running on highly secured Amazon Web Services across all continents
- The servers will be automatically scaled while receiving huge loads
- The servers are running in clustered environment to avoid backup interruptions
- Vembu Cloud Servers accepts backup data directly from Vembu OnlineBackup clients and Vembu BDR Backup Servers as well
- From centralized Vembu Customer Portal, you can manage and monitor all your backup jobs



Vembu CloudDR

- If customers are interested in keeping a copy of their backup data in a secured cloud environment, they can send to Vembu Cloud from Vembu BDR Server
- Vembu CloudDR servers are running in Vembu Cloud and handles backup requests from Vembu BDR Backup Server
- You can restore the data from Vembu Cloud anytime and anywhere
- Backup data instantly syncs to Vembu CloudDR server once stored in primary repository
- Archiving older data in Vembu Cloud comparatively invloves low cost



Vembu Universal Recovery Tools

- Single tool that helps to recover individual items from various Microsoft Application backups: Exchange, SQL, SharePoint and AD
- Instant restores emails/mailboxes/exchange stores from Microsoft Exchange
- Instant restore Microsoft SQL databases and tables
- Supports document level restore for Microsoft SharePoint
- Supports granular recovery for Microsoft Active Directory
- Individual recovery tools are also available for each application

Vembu Portal

- Every customer has to sign up for Vembu Portal account to activate their Vembu BDR Suite of products after the trial period
- Purchase and Renew licenses
- Manage purchased licenses
- Track all your purchase and billing information
- Activate Vembu BDR Backup Server and Vembu OffsiteDR Server after trial period with Vembu Portal account

Vembu Portal

System Requirements

Vembu BDR Backup Server

- Supported Operating Systems
  - Microsoft Windows Server 2012 R2 (64-bit)
  - Microsoft Windows Server 2012 (64-bit)
  - Microsoft Windows Server 2008 R2 (64-bit)
  - Ubuntu 12.04 LTS (64-bit)
  - Ubuntu 14.04 LTS (64-bit)
- Minimum Requirements for Backup Server
  - Memory: 8 GB or higher
  - Processor: Quad-Core or higher
  - Architecture: x64-bit
- Recommended Specifications for Backup Server
  - Memory: 16 GB or higher
  - Processor: Quad-Core or higher
  - Architecture: x64-bit

Vembu VMBackup Client

- Supported VMware vSphere for VM Image Backup
  - ESX(i) 6.0, 5.x and 4.0
  - vCenter 6.0 and 5.x
- Supported Windows Hyper-V for VM Image Backup
  - Microsoft Windows Server 2012 R2
  - Microsoft Windows Server 2012
  - Microsoft Windows Server 2008 R2
- Supported Windows for Physical Image Backup
  - Microsoft Windows Server 2012 R2, 2012
  - Microsoft Windows Server 2008 R2, 2008 SP2 and later
  - Microsoft Windows Server 2003 SP2 and later
  - Microsoft Windows SBS 2011, 2008, 2003
  - Microsoft Windows 7, Vista, XP SP2

Vembu NetworkBackup Client

- Supported Applications for Backup
  - Microsoft Exchange Server 2013, 2010, 2007
  - Microsoft Exchange Server DAG 2013, 2010
  - SQL Server 2012, 2008, 2005
  - Microsoft SharePoint Server 2013, 2010, 2007, 2003
  - MySQL 5.0 and later
  - Microsoft Outlook 2013, 2010, 2007
- Supported Desktops / Laptops for Backup
  - Windows 8, 7, XP, Vista
  - Mac OS X 10.5 and later for Intel PC's

Vembu NetworkBackup Client (Cont...)

