



Veeam Backup & Replication As Built Report

Zen Pr Solutions

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1 VEEAM-VBR

The following section provides an overview of the implemented components of Veeam Backup & Replication.

1.1 Backup Infrastructure

The following section details configuration information about the Backup Server: VEEAM-VBR

Backup Infrastructure Inventory

Backup Proxies	4
Managed Servers	44
Backup Repositories	6
SOBR Repositories	3
Object Repository	3
WAN Accelerator	4
Cloud Service Providers	2
SureBackup Application Group	2
SureBackup Virtual Lab	2
Locations	7
Instance Licenses (Total/Used)	1000/0
Socket Licenses (Total/Used)	0/0
Capacity Licenses (Total/Used)	0TB/0TB

Table 1 - Backup Infrastructure Inventory - VEEAM-VBR

1.1.1 Backup Server

Server Name	VEEAM-VBR.pharmax.local
Version	12.0.0.1420
Database Server	VEEAM-SQL.pharmax.local
Database Instance	-
Database Name	VeeamBackup
Connection Ports	Backup Server Port: 9392 Secure Connections Port: 9401 Cloud Server Port: 10003 Cloud Service Port: 6169
Install Path	C:\Program Files\Veeam\Backup and Replication\Backup\
Audit Logs Path	C:\ProgramData\Veeam\Backup\Audit
Compress Old Audit Logs	Yes
Fips Compliant Mode	Disabled
Logging Level	4
Log Directory	C:\ProgramData\Veeam\Backup

Table 2 - Backup Server - VEEAM-VBR

1.1.1.1 Non-Default Registry Keys

Registry Key	Registry Value
AzureArchiveFreezingUnSupportedRegions	brazilsoutheast, germanynorth, westindia, norwaywest, qatarcentral, swedencentral, swedensouth, uaecentral
HighestDetectedVMCVersion	7.0.3.0
LogDirectory	C:\ProgramData\Veeam\Backup
SOBRArchivingScanPeriod	36

Table 3 - Non-Default Registry Keys - VEEAM-VBR

1.1.1.2 HealthCheck - Services Status

Display Name	Short Name	Status
Veeam AWS Service	VeeamAWSSvc	Running
Veeam Azure Service	VeeamAzureSvc	Running
Veeam CDP Coordinator Service	VeeamBackupCdpSvc	Running
Veeam Backup Server RESTful API Service	VeeamBackupRESTSvc	Running
Veeam Backup Service	VeeamBackupSvc	Running
Veeam Broker Service	VeeamBrokerSvc	Running
Veeam Guest Catalog Service	VeeamCatalogSvc	Running
Veeam CDP Proxy Service	VeeamCdpProxySvc	Running
Veeam Cloud Connect Service	VeeamCloudSvc	Running
Veeam Installer Service	VeeamDeploySvc	Running
Veeam Distribution Service	VeeamDistributionSvc	Running
Veeam Explorers Recovery Service	VeeamExplorersRecoverySvc	Running
Veeam Backup VSS Integration Service	VeeamFilesysVssSvc	Running
Veeam Cloud Gateway Service	VeeamGateSvc	Running
Veeam GCP Service	VeeamGCPsvc	Running
Veeam Kubernetes Service	VeeamKastenSvc	Running
Veeam Management Agent Service	VeeamManagementAgentSvc	Running
Veeam Mount Service	VeeamMountSvc	Running
Veeam vPower NFS Service	VeeamNFSSvc	Running
Veeam Tape Access Service	VeeamTapeSvc	Running
Veeam Data Mover Service	VeeamTransportSvc	Running
Veeam VSS Hardware Provider Service	VeeamVssProviderSvc	Running
Veeam WAN Accelerator Service	VeeamWANSvc	Running

Table 4 - HealthCheck - Services Status - VEEAM-VBR

1.1.1.3 HealthCheck - Network Statistics

Proto	Local IP	Local Port	Remote IP	Remote Port	State	Process Name	PID
UDP	0.0.0.0	1063	*	*		VeeamNFSSvc	3240
UDP	0.0.0.0	111	*	*		VeeamNFSSvc	3240
UDP	0.0.0.0	2049	*	*		VeeamNFSSvc	3240

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Proto	Local IP	Local Port	Remote IP	Remote Port	State	Process Name	PID
UDP	127.0.0.1	50685	*	*		Veeam.Backup.CatalogDataService	6712
UDP	127.0.0.1	50686	*	*		Veeam.Backup.CloudService	2936
UDP	127.0.0.1	50806	*	*		Veeam.Backup.Agent.ConfigurationService	3104
UDP	127.0.0.1	51935	*	*		Veeam.Backup.Cdp.Service	7960
UDP	0.0.0.0	58991	*	*		VeeamGateSvc	3192
UDP	0.0.0.0	6180	*	*		VeeamGateSvc	3192
UDP	127.0.0.1	63035	*	*		Veeam.Backup.Service	1872
UDP	127.0.0.1	65244	*	*		Veeam.Backup.CountService	2204
TCP	[fe80	10003	[fe80	55983	ESTABLISHED	Veeam.Backup.CloudService	2936
TCP	192.168.7.73	50992	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Service	1872
TCP	192.168.7.73	51424	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.UI Server	5544
TCP	192.168.7.73	51451	185.230.149.8	6180	ESTABLISHED	Veeam.Backup.Service	1872
TCP	192.168.7.73	52324	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Manager	1504
TCP	192.168.7.73	53078	185.230.149.8	6180	ESTABLISHED	veeam.backup.sh ell	9760
TCP	192.168.7.73	53179	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.UI Server	5544
TCP	192.168.7.73	53263	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Service	1872
TCP	192.168.7.73	53896	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Cdp.Service	7960
TCP	192.168.7.73	54070	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.UI Server	5544
TCP	192.168.7.73	54071	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.UI Server	5544
TCP	192.168.7.73	54139	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.UI Server	5544
TCP	192.168.7.73	54662	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Manager	5200
TCP	192.168.7.73	54700	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.ExternalInfrastructure.DbProvider	2356
TCP	192.168.7.73	54785	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.CloudService	2936
TCP	192.168.7.73	54861	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.WmiServer	4224
TCP	192.168.7.73	54907	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Cdp.Service	7960

