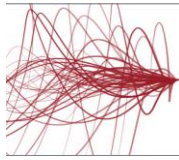
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# Veritas NetBackup™ 9.1 Licensing Guide

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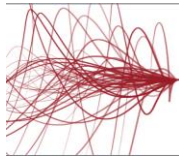
June 30 2021

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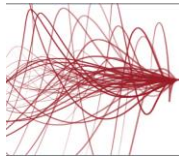
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**1. Introduction**

The Veritas NetBackup™ 9.1 Licensing Guide (Licensing Guide) is a reference document designed for use by Veritas partners and customers. The Licensing Guide describes licensing concepts and options available for NetBackup 9.1 and provides details that can help guide the customer to purchase the appropriate NetBackup license for the customer’s specific environment. For any question or comments about this guide please contact your Veritas representative.

**1.1. EULA & PUR**

Please note that this Licensing Guide is to be used for reference purposes only. For details on the specific license rights provided under a particular NetBackup product offering, refer to the applicable NetBackup End User License Agreement (EULA) and NetBackup Product Usage Rights (PUR), which are available on the company’s website on the [Product License Agreement](#) page, under the Current Agreements tab, and under the NetBackup section. Be sure to refer to the version of NetBackup Software installed for a given master server.



## 1.2 Updates to NetBackup Licensing Guide 9.0 to 9.1

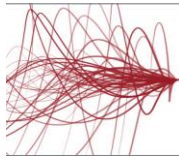
Section of Licensing Guide	Change
General	Updated Links

## 2. Licensing and Packaging Overview

Veritas offers customers two licensing options to purchase NetBackup software: Platform Base (or Capacity) model, and the Traditional (or Server or 'a la carte') model. The below graphic provides an overview of the Platform Base offerings and the features included in each package:

NBU Compl. Ed with Flexible Licensing **	NBU Limited Edition	NBU NDMP Edition	NBU Traditional
Perpetual, Subscription	Perpetual	Perpetual	Perpetual
Per FETB    Per FETB Plus	Per FETB	Per FETB	Various meters
Best in Class Unified Enterprise Data Protection across all environments	Unified Enterprise Data Protection aimed at mid market customers with Linux/Win/x86 only environments	Protection of file data on NAS filers using NDMP policies or NDMP data movers	Build your own solution
<ul style="list-style-type: none"> <li>NetBackup Snapshot Manager</li> <li>NetBackup CloudPoint</li> </ul>			
<ul style="list-style-type: none"> <li>Veritas Resiliency Platform (VRP)</li> </ul>			
<ul style="list-style-type: none"> <li>Standard Client</li> <li>Enterprise Client</li> </ul>	<ul style="list-style-type: none"> <li>Standard Server</li> <li>Enterprise Server</li> </ul>	<ul style="list-style-type: none"> <li>Std Server</li> <li>Ent. Server</li> </ul>	
<ul style="list-style-type: none"> <li>Library Based Tape Drive</li> <li>NDMP Option</li> <li>Shared Storage Option</li> </ul>	<ul style="list-style-type: none"> <li>Vault Option</li> <li>Replication Director</li> <li>OpsCenter Analytics</li> </ul>		
<ul style="list-style-type: none"> <li>Application &amp; Database License Pack</li> </ul>	<b>Add On Purchase:</b> Appl. & Database Add On		
<ul style="list-style-type: none"> <li>SAP Agent</li> <li>Self Service</li> </ul>			
CANNOT combine with Limited Edition	250TB Limit; No Unix CANNOT combine with Complete Ed., Complete Ed. w/ FL, or NDMP Edition	NDMP File Data Only Cannot combine with Limited Edition	<ul style="list-style-type: none"> <li>Std &amp; Enterprise Client</li> <li>Std &amp; Enterprise Server</li> <li>Data Protection Optimization Option (DPOO)</li> <li>NDMP Option</li> <li>Library Based Tape Drive</li> <li>Replication Director</li> <li>Shared Storage Option</li> <li>Vault Option</li> <li>OpsCenter Analytics</li> <li>Application and Database License Pack</li> <li>Self Service</li> <li>Enterprise Vault Agent</li> </ul>

\*\* NBU Complete Edition which is no longer available for sale is also included



[Skip to Complete Ed w/  
Flexible Licensing](#)

[Skip to Limited Ed](#)

[Skip to NDMP Ed](#)

### 2.1. Licensing Models

A **perpetual license** allows customers to use a specific version of a given software program on a perpetual basis with payment of a single license fee. With perpetual licensing, customers pay an upfront charge for the software license. As part of the initial software purchase, customers may purchase maintenance/support for their software licenses for a defined period. After the purchased maintenance/support period ends, customers may continue to use their perpetual software licenses, subject to the terms of the applicable license agreement. However, the customer's right to receive maintenance/support for their software licenses, including updates and upgrades to the software, expires along with their maintenance/support.

A **subscription** or **term-based license** allows customers to license the product during a specified period of time (either 12, 24 or 36 months); maintenance/support is included in the price of the subscription. During the term of the subscription, customers have the right to use the product, install product updates provided as part of maintenance/support, and receive technical support. Customers do not own the license, but they will have all the entitlements of ownership as long as they have a current subscription. At the end of the term, customers can renew the subscription to continue using the product.

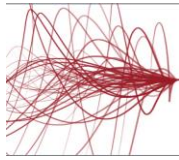
## 3. Licensing Offerings

### 3.1. NetBackup Offerings and Feature/ Functionality Inclusions

NetBackup Platform Base licensing is a capacity-based model using the amount of source data protected per-terabyte as the sole or primary calculation meter (Platform Base). This model is commonly referred to as capacity licensing or Front End Terabyte (FETB) licensing. The Platform Base model enables customers to license NetBackup based on how much source data is protected rather than the number of NetBackup clients, agents, servers, and options deployed as with Traditional licensing.

The Platform Base licensing model supports customers with multiple locations within the same domain, and customers with multiple domains as long as the customer has purchased a NetBackup license equal to or more than the total number of = FETB to be protected. Customers with multiple domains also have the option of using different licensing models in each respective domain, but customers are not allowed to utilize both the Platform Base licensing model and the Traditional licensing model within the same domain.

The Platform Base licensing model has four editions: Complete, Complete w/ Flexible Licensing, Big Data Workload, NDMP, and Limited. The Complete and Complete w/ Flexible Licensing, Big Data Workloads and NDMP Editions can be used together in the same domain. However, neither the Complete Edition, Big Data Workloads nor the NDMP Edition can be used in the same domain as the Limited Edition.



Note. Refer to the NetBackup [Product Usage Rights](#) (PUR) for the definition of Terabyte.

### 3.2. NetBackup Platform Base Editions

#### 3.2.1. Platform Base – Complete Edition with Flexible Licensing

The 'NetBackup Platform Base - Complete Edition with Flexible Licensing' (Base - Complete Ed. w/ Flexible Licensing) offering is available for all Front-End Terabytes protected, regardless of workload.

Beginning with NetBackup 8.3, each NetBackup entitlement will include CloudPoint and Veritas Resiliency Platform (VRP), please see section 3.2.1.1 for more details.

In order to utilize the multipliers available in Base - Complete Ed. w/ Flexible Licensing, customers must meet the following conditions:

- Customers must be running NetBackup version 8.1.2 or later on the master server(s) where the multiplier(s) are intended to be applied.
- Customers must enable telemetry via the Smart Meter functionality included in the NetBackup software or implement an alternate, Veritas-approved process to provide equivalent data to Veritas.
- Both conditions must be met within ninety (90) days of customer's initial purchase of NetBackup Complete Edition with Flexible Licensing.

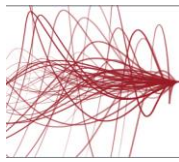
The table below details the multiplier to be applied per workload. Applying the multiplier allows a customer to use 1 FETB Plus unit to protect data for the given workload in accordance with ratio defined in the table.

Workload	Ratio
Physical	• One (1) FETB Plus: One (1) FETB of data protected
Virtual Workload	• One (1) FETB Plus: One and a half (1.5) FETB of data protected
Third Party Cloud	• One (1) FETB Plus: One and a half (1.5) FETB of data protected

The multiplier is only applied to Base - Complete Edition with Flexible Licensing beginning with NetBackup version 8.1.2. Refer to the [Product Usage Rights](#) and the table Workloads Defined (section 1.13) to understand which policies apply to which workloads.