- Supported Servers for Backup
  - Windows Server 2012 R2, 2012
  - Windows Server 2008 R2, 2008 SP2 and later
  - Windows Server 2003 SP2 and later
  - Windows SBS 2011, 2008, 2003
  - RedHat Enterprise Linux 5 and later
  - Debian Linux 5.0 and later
  - CentOS 5.2 and later
  - CloudLinux 5.10 and later
  - Fedora11 and later
  - Ubuntu 10.04 and later
  - Gentoo

Vembu OnlineBackup Client

- Supported Applications for Backup
  - Microsoft Exchange Server 2013, 2010, 2007
  - Microsoft Exchange Server DAG 2013, 2010
  - SQL Server 2012, 2008, 2005
  - Microsoft SharePoint Server 2013, 2010, 2007, 2003
  - MySQL 5.0 and later
  - Microsoft Outlook 2013, 2010, 2007

- Supported Applications for Backup
  - Windows 8, 7, XP, Vista
  - Mac OS X 10.5 and later for Intel PC's

Vembu OnlineBackup Client (Cont...)

- Supported Servers for Backup
  - Windows Server 2012 R2, 2012
  - Windows Server 2008 R2, 2008 SP2 and later
  - Windows Server 2003 SP2 and later
  - Windows SBS 2011, 2008, 2003
  - RedHat Enterprise Linux 5 and later
  - Debian Linux 5.0 and later
  - CentOS 5.2 and later
  - CloudLinux 5.10 and later
  - Fedora11 and later
  - Ubuntu 10.04 and later
  - Gentoo

Vembu OffsiteDR Server

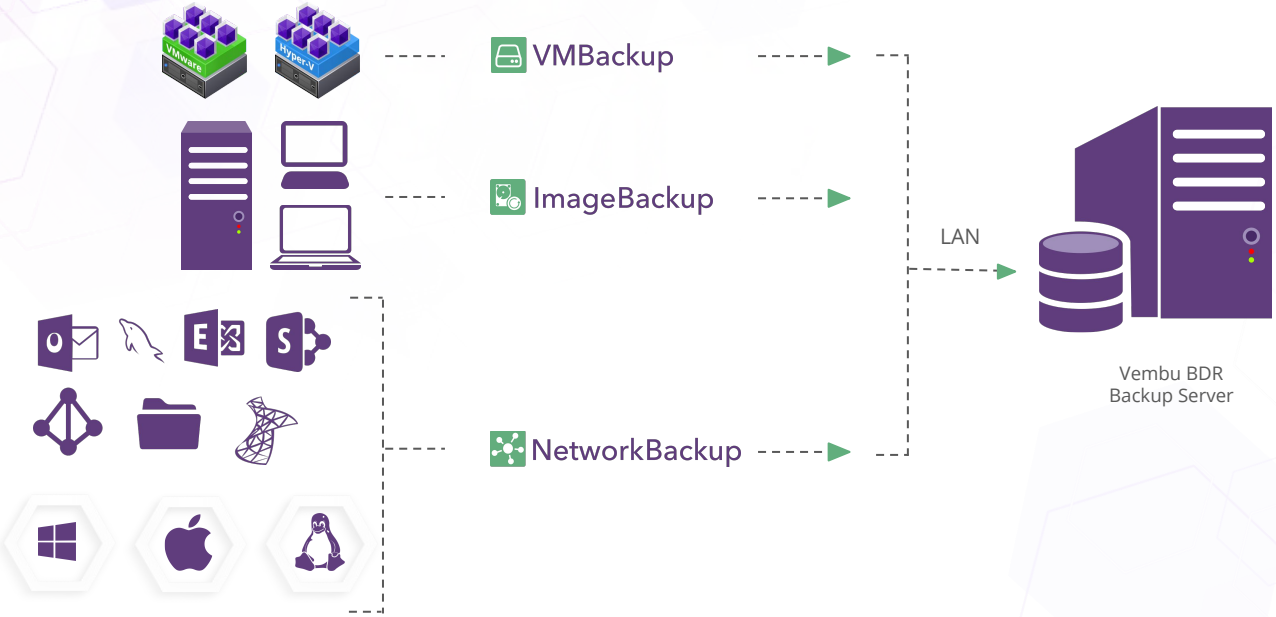
- Supported Operating Systems
  - Microsoft Windows Server 2012 R2 (64-bit)
  - Microsoft Windows Server 2012 (64-bit)
  - Microsoft Windows Server 2008 R2 (64-bit)
  - Ubuntu 12.04 LTS (64-bit)
  - Ubuntu 14.04 LTS (64-bit)
- Minimum Requirements for OffsiteDR server
  - Memory: 8 GB or higher
  - Processor: Quad-Core or higher
  - Architecture: x64-bit
- Recommended Specifications for OffsiteDR server
  - Memory: 16 GB or higher
  - Processor: Quad-Core or higher
  - Architecture: x64-bit