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Proto	Local IP	Local Port	Remote IP	Remote Port	State	Process Name	PID
TCP	192.168.7.73	54958	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.RestAPIService	1296
TCP	192.168.7.73	55451	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.UI Server	5544
TCP	192.168.7.73	55634	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Satellite	11604
TCP	192.168.7.73	55809	192.168.5.2	443	ESTABLISHED	Veeam.Backup.BrokerService	2576
TCP	[fe80	55907	[fe80	9392	ESTABLISHED	Veeam.Backup.RestAPIService	1296
TCP	[fe80	55908	[fe80	9392	ESTABLISHED	Veeam.Backup.Manager	5200
TCP	[fe80	55913	[fe80	9392	ESTABLISHED	Veeam.Backup.Cdp.Service	7960
TCP	[fe80	55928	[fe80	9392	ESTABLISHED	Veeam.Backup.ExternalInfrastructure.DbProvider	2356
TCP	[fe80	55929	[fe80	9392	ESTABLISHED	Veeam.Backup.WmiServer	4224
TCP	[fe80	55930	[fe80	9501	ESTABLISHED	Veeam.Backup.Cdp.Service	7960
TCP	[fe80	55933	[fe80	9392	ESTABLISHED	Veeam.Backup.Manager	7412
TCP	[fe80	55938	[fe80	9392	ESTABLISHED	Veeam.Backup.Manager	1504
TCP	[fe80	55956	[fe80	9392	ESTABLISHED	Veeam.Backup.UI Server	5544
TCP	[fe80	55983	[fe80	10003	ESTABLISHED	Veeam.Backup.Service	1872
TCP	192.168.7.73	56532	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Service	1872
TCP	192.168.7.73	57703	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Service	1872
TCP	192.168.7.73	59223	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Service	1872
TCP	192.168.7.73	59383	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Service	1872
TCP	192.168.7.73	60147	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Service	1872
TCP	192.168.7.73	61452	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.BrokerService	2576
TCP	192.168.7.73	62675	192.168.7.75	1433	ESTABLISHED	Veeam.Backup.Service	1872
TCP	127.0.0.1	6290	127.0.0.1	65503	ESTABLISHED	Veeam.Guest.Integration.Proxy	4288
TCP	192.168.7.73	63409	192.168.5.2	443	ESTABLISHED	Veeam.Backup.BrokerService	2576
TCP	127.0.0.1	65503	127.0.0.1	6290	ESTABLISHED	VeeamTransportSvc	3208

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TCP	[fe80	9392	[fe80	55938	ESTABLISHED	Veeam.Backup.Service	1872
TCP	[fe80	9392	[fe80	55933	ESTABLISHED	Veeam.Backup.Service	1872
TCP	[fe80	9392	[fe80	55928	ESTABLISHED	Veeam.Backup.Service	1872
TCP	[fe80	9392	[fe80	55956	ESTABLISHED	Veeam.Backup.Service	1872
TCP	[fe80	9392	[fe80	55913	ESTABLISHED	Veeam.Backup.Service	1872
TCP	[fe80	9392	[fe80	55907	ESTABLISHED	Veeam.Backup.Service	1872
TCP	[fe80	9392	[fe80	55908	ESTABLISHED	Veeam.Backup.Service	1872
TCP	[fe80	9392	[fe80	55929	ESTABLISHED	Veeam.Backup.Service	1872
TCP	192.168.7.73	9392	192.168.7.250	33696	ESTABLISHED	Veeam.Backup.Service	1872
TCP	192.168.7.73	9396	192.168.7.250	33699	ESTABLISHED	Veeam.Backup.UI Server	5544
TCP	[fe80	9501	[fe80	55930	ESTABLISHED	Veeam.Backup.BrokerService	2576
TCP	0.0.0.0	10001	0.0.0.0	0	LISTENING	Veeam.Backup.Service	1872
TCP	0.0.0.0	10002	0.0.0.0	0	LISTENING	Veeam.Backup.Service	1872
TCP	0.0.0.0	10003	0.0.0.0	0	LISTENING	Veeam.Backup.CloudService	2936
TCP	0.0.0.0	10005	0.0.0.0	0	LISTENING	Veeam.Backup.Service	1872
TCP	0.0.0.0	10006	0.0.0.0	0	LISTENING	Veeam.Backup.Service	1872
TCP	0.0.0.0	1063	0.0.0.0	0	LISTENING	VeeamNFSSvc	3240
TCP	0.0.0.0	111	0.0.0.0	0	LISTENING	VeeamNFSSvc	3240
TCP	0.0.0.0	11731	0.0.0.0	0	LISTENING	VeeamDeploymntSvc	3092
TCP	127.0.0.1	16170	0.0.0.0	0	LISTENING	Veeam.StandBy.Service	7208
TCP	0.0.0.0	20443	0.0.0.0	0	LISTENING	Veeam.Azure.PlatformSvc	5420
TCP	0.0.0.0	2049	0.0.0.0	0	LISTENING	VeeamNFSSvc	3240
TCP	0.0.0.0	33032	0.0.0.0	0	LISTENING	VeeamCDPSvc	2892
TCP	0.0.0.0	33033	0.0.0.0	0	LISTENING	VeeamCDPSvc	2892
TCP	0.0.0.0	6160	0.0.0.0	0	LISTENING	VeeamDeploymntSvc	3092
TCP	0.0.0.0	6161	0.0.0.0	0	LISTENING	VeeamNFSSvc	3240
TCP	0.0.0.0	6162	0.0.0.0	0	LISTENING	VeeamTransportSvc	3208
TCP	0.0.0.0	6164	0.0.0.0	0	LISTENING	VeeamWANSvc	3232