Refer to the [Product Usage Rights](#) and the table Workloads Defined (section 1.13) for the list of virtual environments that qualify for the discount

A customer's entitlements will not change relative to the quantity of licenses they have purchased. Customers are not required to designate the type of workload they are buying a license for. A license can be used for any workload and can be moved between workloads. When logging into VEMS a customer will see the actual units



purchased. As of NetBackup version 8.1.2 the only place a customer will see the application of this multiplier is in Smart Meter.

A customer may combine both **Base - Complete Edition** and **Base - Complete Ed. w/ Flexible Licensing** licenses in the same domain. To understand how a customer's current NBU Complete Edition entitlements can coexist with the new NBU Complete Edition with Flexible Licensing entitlements consider the following scenarios.

**Example 1:** Customer has Base - Complete Ed. licenses (20 FETB) and needs an additional 5 licenses (5 FETB). Customer is currently on NetBackup version 7.7 and remains on 7.7 after the new purchase. Customer buys 5 licenses of Base - Complete Ed. w/ Flexible Licensing.

Customer entitlements before purchasing NBU CE w/ Flexible Licensing licenses?					Customer entitlements after purchasing NBU CE w/ Flexible Licensing licenses?			
License Descriptions	Number of licenses	Physical Included?	Virtual Included?	5 new licenses NBU CE w/ Flexible Licensing	License Descriptions	Number of licenses	Physical workload multiplier applied	Virtual workload multiplier applied
NBU CE	20	Yes	Yes		NBU CE	20	1	1
					NBU CE w/ Flexible Licensing	5	1	1

**Example 2:** Customer has Base - Complete Ed. licenses (20 FETB) and needs an additional 5 licenses (5 FETB). Customer is currently on NetBackup version 8.1 and upgrades to 8.1.2 after the purchase of the new licenses. Customer buys 5 licenses of Base - Complete Ed. w/ Flexible Licensing.

Customer entitlements before purchasing NBU CE w/ Flexible Licensing licenses?				• 5 new licenses NBU CE w/ Flexible Licensing • Upgrade NBU CE 8.1 to 8.1.2	Customer entitlements after purchasing NBU CE w/ Flexible Licensing licenses?			
License Descriptions	Number of licenses	Physical Included?	Virtual Included?		License Descriptions	Number of licenses	Physical workload multiplier applied	Virtual workload multiplier applied
NBU CE (on 8.1)	20 FETB	Yes	Yes		NBU CE (8.1.2)	20	1	1
				NBU CE w/ Flexible Licensing (8.1.2)	5	1	1.5	

### 3.2.2.1. CloudPoint and Veritas Resiliency Platform (VRP)

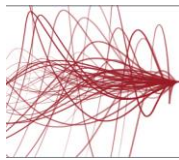
Starting with NetBackup 8.3 customers can now leverage CloudPoint functionality with either the Base – Complete Ed. or Base – Complete Ed. w/ Flexible licensing. Both NetBackup Snapshot Manager and NetBackup CloudPoint are included in the applicable NBU Complete Ed. entitlement.

In addition, customers with either of these entitlements can deploy Veritas Resiliency Platform (VRP). Customers must deploy NBU 8.3 and VRP 3.5. The following use cases are covered by complete edition entitlements where the orchestration of a workload is protected by:

- NBU as the data mover
- VRP only as the data mover
- NBU and VRP as the data mover
- InfoScale
- Array replication

Anything not protected by NBU but is orchestrated by VRP would require additional NBU CE FETB entitlements.





For instructions on how to activate CloudPoint or VRP with your current entitlement please see this [link](#).

### 3.2.3. Platform Base – NDMP Edition

The NetBackup Platform Base - NDMP Edition (Base – NDMP Ed.) is an economical licensing alternative for the protection of file data on NAS filers using NDMP policies or NDMP data movers. It provides a reduced capacity licensing fee for customers that need to back up large amounts of data concentrated on these storage systems.

The Base - NDMP Ed. is only available for Front End Terabytes that are protected using NDMP and may not be used for any other purpose.

The Base - NDMP Ed. offering includes the Replication Director feature for the protection of NAS devices using snapshots and replication through storage system integration. The Base - NDMP Ed. only supports NDMP policy-based protection of filers as well as the use of the NDMP data mover in storage lifecycle policies. Customers requiring the flexibility of configuring Standard, Windows, or application policies in addition to NDMP policies require an upgrade to the Base – Complete Edition w/ Flexible Licensing.

Accelerator for NDMP is included as part of the Platform Base – NDMP Edition. However, other NetBackup Accelerator workloads are not supported with the Base - NDMP Ed. The use of other NetBackup Accelerator workloads (e.g. VMWare, files & folders, etc.) requires the Base – Complete Edition w/ Flexible Licensing Ed.

[To compare all editions, go to Licensing Overview](#)

### 3.2.4. Platform Base – Limited Edition

The NetBackup Platform Base - Limited Edition (Base – Limited Ed.) is a capacity licensing model for customers with smaller, less complex environments.

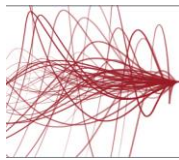
The Base – Limited Ed. is restricted to customers protecting less than 250 Front End Terabytes (across all NetBackup domains), restricted to Windows, Linux, and Solaris x86 systems installed in the environment, and cannot be combined with the Base – Complete Ed., Base – Complete Ed. w/ Flexible Licensing, Base - Big Data Workload or Base - NDMP Editions within the same NetBackup domain.

The Base - Limited Ed. has two licensing components: 1) A Front End Terabyte license and 2) an optional application agent/instance (i.e. the installed NetBackup application component) license for application-consistent recovery.

The Base - Limited Ed. is not recommended for customers close to 250 Front End Terabytes as a customer must upgrade all licenses to the Base - Complete Ed. w/ Flexible Licensing and/or the Base - NDMP Ed. once the total NetBackup environment grows above 250 TB's (i.e. total number of FETB's across all NetBackup domains).

Example 3: In Domain A, a customer was using the Traditional license model to back up 200 TB's and the customer was using Base - Limited Ed. in Domain B to backup 51 TB's then the customer would need to upgrade Domain B from Base - Limited Ed. to Base - Complete Ed. because the total amount of source data across both





domains is greater than 250TB's (200 + 51 = 251). The 250TB restriction for the Base - Limited Ed. applies to the legal entity or entities for which the license has been granted.

Example 4: Parent Co. XYZ has Subsidiary A and Subsidiary B, and Subsidiary A purchases the license(s). By default, Subsidiary A and Subsidiary A alone receives the license entitlement. In this scenario, the 250TB restriction applies only to Subsidiary A because Subsidiary A is the only entity authorized to use the license. The scenario, where the purchasing legal entity is given the license(s) authorization, is the standard entitlement scenario. However, if special authorization has been granted to use license(s) across multiple legal entities, then the 250TB restriction would apply across all licensed entities.

Example 5: Parent Co. XYZ and its two subsidiaries were granted special authorization to use licenses across the three legal entities than the 250TB restriction would be calculated by taking the sum of all TB's backed up across all domains across all three legal entities.

[To compare all editions, go to Licensing Overview](#)

### 3.2.5. Platform Base – Windows & Linux Edition

The NetBackup Platform Base - Windows and Linux Edition licensing offer (Base – Windows & Linux Ed.) is only available to partners enrolled in [VSPP](#). You cannot combine a Base – Windows & Linux Ed. license with a Base - Complete Ed., Base – Complete Ed. w/ Flexible Licensing or Base – NDMP Ed. within the same NetBackup Domain.

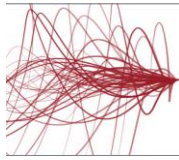
### 3.2.6. Platform Base – Limited Edition Application and Database Add-on

The NetBackup Platform Base - Limited Edition Application and Database Add-on (Base – Ltd Ed. App & DB add-on) provides additional integration at a deeper level, enabling more reliable, application-consistent recovery. These add-ons are optional but highly recommended for protecting specific workloads.

The Base – Ltd Ed. App & DB add-on IS NOT licensed the same way as the Application and Database Pack on the Traditional license model. The Application and Database Pack on the Traditional model is licensed per tiered physical server/machine. The Application and Database Add-on on the Platform Base – Limited Edition is licensed per NetBackup application agent/instance (i.e. the installed NetBackup application component) and not per physical host regardless of whether the agent/instance is installed in a physical or virtual environment.

The Enterprise Vault agent is included in the Base – Limited Ed. license so an Application and Database Add-on is not needed to obtain this functionality.