Deployment

Physical or Virtual ?

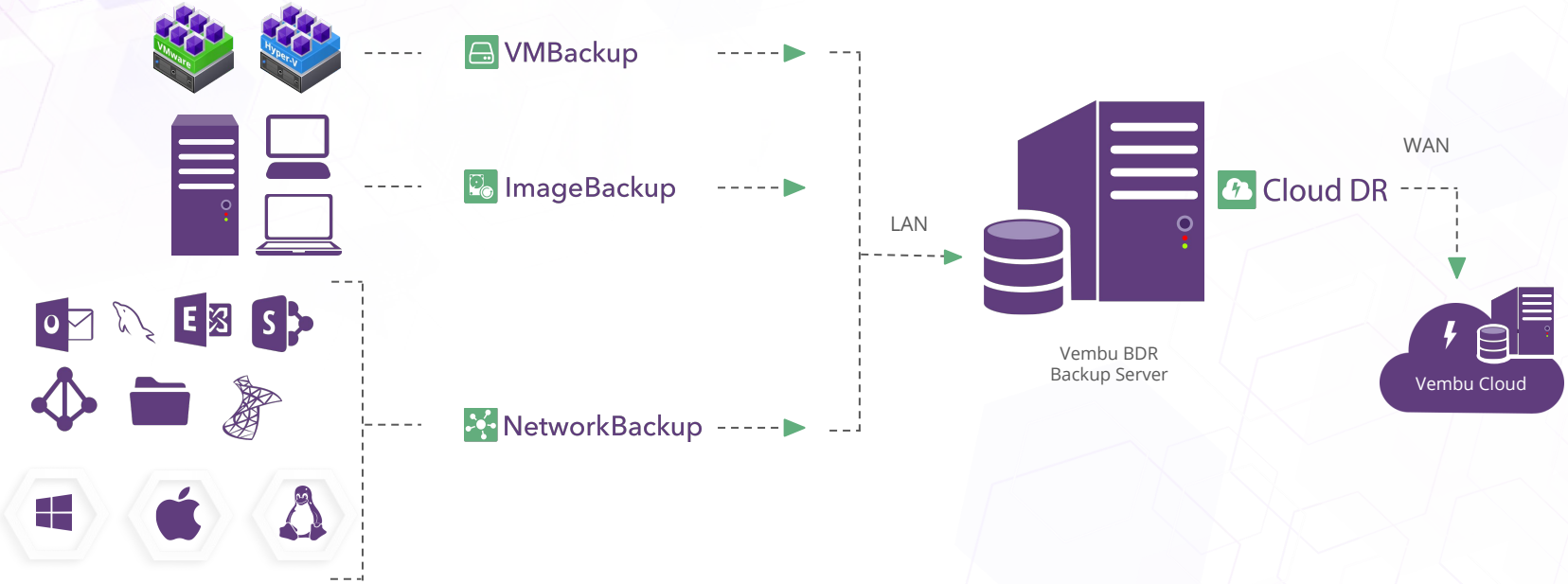
- Vembu BDR Backup Server, OffsiteDR Server, VMBackup Client, ImageBackup Client, NetworkBackup Client and OnlineBackup Clients can be installed on physical or virtual machines
- It depends on size of the environment
- Small business may use virtual machine for Vembu BDR backup server and OffsiteDR server
- Recommending physical machine for Vembu BDR backup server and OffsiteDR server to get instant boot feature