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Proto	Local IP	Local Port	Remote IP	Remote Port	State	Process Name	PID
TCP	0.0.0.0	6165	0.0.0.0	0	LISTENING	VeeamWANSvc	3232
TCP	0.0.0.0	6166	0.0.0.0	0	LISTENING	VeeamTapeSvc	3224
TCP	0.0.0.0	6168	0.0.0.0	0	LISTENING	VeeamGateSvc	3192
TCP	0.0.0.0	6169	0.0.0.0	0	LISTENING	Veeam.Backup.CloudService	2936
TCP	0.0.0.0	6170	0.0.0.0	0	LISTENING	Veeam.Backup.MountService	2204
TCP	0.0.0.0	6180	0.0.0.0	0	LISTENING	VeeamGateSvc	3192
TCP	0.0.0.0	6182	0.0.0.0	0	LISTENING	VeeamCDPSvc	2892
TCP	0.0.0.0	6185	0.0.0.0	0	LISTENING	Veeam.Backup.Cdp.Service	7960
TCP	0.0.0.0	6190	0.0.0.0	0	LISTENING	Veeam.Guest.Integration.Proxy	4288
TCP	0.0.0.0	6210	0.0.0.0	0	LISTENING	VeeamFilesysVss.Svc	3160
TCP	0.0.0.0	6290	0.0.0.0	0	LISTENING	Veeam.Guest.Integration.Proxy	4288
TCP	0.0.0.0	8190	0.0.0.0	0	LISTENING	VeeamNetworkRedirector	5928
TCP	0.0.0.0	8191	0.0.0.0	0	LISTENING	VeeamNetworkRedirector	5928
TCP	0.0.0.0	9380	0.0.0.0	0	LISTENING	Veeam.Backup.Agent.Configuration.Service	3104
TCP	0.0.0.0	9381	0.0.0.0	0	LISTENING	Veeam.Backup.Agent.Configuration.Service	3104
TCP	0.0.0.0	9392	0.0.0.0	0	LISTENING	Veeam.Backup.Service	1872
TCP	0.0.0.0	9393	0.0.0.0	0	LISTENING	Veeam.Backup.CatalogDataService	6712
TCP	0.0.0.0	9396	0.0.0.0	0	LISTENING	Veeam.Backup.UI.Server	5544
TCP	0.0.0.0	9401	0.0.0.0	0	LISTENING	Veeam.Backup.Service	1872
TCP	0.0.0.0	9402	0.0.0.0	0	LISTENING	Veeam.CloudBackup.PlatformService	6088
TCP	0.0.0.0	9403	0.0.0.0	0	LISTENING	Veeam.GCP.PlatformService.WebService	7736
TCP	0.0.0.0	9403	0.0.0.0	0	LISTENING	Veeam.GCP.PlatformService.WebService	7736
TCP	0.0.0.0	9404	0.0.0.0	0	LISTENING	Veeam.Backup.PlatformServices.Kasten	8104
TCP	0.0.0.0	9404	0.0.0.0	0	LISTENING	Veeam.Backup.PlatformServices.Kasten	8104

Proto	Local IP	Local Port	Remote IP	Remote Port	State	Process Name	PID
TCP	0.0.0.0	9405	0.0.0.0	0	LISTENING	Veeam.Backup.Service	1872
TCP	0.0.0.0	9501	0.0.0.0	0	LISTENING	Veeam.Backup.BrokerService	2576
TCP	0.0.0.0	9509	0.0.0.0	0	LISTENING	Veeam.Backup.Cdp.Service	7960
TCP	192.168.7.73	55906	192.168.6.14	6160	SYN_SENT	Veeam.Backup.Service	1872
TCP	192.168.7.73	55981	192.168.7.215	6168	SYN_SENT	Veeam.Backup.Service	1872
TCP	192.168.7.73	55982	10.10.30.40	443	SYN_SENT	Veeam.Backup.BrokerService	2576
TCP	192.168.7.73	55985	10.10.33.42	443	SYN_SENT	Veeam.Backup.BrokerService	2576

Table 5 - HealthCheck - Network Statistics - VEEAM-VBR

1.1.2 Enterprise Manager Information

The following table details information about Veeam Enterprise Manager

Server Name	VEEAM-EM.pharmax.local
Server URL	https://VEEAM-EM.pharmax.local:9443
Skip License Push	No
Is Connected	Yes

Table 6 - Enterprise Manager - VEEAM-VBR

1.1.3 License Information

The following section provides a summary about the installed licenses

1.1.3.1 Installed License Information

Licensed To	Veeam Software Group GmbH
Edition	EnterprisePlus
Type	Evaluation
Status	Valid
Expiration Date	Thursday, August 31, 2023
Support Id	N/A
Support Expiration Date	-
Auto Update Enabled	No
Free Agent Instance	Yes
Cloud Connect	Enterprise

Table 7 - Licenses - VEEAM-VBR

Instance License Usage

Instances Capacity	Used Instances	New Instances	Rental Instances
1000	0	0	0

Table 8 - Instance License Usage - VEEAM-VBR

1.1.4 General Options

The following section details Veeam Backup & Replication general setting. General settings are applied to all jobs, backup infrastructure components and other objects managed by the backup server.