The Base – Ltd Ed. App & DB add-on license(s) is required to leverage NetBackup Copilot functionality. The number of licenses required for NetBackup Copilot is determined by the number of NetBackup application agents/instances (i.e. installed NetBackup application components) installed on the clients leveraging NetBackup Copilot on the NetBackup Appliance.



### 3.3. NetBackup Platform Base Licensing Requirements

The NetBackup Platform Base license must be purchased for all front-end terabytes in the NetBackup domain. There should be no instances where the number of FETB backed up exceeds the number of FETB licensed; in this case the customer is out of compliance and must purchase additional FETB licenses. The Platform Base – Complete Edition, Platform Base – Big Data Workloads Edition, and the Platform Base – NDMP Edition, and NetBackup Enterprise Virtual Client can be utilized within the same domain or across multiple domains, as long as the total number of FETB is licensed separately for each Edition, but again, cannot mix the Platform Base licensing model and the Traditional licensing model within the same domain.

For a more detailed understanding of how Veritas measures FETB, please refer to the [Admin Guide](#). Additional details can be found [here](#), [here](#), and [here](#). Details regarding multiple policies protecting the same source data can be found at the following [link](#).

### 3.5. NetBackup Traditional Licensing Model (a la carte)

The Traditional (also called “server” or “a la carte”) licensing model is based on the number of NetBackup clients, agents, servers, and options that NetBackup will be protecting or run on. A customer purchases the same number of licenses as the count of clients, agents, servers, and options. As the customer deploys additional clients or servers or attach additional tape drives or storage to NetBackup, additional licenses for appropriate NetBackup products are required. If a server is protected by multiple Master Servers, a license is required for each Master Server Domain.

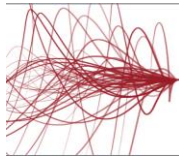
#### 3.5.1. Hardware Tiers

Several NetBackup products on the Traditional licensing model use a tiered hardware license meter. For Veritas sales, to determine the correct server tier, please refer to the relevant tier matrix below. Partners, please ask your Veritas rep for assistance.

- [Server Tier Matrix](#) (available only to internal resources)
- [NDMP Tier Matrix](#) (available only to internal resources)

#### 3.5.2. Clients & Servers

Any server that sends or receives data to a NetBackup server for protection requires a NetBackup client license. If a server is protected by multiple Master Servers, a license is required for each Master Server Domain. There are two types of NetBackup client licenses: Standard Client and Enterprise Client.



### NetBackup Standard Client

The NetBackup Standard Client license entitles customers to protect a server with a standard NetBackup client (LAN-based backup).

- Customers can use either Bare Metal Restore or Client Encryption Option, but they cannot be used together.
- NetBackup Standard Client support for Red Hat Linux and SUSE Linux on IBM's zSeries is licensed per virtual machine.
- Open File Support - licensing protects files while open or in use.
- Major platforms supported by the Standard Client include Windows, UNIX, Linux, Solaris x86, OpenVMS, Mac OS X, NetWare and Free BSD. For specific platforms and versions, refer to the [NetBackup OS Compatibility Guide](#) for more information.

For specific BMR platform support information, refer to the [BMR compatibility page](#).

### NetBackup Enterprise Client

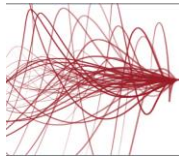
The NetBackup Enterprise Client license contains the functionality of the NetBackup Standard Client plus features that provide integration with hypervisors (e.g. VMware, Hyper-V and Acropolis Hypervisors [AHV]), maximize backup performance over a storage area network (SAN), and reduce the impact of backups through off-host backups.

- The NetBackup Enterprise Client must be used with NetBackup Enterprise Server and cannot be used with NetBackup Server.
- Refer to the NetBackup Server Tier Matrix in order to select the correct server tier.
- For a list of supported platforms, operating systems, and snapshot methods that Snapshot Client supports for certain backup methods, refer to the [NetBackup OS Compatibility Guide](#)
- SAN Media Server should not be used to backup data from networked Clients. In order to backup data from networked Clients and remote Clients to the SAN attached tape resources, a full NetBackup Enterprise Server license is required.
- If two NetBackup Master Servers (i.e. two separate NetBackup domains) protect a single client, two client licenses are required, one for each domain. Additionally, if two NetBackup Master Servers are installed on a single server, two licenses are required, one for each domain.
- Dynamic NAS (DNAS) requires NetBackup Snapshot Manager. Each NBU host performing backups would require one Enterprise Client license.

Customers deploying the NetBackup Enterprise Client license for protecting Hadoop or Mongo DB environments only require one license per cluster. Each new cluster instance would require a new license.

#### CloudPoint functionality

NetBackup Enterprise Client includes a license to run and operate NetBackup Snapshot Manager which provides snapshot orchestration on supported data center arrays. If NetBackup Enterprise Client is included in



Licensed Software that is licensed on a Per Front-End Terabyte other than Base – Complete Ed. or Base – Complete Ed. w/ Flexible Licensing you are required to purchase a Base – Complete Ed. w/ Flexible Licensing license to deploy NetBackup CloudPoint for in-cloud data protection. For clarity, Enterprise Client only entitles use of NetBackup Snapshot Manager; it does not entitle use of NetBackup CloudPoint.

### Veritas Resiliency Platform (VRP) functionality

A license of NetBackup Enterprise client does not entitle a customer to use VRP. Customers must purchase either VRP as a standalone SKU or purchase a Base - Complete Ed. w/ Flexible Licensing license to leverage VRP.

### NetBackup Server

There are two server licensing components: NetBackup Server and NetBackup Enterprise Server. NetBackup Enterprise Server includes the complete set of features while NetBackup Server provides a limited feature set. The clients, agents, and options are designed to work with both versions of NetBackup Server except for the NetBackup Enterprise Client, which is only functional with NetBackup Enterprise Server.

NetBackup Server is an economical data protection solution with limited feature set is licensed per NetBackup domain. A NetBackup Server domain supports one backup server protecting multiple clients and NDMP systems. Not all agents and options are supported with NetBackup Server.

### NetBackup Enterprise Server

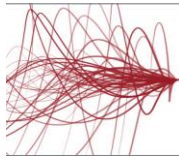
Licenses the functionality of both the Master and Media Server. NetBackup Enterprise Server pricing is based on the tier of the machine. The tier of the machine is determined by the number of installed processors on the physical machine.

### Server Licensing Considerations:

Blade Servers - NetBackup components (servers, clients, agents, and options) are licensed per physical system. Therefore, each blade server will require separate NetBackup licenses. NetBackup is not licensed per rack of servers.

Cluster Environments - NetBackup licenses (servers, clients, agents, and options) are required for all nodes of a cluster. However, customers are entitled to install and use one additional copy of the licensed software per the conditions set forth in the Cold Disaster Recovery Licensing Policy. In most cases, this means that in an active-passive cluster only the active node is licensed. During a failover situation the licenses effectively transfer to the new active node.

The Master/Media Server in a NetBackup Server (two-tier) configuration is only supported in a clustered environment on Windows and using Veritas Cluster Server or Microsoft Cluster Server. In this case only one NetBackup Server license is required for the active node. However, NetBackup clients, agents, and options that are attached to a NetBackup Server are supported in a clustered environment using the same clustering combinations supported with NetBackup Enterprise Server.



Refer to the [NetBackup Cluster Compatibility List](#) for a complete list of all NetBackup supported clustering products.

### 3.5.3. NetBackup Agents

In addition to clients, certain applications and databases can benefit from NetBackup agents that provide additional integration at a deeper level, enabling more reliable, application-consistent recovery. These agents are optional but highly recommended.

#### NetBackup Application and Database Pack

One Application and Database Pack is required for each physical host regardless of what types or how many instances. For example, a single server requiring agent support for both IBM Lotus Notes and Informix would require one (1) Application and Database Pack.

The NetBackup Application and Database Pack is licensed per system on a tier basis, once per physical host. Refer to Application and Database Agent Compatibility List for a list of all supported database and applications across platforms.

- Some applications are sensitive to clustering and thus need additional qualification. Agent support doesn't imply agent support for a clustered version of the application.

Enterprise Vault - An Application and Database Pack license is not required for customers using NetBackup 7.6+.

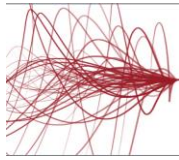
The Application & Database Pack(s) is required to leverage NetBackup Copilot functionality. The number of licenses required for NetBackup Copilot is determined by the number of tiered physical servers leveraging NetBackup Copilot functionality on the NetBackup Appliance.

Refer to the [NetBackup Server Tier Matrix](#) in order to select the correct server tier.