On-premises Deployment



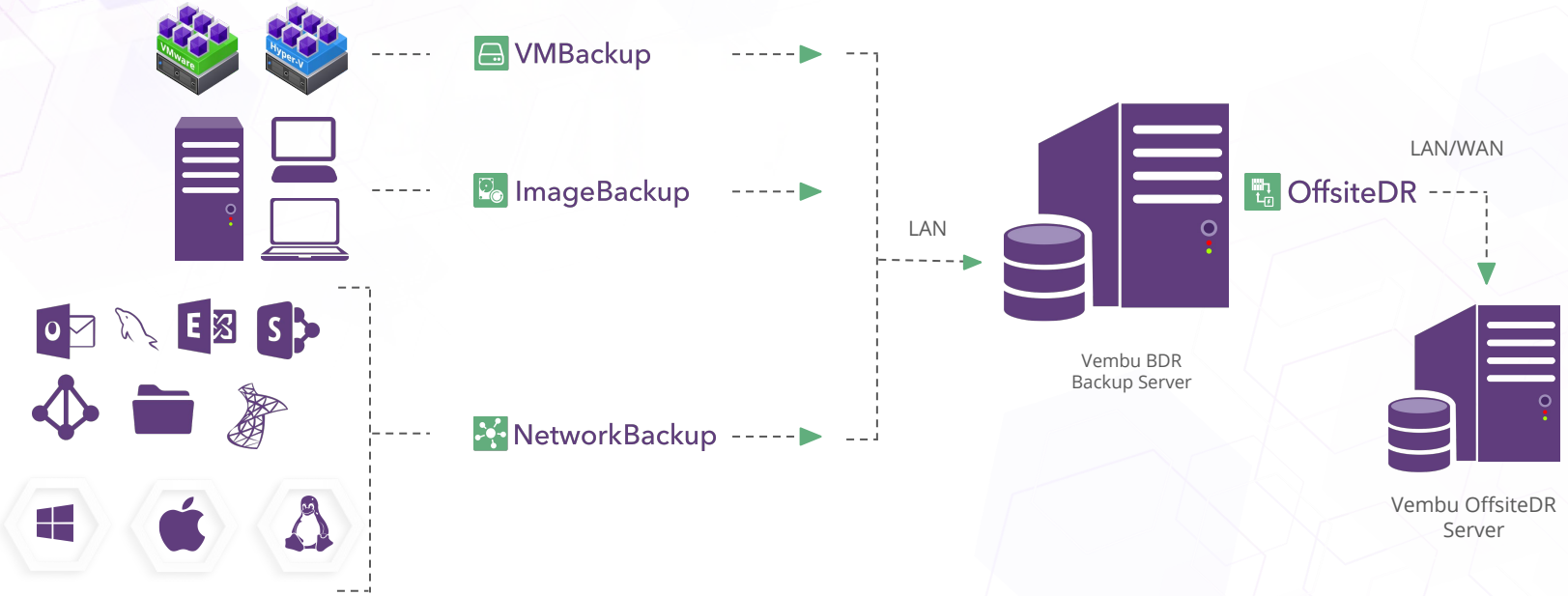
- Setup DR site in your local environment and backup via LAN connections
- Backup VMs, Physical Machines and applications to the local storage repositories

Hybrid Deployment - Scenario 1 (CloudDR)