1.1.4.1 Configuration Backup

Name	Backup Configuration Job
Run Job Automatically	Yes
Schedule Type	Daily
Schedule Options	Type: Everyday Period: 10:00:00 Day Of Week: Sunday Monday Tuesday Wednesday Thursday Friday Saturday
Restore Points To Keep	10
Encryption Enabled	Yes
Encryption Key	Password Global
Additional Address	veeam_admin@pharmax.local
Email Subject	[%JobResult%] %JobName% (%Time%)
Notify On	Notify On Success: No Notify On Warning: Yes Notify On Error: Yes Notify On Last Retry Only: Yes
NextRun	
Target	Linux - Hardened Repository
Enabled	No
LastResult	Failed

Table 9 - Configuration Backup Settings - VEEAM-VBR

Health Check:

Best Practice: Its a recommended best practice to enable the Backup Configuration job

1.1.4.2 Email Notification

Email Recipient	veeam_admin@pharmax.local,jcolonf@zenprsolution.com
Email Sender	veeam_admin@pharmax.local
SMTP Server	veeam-ex.pharmax.local
Email Subject	[%JobResult%] %JobName% (%VmCount% machines) %Issues%
SSL Enabled	Yes
Auth Enabled	Yes
Credentials	rebelinux@gmail.com
Daily Reports Time	10:00 PM

Enabled	No
Notify On	Notify On Success: Yes Notify On Warning: Yes Notify On Failure: Yes Notify On Last Retry Only: Yes

Table 10 - Email Notification Settings - VEEAM-VBR

Health Check:

Best Practice: Veeam recommends configuring email notifications to be able to receive alerts with the results of jobs performed on the backup server.

1.1.4.3 Global Notifications

Backup Storage

Warn me when free disk space is below	Disabled
---------------------------------------	----------

Table 11 - Backup Storage Notification - VEEAM-VBR

Production Datastore

Warn me when free disk space is below	11%
Skip VM processing when free disk space is below	5%

Table 12 - Production Datastore Notification - VEEAM-VBR

Support Expiration

Enable notification about support contract expiration	Yes
---	-----

Table 13 - Support Expiration Notification - VEEAM-VBR

Update Notification

Check for product and hypervisor updates periodically	Yes
---	-----

Table 14 - Update Notification Notification - VEEAM-VBR

1.1.4.4 Storage Latency Control

Latency Limit	Throttling IO Limit	Enabled
20/ms	30/ms	Yes

Table 15 - Storage Latency Control - VEEAM-VBR

Per Datastore Latency Control Options

Datastore Name	Latency Limit	Throttling IO Limit
HDD-VM-MED-PERF-01	10/ms	15/ms

Table 16 - Per Datastore Latency Control Options - VEEAM-VBR

1.1.4.5 Backup Server TLS Certificate

Friendly Name	Veeam Backup Server Certificate
Subject Name	CN=Veeam Backup Server Certificate
Issuer Name	CN=Veeam Backup Server Certificate
Expiration Date	6/27/2032
Issued Date	6/27/2022
Thumbprint	958974015EB6E49D6B381229D2521966CB25B9BE
Serial Number	4369014BA8DF88B344C2B090F1D19974

Table 17 - TLS Certificate - VEEAM-VBR

1.1.4.6 Network Traffic Rules

The following section details network traffic rules settings configured on Veeam Backup & Replication.

Name	Inter-Site-to-DR
Source IP Start	192.168.7.1
Source IP End	192.168.7.255
Target IP Start	10.10.33.1
Target IP End	10.10.33.255
Encryption Enabled	No
Throttling	Throttling Enabled: Yes Throttling Unit: MbytePerSec Throttling Value: 10 Throttling Windows: Yes

Table 18 - Network Traffic Rules - Inter-Site-to-DR

Name	Internet
Source IP Start	Any
Source IP End	-
Target IP Start	Internet
Target IP End	-
Encryption Enabled	Yes
Throttling	Throttling Enabled: No Throttling Unit: MbitPerSec Throttling Value: 1 Throttling Windows: No

Table 19 - Network Traffic Rules - Internet

Preferred Networks

IP Address	Subnet Mask	CIDR Notation
192.168.7.0	255.255.255.0	192.168.7.0/24

Table 20 - Preferred Networks - VEEAM-VBR

1.1.5 Roles and Users

The following section provides information about roles assigned to users or groups.

Name	Type	Role
Administrators	Group	BackupAdmin

Name	Type	Role
PHARMAX\veeam_admin	User	BackupOperator
PHARMAX\rauser	User	BackupOperator

Table 21 - Roles and Users - VEEAM-VBR

1.1.6 Security Credentials

The following table provide information about the credentials managed by Veeam Backup & Replication.

Name	Change Time	Description
admin	12/14/2019	admin netapp
admin	2/24/2022	ONTAP-HQ-SAN
admin	1/16/2022	Isilon Account
administrator	12/2/2022	vCD administrator
administrator@pharmax.local	12/16/2019	administrator@pharmax.local
administrator@vsphere.local	2/27/2021	administrator@vsphere.local
backup_admin1	5/29/2020	veeam_admin netapp nmdp
backup_admin1	2/24/2022	backup_admin1
god	12/28/2021	god
god	12/28/2021	god
rebelinux@gmail.com	12/28/2021	rebelinux@gmail.com
root	12/14/2019	Azure helper appliance credentials
root	7/20/2022	ESXi root account
root	12/14/2019	Helper appliance credentials
root	12/14/2019	Provider-side network extension appliance credentials
root	12/18/2019	root
root	12/14/2019	Tenant-side network extension appliance credentials
SYS	12/18/2019	SYS
veeam	7/6/2021	veeam_dx
VEEAM	12/18/2019	VEEAM
VEEAM_ADMIN	12/18/2019	VEEAM_ADMIN
veeam_admin	12/15/2019	veeam_admin
veeam_admin@pharmax.local	12/14/2019	veeam_admin@pharmax.local
VEEAM-VBR	2/6/2022	VEEAM-VBR
VEEAM-VBR	6/30/2021	HP StoreOne VSA
ZenPRSSolutions-130858420/ZenPRSSolutions-130858420	6/9/2022	ZenPRSSolutions-130858420/ZenPRSSolutions-130858420

Table 22 - Security Credentials - VEEAM-VBR

1.1.6.1 Service Provider Credentials

The following table provide information about the service provider credentials managed by Veeam Backup & Replication.