#### NetBackup for SAP Agent

This agent allows customers to protect SAP environments, including SAP HANA. Integration with the SAPDBA administrative interface, along with the BR backup and recovery commands, provides a solid, SAP NetWeaver-centric data protection solution for customer specific configurations on the UNIX, Windows, and Linux platforms.

Refer to the [NetBackup Server Tier Matrix](#) in order to select the correct server tier.



### 3.5.4. Disk Based Options

#### Basic Disk Functionality (free)

Basic disk backup in NetBackup does not require a license. Basic disk backup can be used for backing up to a basic disk storage unit or for temporary staging of data before writing it to tape.

**NOTE:**

- Storage Lifecycle Policies cannot be used with basic disk
- Backups to any storage target that performs deduplication requires Data Protection Optimization Option licensed for the total number of front-end terabytes being protected regardless of NBU seeing it as basic disk

#### NetBackup Data Protection Optimization (DPOO)

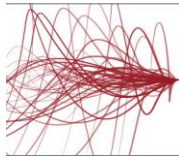
DPOO is designed to provide a set of NetBackup features geared towards enhancing data protection by optimizing storage requirements, network bandwidth usage, impact on client systems etc., or working with third party technologies that provide enhancements in these areas. Data Protection Optimization Option licensing is based on Front End Terabytes. If a media server is used as part of the configuration, a NetBackup Server or NetBackup Enterprise Server license is required.

This license enables all the functionality listed below.

- *Enterprise Disk Option* – Includes Storage Life Cycle Policies, Media Server Load Balancing, Virtual Tape, intelligent third-party appliance connectivity (OST or non-OST enabled), cloud storage (certified S3 targets or Azure)
- *Intelligent Deduplication* – Includes both client and target based deduplication features.
- *CloudCatalyst* – Includes deduplication support for certified object storage targets
- *Accelerator* – Requires sending backups to a disk pool that supports NetBackup Optimized Synthetics technology. A NetBackup intelligent deduplication pool, NetBackup Cloud-store pool or compatible OpenStorage pool is required, which is included with the Data Protection Optimization license.
- *OpenStorage (OST)* – Enables advanced access and control of qualified third-party intelligent disk devices (typically appliances, with an OST plugin distributed by the storage partner). Please check the Hardware Compatibility List for the latest list of storage partners with qualified OpenStorage plug-ins.
- *Auto Image Replication (AIR)* – AIR is a part of the Storage Lifecycle Policies feature and requires the Data Protection Optimization Option license for both the source and target domains.

Customers, under the Traditional licensing policy, are required to purchase the applicable infrastructure licenses for the master and media servers in the source and target domains for using Auto Image Replication. Licensing for the target domain is required even if that domain is a dedicated Disaster Recovery domain. This is because the target domain master and media servers must be active at all times and are not in “idle” mode as mandated by the Cold Disaster Recovery policy.

**NOTE:**



- If the Auto Image Replication target domain is a dedicated Disaster Recovery site then under the Platform Base licensing model there is no license charge for any of the target domain components.
- Virtual Tape – Enables support for 3rd party virtual tape offerings. Includes sharing of virtual tape drives; no Shared Storage Option license is required. Supports an unlimited number of virtual tape drives.

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A list of NetBackup supported virtual tape libraries can be located on the NetBackup Hardware Compatibility Matrix.

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### NetBackup Replication Director

NetBackup Replication Director Option provides unified, policy-based management of backups, snapshots and replication. Replication Director is licensed by front-end terabytes (FETB) being protected. One NetBackup Replication Director license is required for every front-end terabyte that is protected with array-based snapshots. Any number of replications is allowed since only front-end capacity is counted.

Any related use of Snapshot Client capabilities is included in the licensing and does not require an Enterprise Client license. However, any other usage of features from Standard or Enterprise Client require the respective Client licenses. Duplication of snapshots to disk or tape for backup or disaster recovery may require additional licenses, e.g. Library Based Tape Drive, DPOO (deduplication).

#### NOTE:

- Duplication to tape using the NDMP Option is included with Replication Director.

### NetBackup for NDMP

NetBackup for NDMP provides reliable, high-performing backup and recovery services to tape or disk for NDMP-enabled devices. One NetBackup for NDMP license is required for each NDMP-enabled NAS (network attached storage) device requiring protection. NetBackup Enterprise Server and NetBackup Server can scale to protect an unlimited number of NDMP-enabled NAS devices.

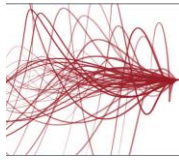
Some NDMP devices have multiple heads (sometimes called data movers or controllers). This is taken into account in the tier listing. Please refer to the examples and notes for additional information.

Licensing is per NDMP NAS (host) regardless of the NDMP backup method (local, 3-way, or remote NDMP). For example, if a customer has 5 NDMP-enabled NAS devices that require backup or restore services from NetBackup, 5 NetBackup for NDMP licenses would be required.

A small number of tape libraries also implement NDMP (use of this capability was more common prior to NetBackup adding SSO support for NDMP in NetBackup 6.0) and these also require a NDMP license.

When NDMP is only used for duplication of backup images, such as with the VTL direct-to-tape or OST to tape, there is no need to purchase a NDMP license as that NDMP functionality is already enabled within NetBackup.





### 3.5.5. Tape Based Options

#### NetBackup Library Based Tape Drive

NetBackup support for physical tape drives controlled by a robotic library is licensed per physical tape drive; regardless of the manufacturer, type of device, or number of servers attached to the library. There is no charge for stand-alone, non-robotic tape drives directly attached to a NetBackup Master/Media Server or NetBackup Server. Refer to the Data Protection Optimization Option for licensing of virtual tape libraries (VTLs).

#### Shared Storage Option

NetBackup Shared Storage Option dynamically shares individual tape drives, standalone or in a robotic tape library, among multiple NetBackup Media Servers and/or NDMP hosts (servers). These servers can be a NetBackup Master Server, NetBackup Media Server, or NetBackup SAN Media Server.

NetBackup Shared Storage Option is licensed per shared tape drive, regardless of the manufacturer, type of device, or number of NetBackup Servers attached to the SAN. Sharing of each physical tape drive among NetBackup Media Servers and/or NDMP hosts (servers) requires an SSO license for that tape drive. The NetBackup Shared Storage Option license is in addition to any required NetBackup Library Based Tape Drive licenses. If the shared tape drive is not included in a tape library, then only a Shared Storage Option license is required. The Shared Storage Option is not needed when used with the NetBackup Virtual Tape Option (included in Data Protection Optimization Option).

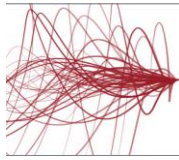
#### NetBackup Vault Option

NetBackup Vault requires a license for each physical tape drive in physical tape libraries used as the source or destination for Vaulting. NetBackup Vault is licensed per NetBackup Storage Domain (i.e. one NetBackup Enterprise Master Server or NetBackup Server) and includes four NetBackup Vault physical tape drive licenses.

If more than four physical tape drives are used in the libraries for duplication purposes, a NetBackup Vault Additional Drive license would be required for each drive. A NetBackup Vault Unlimited Drive license provides support for unrestricted number of drives per NetBackup Storage Domain (recommended if the library has more than 24 drives).

The Storage Lifecycle Policy feature (part of Data Protection Optimization Option) can be used for duplicating backup images from one tape library to another one, instead of using NetBackup Vault for duplication. If this is done, only the physical tape drives in the library ejecting tapes to be sent off-site and managed by NetBackup Vault would require NetBackup Vault tape drive licenses.

- The unlimited drive SKU includes the base NetBackup Vault license.
- A NetBackup Vault license is required for ALL physical tape drives in a library used for vaulting.



When a VTL is the primary NetBackup storage and a customer wishes to run a duplication job to physical tape for offsite storage, the customer must have an appropriate tape drive licenses.

NetBackup Vault Additional Drive licenses are not required when only one copy of the backup is being created and vaulted.

### 3.5.6. Other Options

#### NetBackup OpsCenter Analytics

There are two packages of OpsCenter:

- Standard, included with all NetBackup Licensing. The customer is able to deploy OpsCenter within their environment as needed.
- Analytics, separately licensed option which enables advanced reporting capabilities such as a custom report builder and the ability to write custom SQL queries on the OpsCenter database.

An OpsCenter Analytics license is required for every physical client with an active backup policy. The client should include all hosts, which may include master and media servers as well if they are being backed up

#### NetBackup Self Service

NetBackup Self Service (NSS) provides an IT Self-Service platform that offers Backup as a Service (BaaS) where customers and end users can self-serve their backup requirements on-demand.