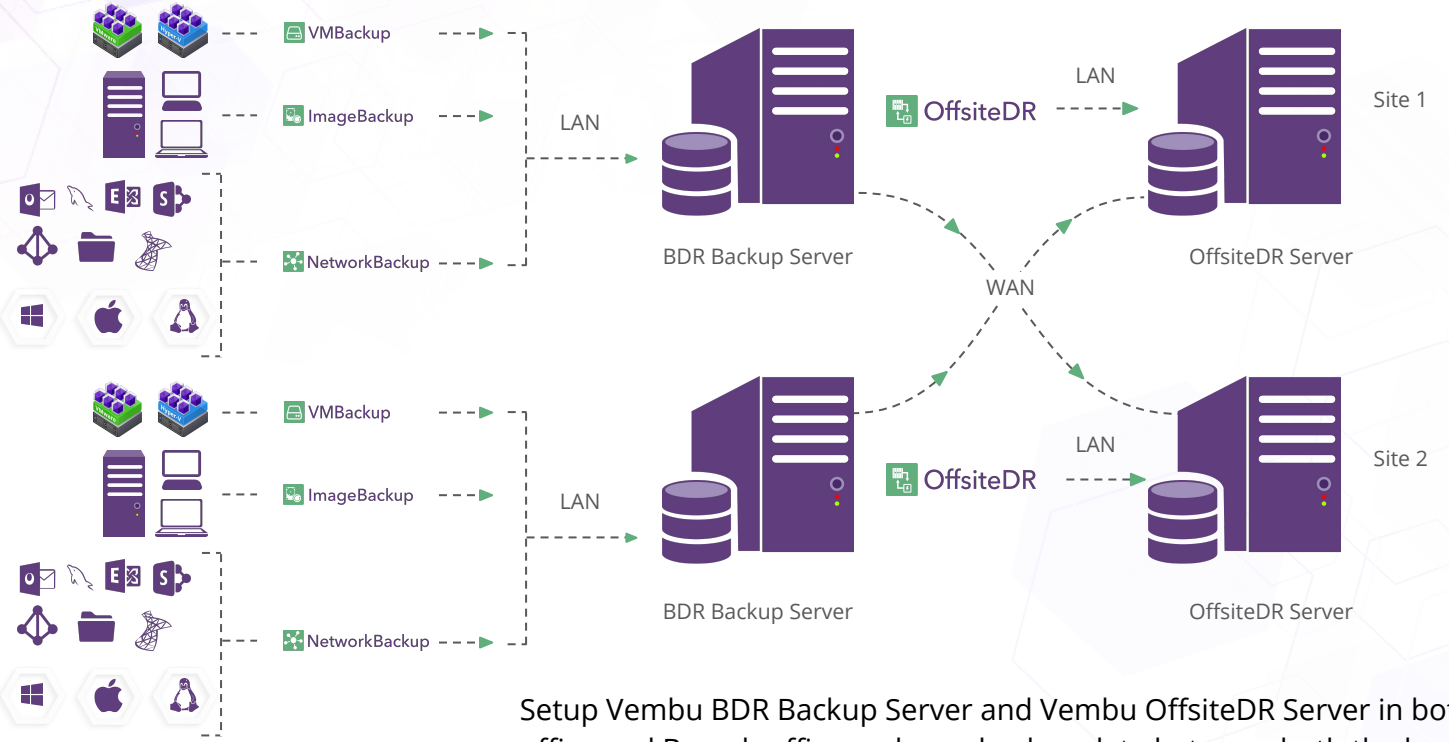
Setup DR site in your local environment and backup via LAN connections and send another copy of backup data to Vembu Cloud via WAN connection by signing up to Vembu CloudDR service

Hybrid Deployment - Scenario 2 (OffsiteDR)