Name	Description
godadmin	ACME Inc. Provider
jcolonfzenpr	jcolonfzenpr
ultra_super_god_admin	Super Duper Backup Provider Credential
VCC-ZenPRSolutions	VCC-ZenPRSolutions

Table 23 - Service Provider Credentials - VEEAM-VBR

1.1.7 Geographical Locations

The following section provide a summary about geographical locations.

Name	id
Brazil	ceadd22f-3872-4152-9dca-9b27af11b144
Cayey	1f13b88a-d8c0-4048-a79c-0f4575dc904a
Florida	39a4cbc6-c715-484e-b976-00560946aea9
Gurabo	39928575-1581-4f81-bd8f-348b1391bfc0
Mexico	e9ccc857-5620-48e7-b229-5bef94293cc3
San Juan	a7643c0e-ed73-4803-85f1-eef451169a54
Texas	21037406-af0a-4f39-9393-13c8f3d0c8be

Table 24 - Location - VEEAM-VBR

1.1.8 Virtualization Servers and Hosts

Name	Description	Status
veeam-lnx-px.phamax.local	Linux host	Unavailable
192.168.7.65	Linux host	Unavailable
phamax-cluster.phamax.local	Microsoft Hyper-V cluster	Available
VEEAM-HV-01	Microsoft Hyper-V server	Unavailable
VEEAM-HV-02	Microsoft Hyper-V server	Unavailable
VEEAM-HV-03.phamax.local	Microsoft Hyper-V server	Unavailable
VEEAM-VBR-02V.phamax.local	Microsoft Windows server	Available
VEEAM-HV-02.phamax.local	Microsoft Windows server	Unavailable
VEEAM-REPO-01V.phamax.local	Microsoft Windows server	Unavailable
VEEAM-HVPRX-01V.phamax.local	Microsoft Windows server	Unavailable
VEEAM-HV-03.phamax.local	Microsoft Windows server	Unavailable
VEEAM-VBR.phamax.local	Microsoft Windows server	Available
VEEAM-TPS-01V.phamax.local	Microsoft Windows server	Unavailable
VEEAM-WAN-01V.phamax.local	Microsoft Windows server	Unavailable
VEEAM-HV-01.phamax.local	Microsoft Windows server	Unavailable
server-dc-01v	Microsoft Windows server	Available
ONTAP-HQ-SAN-IC.phamax.local	NDMP server	Unavailable
192.168.5.18:/oracle	NFS file share	Available
ONTAP-HQ-SAN\NAS-VEEAM:/DATA	NFS filer	Available
ONTAP-HQ-SAN\NAS-VEEAM:/oracle	NFS filer	Available
\\\isilon_nas.phamax.local\DATA	SMB file share	Available
\\\server-dc-01v\UEMConfig	SMB file share	Available
PHARMAX-ISILON\System:\DATA	SMB filer	Available

Name	Description	Status
ONTAP-HQ-SAN\NAS-VEEAM:\data	SMB filer	Available
ONTAP-HQ-SAN\NAS-VEEAM:\c\$	SMB filer	Available
ONTAP-HQ-SAN\NAS-VEEAM:\ipc\$	SMB filer	Available
ONTAP-DR-SAN	Storage	Available
VEEAM-NTAP-CLUSTER	Storage	Available
PHARMAX-ISILON	Storage	Available
ONTAP-HQ-SAN	Storage	Available
PHARMAX-DR	Storage	Available
PHARMAX-HQ	Storage	Available
vcd-srv-01v.pharmax.local	VMware Cloud Director server	Available
comp-02a.pharmax.local	VMware ESXi server	Available
esxsvr-00f.pharmax.local	VMware ESXi server	Available
disaster-01a.pharmax.local	VMware ESXi server	Available
comp-01a.pharmax.local	VMware ESXi server	Available
comp-02a.pharmax.local	VMware ESXi server	Available
esxsvr-00f.pharmax.local	VMware ESXi server	Available
comp-01a.pharmax.local	VMware ESXi server	Available
edge-01a.pharmax.local	VMware ESXi server	Available
vcenter-03v.pharmax.local	VMware vCenter server	Available
192.168.5.2	VMware vCenter server	Available
vcenter-01v.pharmax.local	VMware vCenter server	Available

Table 25 - Managed Servers - VEEAM-VBR

1.1.9 Backup Proxies

The following section provides a summary of the Veeam Backup Proxies

1.1.9.1 VMware Backup Proxies

Name	veeam-lnx-px.pharmax.local
Host Name	veeam-lnx-px.pharmax.local
Type	Vi
Disabled	No
Max Tasks Count	2
Use Ssl	No
Failover To Network	Yes
Transport Mode	Auto
Chassis Type	ViVirtual
OS Type	Linux
Services Credential	-
Status	Unavailable

Table 26 - Backup Proxy - veeam-lnx-px.pharmax.local

Name	VMware Backup Proxy
Host Name	VEEAM-VBR.pharmax.local
Type	Vi

Veeam Backup & Replication As Built Report - v1.0

Disabled	No
Max Tasks Count	2
Use Ssl	No
Failover To Network	Yes
Transport Mode	Auto
Chassis Type	ViVirtual
OS Type	Local
Services Credential	-
Status	Available