Customers licensing Self Service must license all front-end terabytes that are managed by NetBackup Self Service.

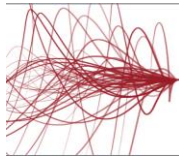
### 3.5.7. NetBackup Starter Packs

NetBackup Starter Packs are cost effective software packages designed to meet the backup and recovery needs of midsize, heterogeneous environments. Organizations with growing data protection needs, or who require online database protection and off-site tape management, can scale their NetBackup Starter Pack configuration with additional NetBackup clients, Application and Database Pack, and other options. The individual components included in the Starter Pack cannot be cross-graded to higher functioning products. For example, a NetBackup Server license in the Starter Pack cannot be upgraded to NetBackup Enterprise Server.

**Starter Pack – 5 Client**

**Starter Pack – 20 Client**

**Starter Pack – 40 Client**



<ul style="list-style-type: none"><li>• 5 clients (any OS)</li><li>• 1 NetBackup Server (any OS, up to tier 2)</li><li>• 1 tape drive license</li></ul>	<ul style="list-style-type: none"><li>• 20 clients (any OS)</li><li>• 1 NetBackup Server (any OS, up to tier 2)</li><li>• 1 tape drive license</li><li>• 2 windows App &amp; DB Pack (up to tier 2)</li></ul>	<ul style="list-style-type: none"><li>• 40 clients (any OS)</li><li>• 1 NetBackup Server (any OS, up to tier 2)</li><li>• 2 tape drives licenses</li><li>• 3 windows App &amp; DB Pack (up to tier 2)</li></ul>
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### 3.5.8. Licensing Virtual Machines

All methods of virtual machine (VM) backup are included in the Traditional Licensing model which includes: NetBackup for VMware, NetBackup for Hyper-V, NetBackup for Nutanix Acropolis Hypervisor (AVH), AzureStack, OpenStack, Red Hat Virtualization (KVM). In summary, the guidelines for licensing virtual environments are:

- The license platform is determined by the physical host on which the Virtual Machines (VM) reside. For example, Hyper-V, VMware, Acropolis Hypervisor, XenServer hosts are x86, while a Solaris SPARC LDOM host is UNIX.
- The license tier is determined by the physical host system as documented in the HW tier appendix. The VM configurations do not apply.
- When a protected VM is copied, moved, or otherwise transferred between physical hosts, each participating physical host must be licensed, e.g. clustering, load-balancing, replication, etc.

If two NetBackup Master Servers (i.e. two separate NetBackup domains) protect a single client, two client licenses are required, one for each domain. Additionally, if two NetBackup Master Servers are installed on a single server, two licenses are required, one for each domain.

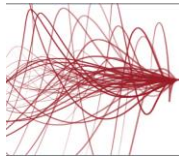
#### 3.5.8.1. Licensing Agents/ Clients within the VM

This is the most straightforward method of virtual machine backups. Backup data is transferred from the guest VM to the NetBackup server over the LAN. When running a database application within a VM, it is recommended to use the associated NetBackup agent within the VM. When using a NetBackup client in one or more guest VMs, only one client license (Standard or Enterprise) is required for the entire physical host regardless of the number of VMs.

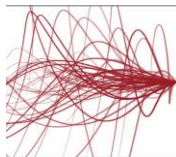
When using a NetBackup database/application agent in one or more guest VMs, only one Application & Database Pack license or SAP agent license is required per host server, regardless of how many VMs may be running a particular database or application, and regardless of how many application instances are running.

#### 3.5.8.2. Licensing via agentless backup

One (1) Enterprise Client license is required for each Hyper-V host. If the Hyper-V host will also be used as a media server, a NetBackup Enterprise Server license is required in addition to the Enterprise Client license.

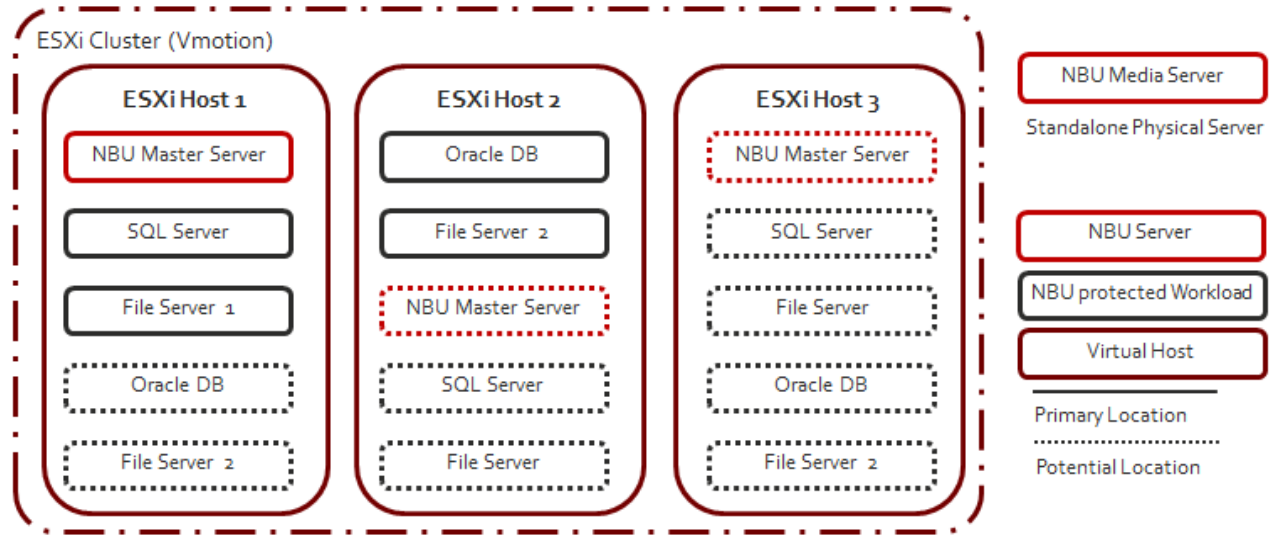


Performing an off-host backup of a Hyper-V VM snapshot requires that the NetBackup Windows client be installed on both the Hyper-V host and the off-host Windows client. However, for consistency with NetBackup for VMware licensing practices, the off-host capability is included in the Enterprise Client license of the Hyper-V host. Also, for Hyper-V clusters, any/only Hyper-V hosts (cluster nodes) that contain virtual machines protected by NetBackup require an Enterprise Client license. Also, licensing must account for any migration of VMs between nodes. In other words, if a set of cluster nodes are used to load-balance VMs, all nodes that participate must be licensed.



## 3.5.8.3. Licensing requirements – Virtualized environment scenarios

### Virtual Resiliency Scenario

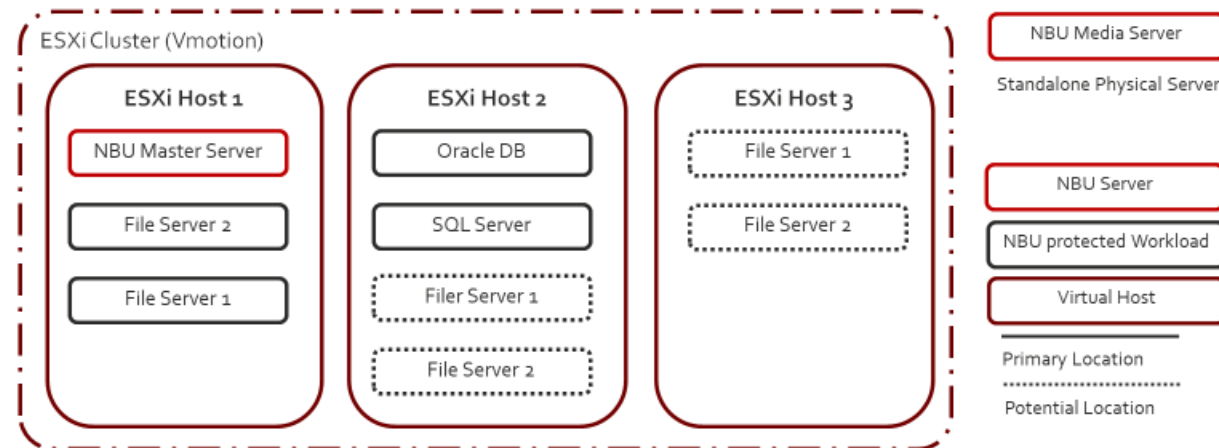


#### Licensing

- **Required:** Quantity 3 Enterprise Clients for the ESX servers
- **Required:** Quantity 1 Enterprise Server license
- **Required:** Quantity 1 Enterprise Server (for the media server)
- **Optional:** Quantity 3 Application & Database pack