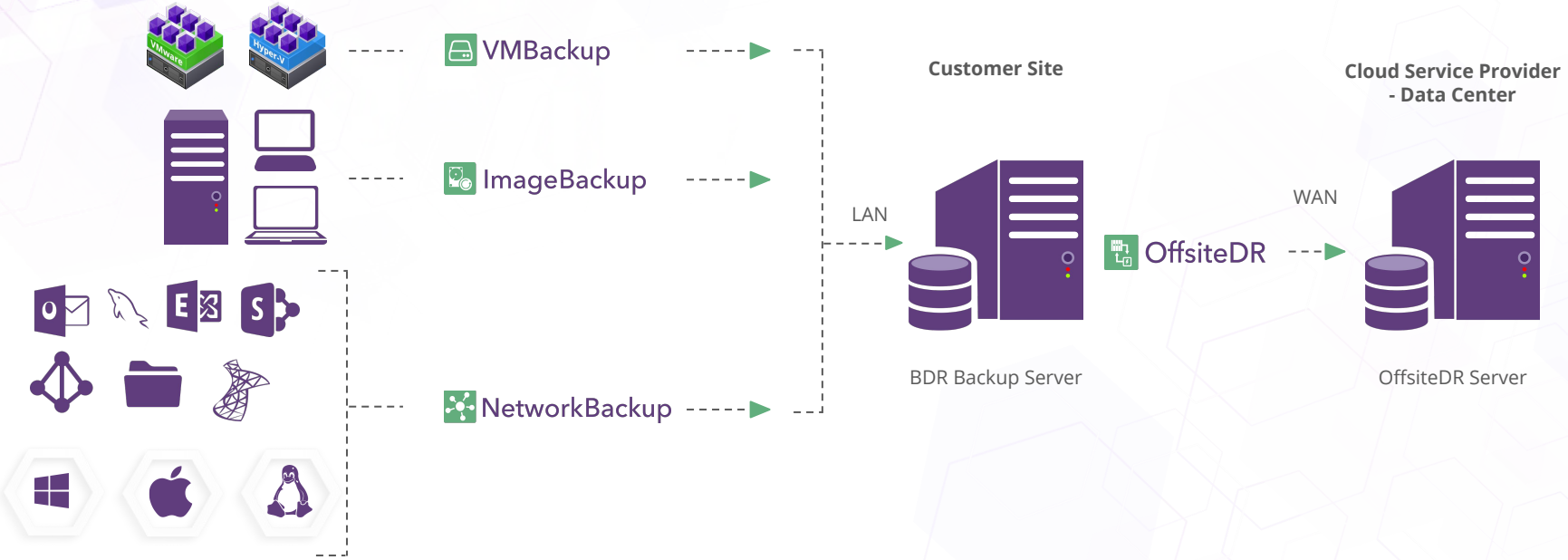
Setup DR site in your local environment and backup via LAN connections and send another copy of backup data to your Own Cloud via LAN/WAN connection by deploying Vembu OffsiteDR Server

Remote office/Branch office



Setup Vembu BDR Backup Server and Vembu OffsiteDR Server in both Remote office and Branch office and sync backup data between both the locations

Offsite (or) Remote Deployment (CSP)