Table 27 - Backup Proxy - VMware Backup Proxy

Name	VEEAM-VBR-02V.pharmax.local
Host Name	VEEAM-VBR-02V.pharmax.local
Type	Vi
Disabled	No
Max Tasks Count	2
Use Ssl	No
Failover To Network	Yes
Transport Mode	Auto
Chassis Type	ViVirtual
OS Type	Windows
Services Credential	administrator@pharmax.local
Status	Available

Table 28 - Backup Proxy - VEEAM-VBR-02V.pharmax.local

HealthCheck - VEEAM-VBR-02V Services Status

Display Name	Short Name	Status
Veeam Backup VSS Integration Service	VeeamFilesysVssSvc	Running
Veeam Cloud Gateway Service	VeeamGateSvc	Running
Veeam Data Mover Service	VeeamTransportSvc	Running
Veeam Explorers Recovery Service	VeeamExplorersRecoverySvc	Running
Veeam Installer Service	VeeamDeploySvc	Running
Veeam Mount Service	VeeamMountSvc	Running
Veeam Tape Access Service	VeeamTapeSvc	Running
Veeam vPower NFS Service	VeeamNFSSvc	Running
Veeam VSS Hardware Provider Service	VeeamVssProviderSvc	Running
Veeam WAN Accelerator Service	VeeamWANSvc	Running

Table 29 - HealthCheck - Services Status - VEEAM-VBR-02V

1.1.9.2 Hyper-V Backup Proxies

Name	VEEAM-HVPRX-01V.pharmax.local
Host Name	VEEAM-HVPRX-01V.pharmax.local
Type	HvOffhost
Disabled	No
Max Tasks Count	2

AutoDetect Volumes	Yes
OS Type	Windows
Services Credential	administrator@pharmax.local
Status	Unavailable

Table 30 - Backup Proxy - VEEAM-HVPRX-01V

1.1.10 WAN Accelerators

The following section provides information about WAN Accelerator. WAN accelerators are responsible for global data caching and data deduplication.

Name	VEEAM-REPO-01V.pharmax.local
Host Name	VEEAM-REPO-01V.pharmax.local
Is Public	Yes
Management Port	6164\TCP
Service IP Address	
Traffic Port	6165\TCP
Max Tasks Count	1
Download Stream Count	5
Enable Performance Mode	No
Configured Cache	Unknown
Cache Path	E:\VeeamWAN
Max Cache Size	10 GB

Table 31 - Wan Accelerator - VEEAM-REPO-01V.pharmax.local

Name	VEEAM-VBR
Host Name	VEEAM-VBR.pharmax.local
Is Public	Yes
Management Port	6164\TCP
Service IP Address	
Traffic Port	6165\TCP
Max Tasks Count	1
Download Stream Count	5
Enable Performance Mode	Yes
Configured Cache	No
Cache Path	E:\VeeamWAN
Max Cache Size	10 GB

Table 32 - Wan Accelerator - VEEAM-VBR.pharmax.local

Name	VEEAM-VBR-02V.pharmax.local
Host Name	VEEAM-VBR-02V.pharmax.local
Is Public	Yes
Management Port	6164\TCP
Service IP Address	
Traffic Port	6165\TCP
Max Tasks Count	1
Download Stream Count	5
Enable Performance Mode	No

Configured Cache	Unknown
Cache Path	E:\VeeamWAN
Max Cache Size	100 GB

Table 33 - Wan Accelerator - VEEAM-VBR-02V.pharmax.local

Name	VEEAM-WAN-01V.pharmax.local
Host Name	VEEAM-WAN-01V.pharmax.local
Is Public	Yes
Management Port	6164\TCP
Service IP Address	
Traffic Port	6165\TCP
Max Tasks Count	1
Download Stream Count	5
Enable Performance Mode	No
Configured Cache	Unknown
Cache Path	C:\VeeamWAN
Max Cache Size	10 GB

Table 34 - Wan Accelerator - VEEAM-WAN-01V.pharmax.local

1.1.11 Service Providers

The following section provides a summary about configured Veeam Cloud Service Providers.

DNS Name	Cloud Connect Type	Managed By Provider
uk-rep04.peasoup.net	BaaS	No
vcc.virtualdcs.co.uk	Unknown	Yes

Table 35 - Service Providers - VEEAM-VBR

1.1.12 Backup Repository

The following section provides Backup Repository summary information.

Name	Total Space	Free Space	Used Space %	Status
cloud-jcolonfzenpr-01	1000 Gb	923 Gb	8	Available
HQ - Backups	199 Gb	198 Gb	1	Unavailable
Linux - Hardened Repository	199 Gb	187 Gb	6	Unavailable
VEEAM-DD	351 Gb	291 Gb	17	Unavailable
VEEAM-HPE-StoreOnce-VSA	0 Gb	0 Gb	0	Unavailable
VEEAM-VBR - E:\	499 Gb	344 Gb	31	Available
VEEAM-VBR - F:\	99 Gb	95 Gb	4	Available
VEEAM-VBR-02V - E:\	99 Gb	5 Gb	95	Available
VEEAM-VBR-02V - F:\	99 Gb	90 Gb	9	Available

Table 36 - Backup Repository - VEEAM-VBR

1.1.12.1 Backup Repository Configuration

Veeam Backup & Replication As Built Report - v1.0

The following section provides a detailed information of the Veeam Backup Repository Configuration.

cloud-jcolonfzenpr-01

Backup Proxy	uk-rep04.peasoup.net
Integration Type	Cloud
Path	
Connection Type	Cloud
Max Task Count	-1
Use Nfs On Mount Host	No
San Snapshot Only	No
Dedup Storage	No
Split Storages Per Vm	Yes
Immutability Supported	Yes
Immutability Enabled	No
Immutability Interval	7
Version Of Creation	11.0.1.1261
Has Backup Chain Length Limitation	No

Table 37 - Backup Repository - cloud-jcolonfzenpr-01

Health Check:

Best Practice: Veeam recommend to implement Immutability where it is supported. It is done for increased security: immutability protects your data from loss as a result of attacks, malware activity or any other injurious actions.