**VERITAS**

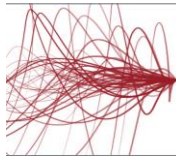
### Affinity Rules Scenario



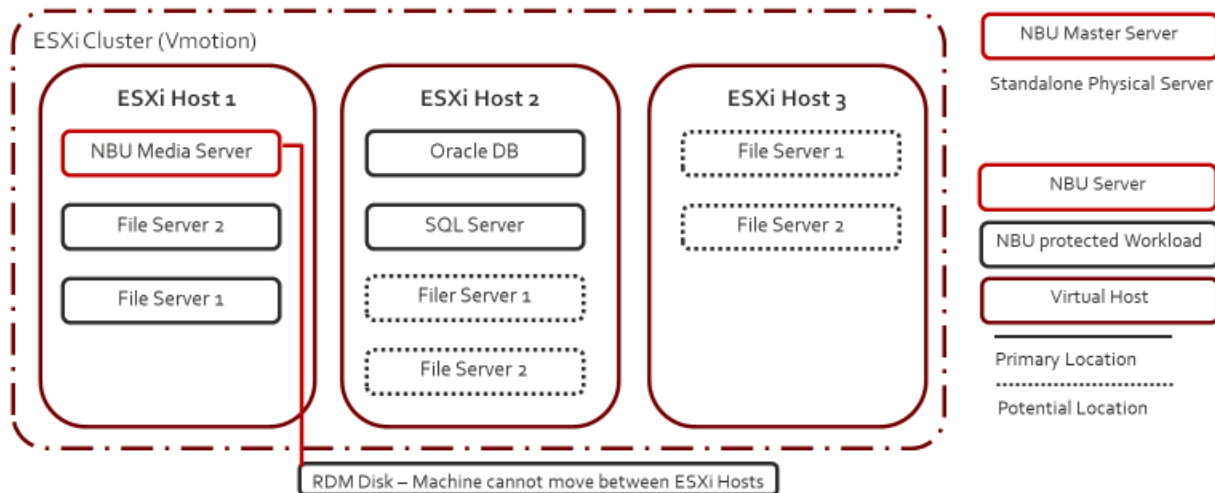
#### Licensing

- **Required:** Quantity 3 Enterprise Clients for the ESX servers
- **Required:** Quantity 1 Enterprise Server license
- **Required:** Quantity 1 Enterprise Server (for the media server)
- **Optional:** Quantity 3 Application & Database pack

**VERITAS**



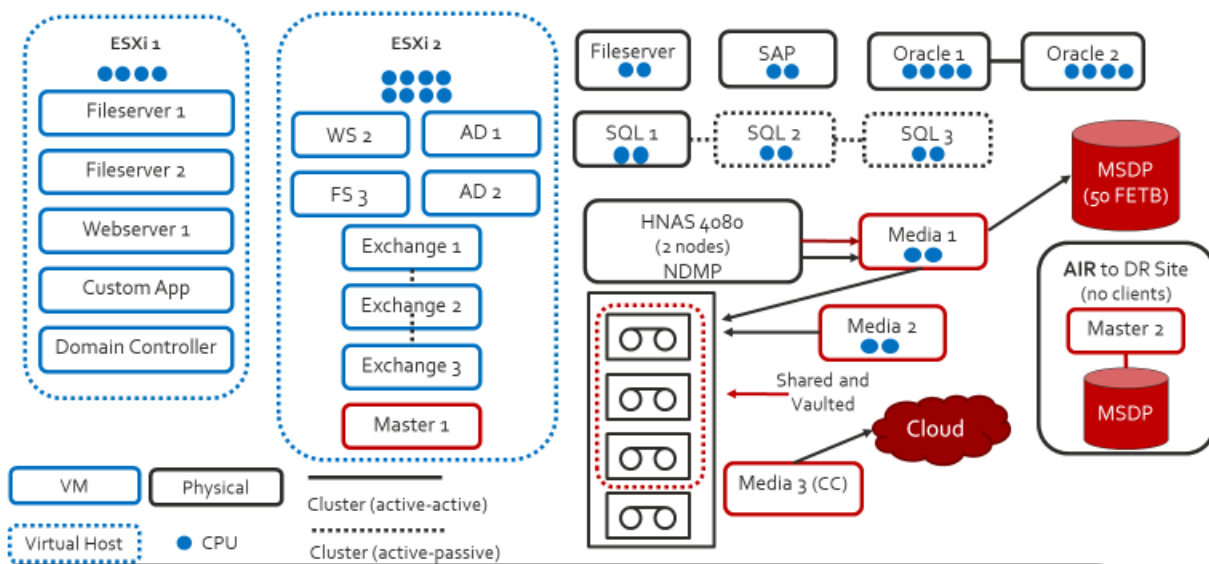
## Raw Disc Mapping Scenario



### Licensing

- **Required:** Quantity 3 Enterprise Clients for the ESX servers
- **Required:** Quantity 1 Enterprise Server license
- **Required:** Quantity 1 Enterprise Server (for the media server)
- **Optional:** Quantity 2 Application & Database pack

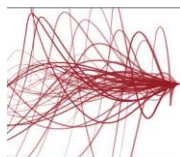
VERITAS



### Licensing

- **Required:** Quantity 2 Enterprise Clients for the ESX servers
- **Required:** Quantity 5 Standard Clients
- **Required:** Quantity 3 Enterprise Server
- **Required:** Quantity 50 DPOO
- **Required:** Quantity 1 Vault Option
- **Required:** Quantity 3 Shared Storage Option
- **Optional:** Quantity 3 Application & Database pack
- **Optional:** Quantity 1 SAP Agent

VERITAS



## 3.5.9. Licensing containerized environments

When protecting containerized environments, a customer must buy either a capacity-based license, i.e. FETB or a Standard Client license for each NetBackup container in a pod. If a customer is protecting a Kubernetes container cluster with an existing master server a Std Client license is required for the Kubernetes container cluster.

## 3.5.10. Licensing Cloud-based Workloads (BYOL)

NetBackup can be used to backup data residing on IaaS web services like Amazon EC2. A customer can use either the a la carte (Traditional) or Capacity licensing. In cases where the physical characteristics of a cloud system or workload are not measurable, the logical instance should be treated as a physical system for licensing purposes. The table below provides a mapping of traditional licenses for on-prem use to the cloud equivalent

Product	Meter	Mapping in Azure	Tiered Products			
			Tier 1	Tier 2	Tier 3	Tier 4
NetBackup Server	Per Tiered Server	1 CPU = 1 vCPU	WLS	1	2-3	4-7
			Unix	1-2	3-4	5-12
NetBackup Enterprise Server	Per Tiered Server	1 CPU = 1 vCPU	WLS	1	2-3	4-7
			Unix	1-2	3-4	5-12
NetBackup Standard Client	Per Client	1 Client = 1 Client				
NetBackup Enterprise Client	Per Tiered Server	1 CPU = 1 vCPU	WLS	1	2-3	4-7
			Unix	1-2	3-4	5-12
NetBackup Application and Database Pack	Per Tiered Client	1 Client = x Hosts <sup>(1)</sup>	WLS	1-4	5	6-9
			Unix	1-8	9-13	14-21
NetBackup Library Based Tape Drive	Per Tape Drive	N/A <sup>(2)</sup>				
NetBackup for NDMP	Per Tiered NAS Device	N/A <sup>(2)</sup>				
NetBackup Shared Storage Option	Per Shared Drive	N/A <sup>(2)</sup>				
NetBackup Vault Option Base Additional Drive Unlimited Drives (w/Base)	Per Master Server	N/A <sup>(2)</sup>				
	Per Tape Drive	N/A <sup>(2)</sup>				
	Per Master Server	N/A <sup>(2)</sup>				
		N/A <sup>(2)</sup>				
NetBackup for SAP Agent	Per Tiered Client	1 Client = x Hosts <sup>(1)</sup>	WLS	1-4	5	6-9
			Unix	1-8	9-13	14-21
NetBackup Data Protection Optimization Option	Per Front-End Terabyte	FETB = FETB				
NetBackup Replication Director	Per Front-End Terabyte	FETB = FETB				
NetBackup OpsCenter Analytics	Per Client	1 Client = 1 Client				

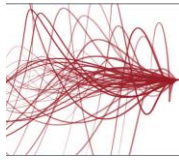
(1) No expected use case in the cloud. If one is identified, we will re-evaluate.