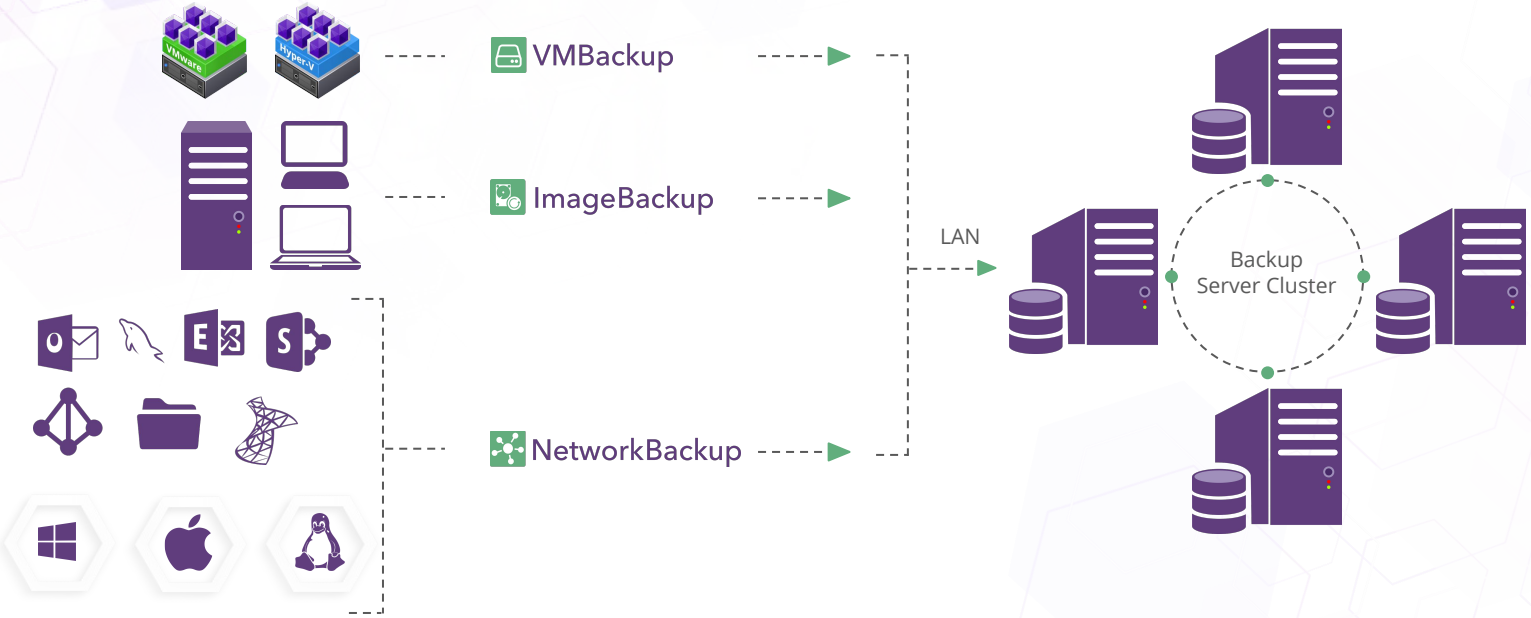


Cloud Service Providers can host Vembu OffsiteDR Server on their data center and backup another copy of data from Vembu BDR Backup Servers to their data center over WAN

Cloud Backup

- Vembu Cloud Servers are hosted in Amazon Web Services
- Install the client agent and backup directly to Vembu Cloud via WAN

Backup Server Clustering



- You can easily scale up the backup server when backup load increases
- Backup requests will be equally shared between each backup servers

License

License

- Vembu charges for VMware and Hyper-V backups based on no. of CPU-Sockets
- If an ESXi host is deployed on a machine which has two CPU-Sockets, you need to buy two “VMware or Hyper-V Image Backup” licenses and backup unlimited VMs
- For Windows Physical Servers, you need to buy licenses per physical server machine
- Windows Desktops & Laptops licenses are FREE !
- For application backups, you need to buy license for each application
- The licenses need to be renewed every year
- License cost includes unlimited product upgrade, access to technical resources and 24/7 email & telephone support

Managing Licenses

- To buy licenses, you need to create an account for your company in Vembu Portal (https://portal.vembu.com). Vembu Portal is a centralized server which manages all of your Vembu Licenses from one place
- Once you have successfully signed up, goto “Buy” page and choose the license quantity and pay for the licenses
- Purchased licenses will be allocated to your account immediately and you can view them under “License” page
- These licenses will be automatically mapped with your existing backup jobs
- All Vembu BDR Backup Servers will communicate with Vembu Portal Server for license availability.

Pricing

Pricing

- Subscription based yearly(one, two and three year) licensing model for each applications. So you can just pay for what you use.
- License includes free updates and major product upgrades
- 24/7 Email & Telephone support
- Access to Vembu Community Forum, KnowledgeBase and other resources
- Access to centralized management portal to manage purchased licenses, download invoices and buy new licenses
- Check pricing here, https://www.vembu.com/vembu-bdr-suite-pricing/

Thank You

USA & CANADA
+1-512-256-8699

UNITED KINGDOM
+44-203-793-8668

Email
vembu-sales@vembu.com
vembu-support@vembu.com

www.vembu.com