HQ - Backups

Backup Proxy	VEEAM-REPO-01V.pharmax.local
Integration Type	Windows
Path	E:\Backups
Connection Type	WinLocal
Max Task Count	4
Use Nfs On Mount Host	Yes
San Snapshot Only	No
Dedup Storage	No
Split Storages Per Vm	Yes
Immutability Supported	No
Immutability Enabled	No
Immutability Interval	7
Version Of Creation	11.0.1.1261
Has Backup Chain Length Limitation	No

Table 38 - Backup Repository - HQ - Backups

Linux - Hardened Repository

Backup Proxy	veeam-lnx-px.pharmax.local
Integration Type	Linux
Path	/backup_data/backups
Connection Type	LinuxLocal
Max Task Count	4

Use Nfs On Mount Host	Yes
San Snapshot Only	No
Dedup Storage	No
Split Storages Per Vm	No
Immutability Supported	No
Immutability Enabled	No
Immutability Interval	7
Version Of Creation	11.0.1.1261
Has Backup Chain Length Limitation	No

Table 39 - Backup Repository - Linux - Hardened Repository

VEEAM-DD

Backup Proxy	VEEAM-VBR.phamax.local
Integration Type	Dell Data Domain
Path	ddboost://VEEAM-DD.phamax.local:VEEAM_BACKUP@/
Connection Type	DDBoost
Max Task Count	15
Use Nfs On Mount Host	Yes
San Snapshot Only	No
Dedup Storage	Yes
Split Storages Per Vm	Yes
Immutability Supported	No
Immutability Enabled	No
Immutability Interval	7
Version Of Creation	9.5.4.2866
Has Backup Chain Length Limitation	Yes

Table 40 - Backup Repository - VEEAM-DD

VEEAM-HPE-StoreOnce-VSA

Backup Proxy	VEEAM-VBR.phamax.local
Integration Type	HPE StoreOnce
Path	storeonce://veeam-hsv.phamax.local:VEEAM-VLT-HPE@/
Connection Type	HPStoreOnceIntegration
Max Task Count	4
Use Nfs On Mount Host	Yes
San Snapshot Only	No
Dedup Storage	Yes
Split Storages Per Vm	Yes
Immutability Supported	Yes
Immutability Enabled	No
Immutability Interval	7
Version Of Creation	11.0.0.837
Has Backup Chain Length Limitation	Yes

Table 41 - Backup Repository - VEEAM-HPE-StoreOnce-VSA

Health Check:

Best Practice: Veeam recommend to implement Immutability where it is supported. It is done for increased security: immutability protects your data from loss as a result of attacks, malware activity or any other injurious actions.

VEEAM-VBR - E:\

Extent of ScaleOut Backup Repository	SOBR - Minio
Backup Proxy	VEEAM-VBR.pharmax.local
Integration Type	Windows
Path	E:\Backups
Connection Type	WinLocal
Max Task Count	4
Use Nfs On Mount Host	Yes
San Snapshot Only	No
Dedup Storage	No
Split Storages Per Vm	No
Immutability Supported	No
Immutability Enabled	No
Immutability Interval	7
Version Of Creation	10.0.0.4461
Has Backup Chain Length Limitation	No

Table 42 - Backup Repository - VEEAM-VBR - E:\

VEEAM-VBR - F:\

Extent of ScaleOut Backup Repository	SOBR - AWS S3
Backup Proxy	VEEAM-VBR.pharmax.local
Integration Type	Windows
Path	F:\Backup
Connection Type	WinLocal
Max Task Count	4
Use Nfs On Mount Host	Yes
San Snapshot Only	No
Dedup Storage	No
Split Storages Per Vm	No
Immutability Supported	No
Immutability Enabled	No
Immutability Interval	7
Version Of Creation	9.0.0.0
Has Backup Chain Length Limitation	No

Table 43 - Backup Repository - VEEAM-VBR - F:\

VEEAM-VBR-02V - E:\

Extent of ScaleOut Backup Repository	SOBR - AWS S3
Backup Proxy	VEEAM-VBR-02V.pharmax.local
Integration Type	Windows
Path	E:\Backups
Connection Type	WinLocal
Max Task Count	4

Use Nfs On Mount Host	Yes
San Snapshot Only	No
Dedup Storage	No
Split Storages Per Vm	No
Immutability Supported	No
Immutability Enabled	No
Immutability Interval	7
Version Of Creation	11.0.1.1261
Has Backup Chain Length Limitation	No

Table 44 - Backup Repository - VEEAM-VBR-02V - E:\

VEEAM-VBR-02V - F:\

Extent of ScaleOut Backup Repository	SOBR - Azure Blob
Backup Proxy	VEEAM-VBR-02V.pharmax.local
Integration Type	Windows
Path	F:\Backups
Connection Type	WinLocal
Max Task Count	4
Use Nfs On Mount Host	Yes
San Snapshot Only	No
Dedup Storage	No
Split Storages Per Vm	No
Immutability Supported	No
Immutability Enabled	No
Immutability Interval	7
Version Of Creation	11.0.1.1261
Has Backup Chain Length Limitation	No

Table 45 - Backup Repository - VEEAM-VBR-02V - F:\

1.1.13 Object Storage Repository

The following section provides a summary about the Veeam Object Storage Repository.