## 4. Traditional to Capacity Migration

### 4.1. Migrating From Traditional and Platform Base Licensing Models

Customers may migrate from the Traditional licensing model to the Platform Base (Capacity) licensing model with Veritas approval. Migration will be permitted consistent with then-current Veritas policies. Customers interested exploring this option can contact their Veritas Sales Representative for further detail about how to initiate the process. Once converted, refer to the following [link](#) for details on how to migrate a NetBackup domain from Traditional licenses to Capacity licenses.





## 5. Upgrades, Cross-grades, Evaluation Licenses

### 5.1. Version Upgrades

When a new version of NetBackup is released, customers on active maintenance/support contracts are entitled to upgrade their respective NetBackup licenses to the new version. This is called a version upgrade. Current customers generally receive an automatic notification email and letter that announces the availability of a new version and provides the serial number needed to register at the Customer Care License Portal. Customer Care should be able to help customers who did not receive this notification.

The preferred download method from FileConnect is the managed download. This is the better option because the download can resume if interrupted. The http download will restart the download process. If you have any issues generating their license keys at the License Portal, please pro-actively work with Customer Care.

### 5.2. Cross-grades

The term “cross-grade” is used to describe when a product or option of lesser functionality is upgraded to a product or option of greater functionality. Not all cross-grade scenarios are allowed.

#### **Server to Enterprise Server**

NetBackup Server and NetBackup Enterprise Server software share a common set of NetBackup Clients, Options and Agents. In the event an organization requires advanced snapshot-based, SAN, and data center scalability solutions, a NetBackup Server investment can be seamlessly upgraded to a NetBackup Enterprise Server solution.

#### **Standard Client to Enterprise Client**

To upgrade the performance often associated with standard client protection, NetBackup Enterprise Client software consolidates a variety of snapshot-based technologies into a single, easy to use data protection solution.

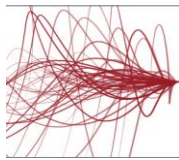
#### **Platform Base - NDMP Ed. or Platform Base – Limited Ed. to Platform Base Complete**

It is possible to upgrade from either Base – NDMP Ed. or Base – Limited Ed. to Base – Complete Ed. w/ Flexible Licensing.

### 5.3. Software Evaluation Licenses

Veritas provides prospects the opportunity to evaluate NetBackup for a limited time at no charge. An evaluation license key is good for 60 days with no support. Partners are encouraged to leverage trialware on [Veritas.com](http://Veritas.com) where available.

Partner/Distribution Account Managers may leverage the existing Internal Enterprise NFR Process to request complimentary software on their partner's behalf.



## 6. Maintenance/ Support

Veritas offers two levels of support, Essential Support and Basic Maintenance. Basic Maintenance is only available in India, Japan, and Korea. Additionally, Veritas offers Business Critical Services, the highest level of support, optimization, and stabilization for NetBackup, providing options for on-site assistance, advanced access to technical specialists, accelerated service level targets, proactive account reviews, and dedicated account management.

The NetBackup support page at Veritas Support includes a set of useful links to documentation, upgrades, tools and statuses. It is recommended to access this page frequently.

## 7. General Examples

### Measuring FETB

A customer with 2500 clients, each with 100GB of data to be protected on them, would have:  $2500 * 100\text{GB} = 25,000\text{GB} = 24.4\text{TB}$  [ $25,000 / 1024 = 24.4$ ] of front end data.

Because most customers see the amount of primary storage that they need protecting growing on a monthly basis, this customer would want to purchase the capacity required to accommodate this growth. If this customer expected 10% growth in source data per year, they should add 10% to the total license amount ( $2.44\text{ TB} + 24.4\text{ TB} = 26.8$ ) for a total of 27 TB.

### Platform Base Licensing

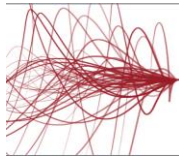
The size of the total environment is 10 terabytes, 3 of the terabytes are protected using NDMP. The licensing requirements would be the following:

- 7 terabytes of the NetBackup Platform Base – Complete Edition
- 3 terabytes of the NetBackup Platform Base – NDMP Edition

### Platform Base Limited Edition -Licensing

Example 1: Parent Co. XYZ has Subsidiary A and Subsidiary B. Subsidiary A purchased the license(s) then, by default, Subsidiary A and Subsidiary A alone receives the license entitlement. In this scenario, the 250TB restriction applies only to Subsidiary A because Subsidiary A is the only entity authorized to use the license. The scenario, where the purchasing legal entity is given the license(s) authorization, is the standard entitlement scenario. However, if special authorization has been granted to use license(s) across multiple legal entities then the 250TB restriction would apply across all licensed entities.

Example 2: Parent Co. XYZ and its two subsidiaries were granted special authorization to use licenses across the three legal entities then the 250TB restriction would be calculated by taking the sum of all TB's backed up across all domains across all three legal entities.



### Quantity Tiered Platform Base Licensing

A customer bought 500 NetBackup Platform Base Complete licenses 1 year ago to cover 500 terabytes of data. The customer now wants to purchase an additional 50 terabytes of the NetBackup Platform Base license. Since historical terabytes purchased are not accounted for when choosing the correct SKU/band, the customer should purchase 50 of the '11 – 50 TBs' Platform Base Complete SKU.

### NetBackup for NDMP

Example 1: A NetApp FAS3050c has two clustered heads with only one active controller. A single NDMP Tier 3 license is required. If both controllers are active a single NDMP Tier 4 license is required.

Example 2: An EMC NS84 has four data movers (according to EMC, the last digit is the number of data movers). A single NDMP Tier 4 license is required.

### OpsCenter Analytics Option

Example 1: Mixed Backup Products: Customer has 100 backup clients, including 2 master servers and 10 media servers. Customer would buy 100 OpsCenter Analytics client licenses.

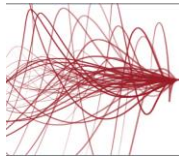
Example 2: Virtual Machines: Customer has 10 virtual machines running on a single physical server, 5 running Linux and 5 running Windows. Customer would buy one (1) OpsCenter Analytics client license (license per physical host).

### NetBackup Vault

A customer either uses NetBackup Vault to duplicate backup images from a VTL to a 10-drive physical tape library or uses Storage Lifecycle Policies to perform backup image duplication but uses NetBackup Vault to track tapes sent off-site. This would require a NetBackup Vault Base license and six NetBackup Vault Additional Drive licenses.

### Virtual Environment Scenarios

Deployment Example		Licensing Variables	Required Licenses
NetBackup clients & agents in VMs NetBackup clients & DB agents are installed within the VMs for LAN backups	<ul style="list-style-type: none"><li>• 4-socket x86 host</li><li>• XenServer</li><li>• 5 Windows VMs</li><li>• 3 Linux VMs</li><li>• 1 Oracle+WIN VM</li><li>• 1 Oracle+Linux VM</li></ul> This example applies to any x86 hypervisor, not just XenServer.	<ul style="list-style-type: none"><li>• x86 (XenServer)</li><li>• Tier 3 (see HW tier guide)</li></ul>	<ul style="list-style-type: none"><li>• 1 Standard Client for all VMs</li><li>• Total: 1 Standard Client</li><li>• 1 Pack for all Oracle instances in all VMs</li><li>• Total: 1 App/DB Pack</li></ul>



NetBackup for Hyper-V Identical to example #2. Enterprise Client license is also required for NetBackup for Hyper-V	<ul style="list-style-type: none"><li>• 4-socket x86 host</li><li>• Hyper-V</li><li>• 5 Windows VMs</li><li>• 3 Linux VMs</li><li>• 1 SQL+WIN VM</li><li>• 1 Oracle+Linux VM</li></ul>	<ul style="list-style-type: none"><li>• x86 (Hyper-V)</li><li>• Tier 3 (see HW tier guide)</li></ul>	<ul style="list-style-type: none"><li>• 1 Enterprise Client for all VMs</li><li>• Total: 1 Enterprise Client</li><li>• 1 Pack for all Oracle and SQL Server instances in all VMs</li><li>• Total: 1 App/DB Pack</li></ul>
Virtualized NetBackup Master Servers and Clients on the same host. NetBackup clients are installed within the VMs. Two Linux master servers are deployed in VMs.	<ul style="list-style-type: none"><li>• 1-socket x86 host</li><li>• Linux KVM</li><li>• 12 Linux VMs</li><li>• 2 NetBackup Masters on Linux VMs</li></ul>	<ul style="list-style-type: none"><li>• x86 (Linux KVM)</li><li>• Tier 1 (see HW tier guide)</li></ul>	<ul style="list-style-type: none"><li>• 1 Standard Client for all VMs in each domain</li><li>• Total: 2 Standard Clients</li><li>• 1 Enterprise Server for each master server</li><li>• Total: 2 Enterprise Servers for each domain</li></ul>

## 8. Frequently Asked Questions

**NetBackup Platform Base – NDMP Edition says you cannot use NetBackup Accelerator because the licensing model does not include Standard Client. However, Enterprise Server is licensed AND a NetBackup Appliance supports Accelerator, so can I mount an NFS share from a NetApp filer on an Appliance and use Accelerator with the Platform Base – NDMP base license?**

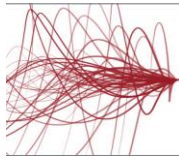
Accelerator for NDMP is included as part of the Platform Base – NDMP Edition. However, other NetBackup Accelerator workloads are not supported with the NDMP Edition. Even though you can use an NFS mount on an Appliance you still cannot use Accelerator for non-NDMP workloads with an NDMP Edition. The customer would have to upgrade any capacity they want Accelerator for from the NDMP Edition to Complete Edition in order to get Standard Client enabled.

### **How do customers enable client licenses for 10 virtual machines on NetBackup?**

Customers will not get separate license keys for the virtual machines as we don't license VMs, just the physical hosts. All client license keys are entered only on master servers and media servers. Once an Enterprise Client key is entered on the master server, you can install the client on as many VMs as you like; there is no need for an individual key for each virtual machine

**If a customer purchased the NetBackup Appliance in order to use it as a media server while using OST to backup data to Data Domain, what license will the customer need to enable OST and can the customer use the disk pool of the NetBackup appliance as a normal disk pool instead of a dedupe disk pool?**

The customer will need to buy the Data Protection Optimization Option as it contains the Advanced Disk functionality supported by the Appliance. With regards to the disk pool, the customer can use the disk pool of the NetBackup appliance as a normal disk pool instead of a dedupe disk pool but with the right NetBackup licenses along with it.



### **Does the customer need to include Enterprise Vault data as well when calculating FETB to buy the Platform Base – Complete Edition?**

Yes, the customer needs to include EV data as well. In traditional licensing, EV licenses include NetBackup EV agent and SQL agent at no extra cost. You only need to buy Standard Client for each EV server. However, with Platform Base licensing, anything that NetBackup protects must be included in the FETB capacity for licensing. This means that the capacity of the EV vault stores that you're protecting must be licensed.

### **If a customer has SAP with Oracle, is an App+DB Pack required or just NetBackup for SAP?**

As of 8.3, the SAP agent is now included in the Application & DB pack. Customers do not have to license SAP separately.

### **How many licenses are needed if two NetBackup Master Servers (i.e. two separate NetBackup domains) protect a single client?**

Two client licenses are required, one for each domain. Additionally, if two NetBackup Master Servers are installed on a single server, two licenses are required, one for each domain. For example, a single physical host running multiple virtual machines including Exchange and SQL Server would require one (1) Application and Database Pack license to cover all Exchange and SQL Server instances on the physical host, regardless of how many VMs may be running these two applications.

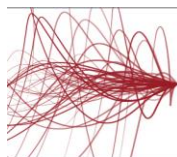
## **9. Useful Links**

- For a list of supported platforms, operating systems, and snapshot methods that Snapshot Client supports for certain backup methods, please refer to the [NetBackup OS Compatibility Guide](#)
- For an updated list of supported primary storage systems, hardware snapshot technologies, NDMP devices, tape drives, virtual tapes and libraries, please refer to the [NetBackup Hardware Compatibility Matrix](#).
- For a complete list of all NetBackup supported clustering products, refer to [NetBackup Cluster Compatibility List](#)
- Additional [NetBackup Support Information](#).

## **10. Appendix**

### **10.1. Functionality enabled by NetBackup offering full detail**

The following chart provides the same detail as the table presented in the [Licensing Overview](#) section but with more granular detail.



NetBackup Edition	Platform Base - Complete Ed. & Complete Ed. w/ FL	Platform Base - NDMP Edition	Platform Base - Limited Edition	NEVC	Platform Base - Windows & Linux Edition <sup>(1)</sup>	NBU 360
NetBackup Product/ Feature						
NetBackup Server	✓	✓	✓		✓	✓
NetBackup Ent. Server	✓	✓	✓	✓	✓	✓
NetBackup Standard Client	✓		✓		✓	✓
NetBackup Ent. Client	✓		✓	✓	✓	✓
NetBackup Application & Database Pack	✓			✓	✓	✓
NetBackup Application & Database Add-on			✓			
NetBackup Library Based Tape Drive	✓	✓	✓		✓	✓
NetBackup for NDMP	✓	✓	✓		✓	✓
NetBackup Shared Storage Option	✓	✓	✓	✓	✓	✓
NetBackup Vault Option - Base <sup>(2)</sup>	✓	✓	✓		✓	✓
Additional Drive	✓	✓	✓		✓	✓
NetBackup for SAP Agent	✓					✓
NetBackup Data Protection Optimization Option	✓	✓	✓	✓	✓	✓
NetBackup Replication Director	✓	✓	✓		✓	✓
NetBackup OpsCenter Analytics	✓	✓	✓		✓	✓
NetBackup Self Service	✓				✓	✓
NetBackup Cloud Catalyst			Included in DPOO			
NetBackup Enterprise Vault Agent			✓			
NetBackup Snapshot Manager	✓					
NetBackup CloudPoint	✓					

(1) Platform Base – Windows & Linux Edition is only available to Service Providers via VSPP.

(2) Vault Base Option includes 4 tape drives

## 10.2. End of Sale Offerings

### 10.2.1. Platform Base – Complete Edition

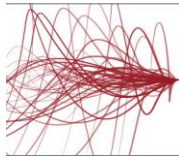
The NetBackup Platform Base - Complete Edition (Base – Complete Ed.) is only available for Front End Terabytes that are protected. If the customer has a large amount of data that will be protected using NDMP, the Platform Base – NDMP Edition may be the preferred edition.

**NOTE: As of June 15, 2019 Base – Complete Edition is not an available offering. This offering has reached End of Sale for new license purchases. Customers should purchase Base -Complete Edition with Flexible Licensing instead. Customer should continue to renew their existing Base – Complete Edition licenses.**

### 10.2.2. Platform Base – Big Data Workloads Edition

The NetBackup Platform Base - Big Data Workloads Edition (Base – Big Data Ed.) is an economical capacity-based licensing alternative for the protection of Big Data workloads. It provides a reduced capacity licensing fee for customers that need to back up large amounts of data concentrated on these storage systems. The Base - Big Data Ed. offering includes all the same features and functionality as Base - Complete Ed. and Base - Complete Ed. w/ Flexible Licensing but is limited to specific Big Data and NoSQL workloads such as Hadoop and HBase. Refer to the following [Technote](#) to understand what workloads are covered in each Platform Base offering.

**NOTE: As of September 2, 2019 Base – Big Data Edition is not an available offering. This offering has reached End of Sale. Customers should purchase Base -Complete Edition with Flexible Licensing instead.**



### 10.2.3. NetBackup Enterprise Virtual Client

NetBackup Enterprise Virtual Client (NEVC) is aimed at virtual environments, using the count of CPUs as the sole calculation meter. The Enterprise Virtual Client license offering enables customers to license NetBackup based on how many CPUs are used, rather than the number of NetBackup clients, agents, servers, and options deployed as with Traditional licensing, or the amount of source data protected as with the Platform Base license offerings. NetBackup Enterprise Virtual Client is used to protect VMware vSphere, Microsoft Hyper-V, Nutanix Acropolis Hypervisor (AHC), Openstack, Red Hat Virtualization (KVM), and AzureStack virtual environments only. Unix environments cannot be licensed with NEVC.

- NetBackup Enterprise Virtual Client licenses can be used in the same domain as Base – Complete Ed., NetBackup Platform Base – Big Data Edition, and NetBackup Platform Base – NDMP Edition. Software licensed under the traditional model must be in a separate NetBackup domain.
- NetBackup Enterprise Virtual Client license can be only be used to protect virtual environments although the associated media or master server(s) can be physical.

***NOTE: As of July 1, 2019 NetBackup Enterprise Virtual Client is not an available offering to new customers. This offering has reached End of Sale for all new sales to new customers. Customers should purchase Base - Complete Edition with Flexible Licensing instead***