Name	Type	Connection Type	Gateway Server
AWS - S3 - Backup	AmazonS3	Gateway	VEEAM-VBR.pharmax.local
Object storage repository - Minio	AmazonS3Compatible	Direct	Direct Mode
OS - Azure Blob	AzureBlob	Gateway	VEEAM-VBR.pharmax.local

Table 46 - Object Storage Repository - VEEAM-VBR

1.1.13.1 Object Storage Repository Configuration

The following section provides detailed information about Object Storage Backup Repository

AWS - S3 - Backup

Name	AWS - S3 - Backup
Type	AmazonS3
Amazon S3 Folder	backuptest
Immutability Period	30
Immutability Enabled	No
Size Limit Enabled	No
Size Limit	10240
Connection Type	Gateway
Gateway Server	VEEAM-VBR.pharmax.local
Use IA Storage Class	No
Use OZ IA Storage Class	No

Table 47 - Object Storage Repository - AWS - S3 - Backup

Health Check:

Best Practice: Veeam recommend to implement Immutability where it is supported. It is done for increased security: immutability protects your data from loss as a result of attacks, malware activity or any other injurious actions.

Object storage repository - Minio

Name	Object storage repository - Minio
Service Point	https://veeam-minio.pharmax.local:9000/
Type	AmazonS3Compatible
Amazon S3 Folder	SOBR
Immutability Period	30
Immutability Enabled	No
Size Limit Enabled	Yes
Size Limit	10240
Connection Type	Direct

Table 48 - Object Storage Repository - Object storage repository - Minio

Health Check:

Best Practice: Veeam recommend to implement Immutability where it is supported. It is done for increased security: immutability protects your data from loss as a result of attacks, malware activity or any other injurious actions.

OS - Azure Blob

Name	OS - Azure Blob
Type	AzureBlob
Immutability Enabled	No
Size Limit Enabled	No
Size Limit	10240
Connection Type	Gateway
Gateway Server	VEEAM-VBR.pharmax.local
Azure Blob Name	Veeam
Azure Blob Container	veeam-backup

Table 49 - Object Storage Repository - OS - Azure Blob

Health Check:

Best Practice: Veeam recommend to implement Immutability where it is supported. It is done for increased security: immutability protects your data from loss as a result of attacks, malware activity or any other injurious actions.

1.1.14 Archive Object Storage Repository

The following section provides detailed information about Archive Object Storage Repository

AWS - S3 Glacier

Gateway Server	veeam-lnx-px
Gateway Server Enabled	-
Immutability Enabled	No
Archive Type	AmazonS3Glacier
Deep Archive	Yes
Proxy Instance Type	m5a.large
Proxy Instance vCPU	2
Proxy Instance Memory	8
Proxy Subnet	172.31.32.0/20
Proxy Security Group	veeam-auto-cfdff081-b091-4108-a943-a03340a08644
Proxy Availability Zone	us-east-1b

Table 50 - Archive Object Storage Repository - AWS - S3 Glacier

Health Check:

Best Practice: Veeam recommend to implement Immutability where it is supported. It is done for increased security: immutability protects your data from loss as a result of attacks, malware activity or any other injurious actions.

Azure - Blob Archives

Gateway Server	veeam-lnx-px
Gateway Server Enabled	-
Immutability Enabled	No
Archive Type	AzureArchive
Service Type	ArchiveTier
Archive Container	veeamarchive
Archive Folder	Archive
Proxy Resource Group	
Proxy Network	
Proxy VM Size	
Proxy VM vCPU	
Proxy VM Memory	0
Proxy VM Max Disks	
Proxy VM Location	

Table 51 - Archive Object Storage Repository - Azure - Blob Archives

Health Check:

Best Practice: Veeam recommend to implement Immutability where it is supported. It is done for increased security: immutability protects your data from loss as a result of attacks, malware activity or any other injurious actions.

1.1.15 ScaleOut Backup Repository

The following section provides a summary about ScaleOut Backup Repository

Name	Performance Tier	Capacity Tier	Archive Tier
SOBR - AWS S3	VEEAM-VBR - F:\ VEEAM-VBR-02V - E:\	AWS - S3 - Backup	AWS - S3 Glacier
SOBR - Azure Blob	VEEAM-VBR-02V - F:\	OS - Azure Blob	Azure - Blob Archives
SOBR - Minio	VEEAM-VBR - E:\	Object storage repository - Minio	Not configured

Table 52 - Scale Backup Repository - VEEAM-VBR

1.1.15.1 ScaleOut Backup Repository Configuration

The following section provides a detailed information about the ScaleOut Backup Repository

1.1.15.1.1 SOBR - AWS S3

General Settings

Placement Policy	Performance
Use Per VM Backup Files	Yes
Perform Full When Extent Offline	No
Use Capacity Tier	Yes
Encrypt data uploaded to Object Storage	No
Encryption Key	Disabled
Move backup file older than	14
Override Policy Enabled	No
Override Space Threshold	90
Use Archive GFS Tier	Yes
Archive GFS Backup older than	90 days
Store archived backup as standalone fulls	No
Cost Optimized Archive Enabled	Yes
Description	Created by PHARMAX\jocolon at 12/21/2021 8:08 PM.

Table 53 - General Settings - SOBR - AWS S3

Health Check:

Best Practice: *Veeam Backup & Replication allows you to encrypt offloaded data. With the Encrypt data uploaded to object storage setting selected, the entire collection of blocks along with the metadata will be encrypted while being offloaded regardless of the jobs encryption settings. This helps you protect the data from an unauthorized access.*

Performance Tier

Name	VEEAM-VBR - F:\
Repository	VEEAM-VBR - F:\
Path	F:\Backup
Total Space	99.99 GB

Used Space	95 5 GB
Status	Normal

Table 54 - Performance Tier - VEEAM-VBR - F:\

Performance Tier

Name	VEEAM-VBR-02V - E:\
Repository	VEEAM-VBR-02V - E:\
Path	E:\Backups
Total Space	99 99 GB
Used Space	95 5 GB
Status	Normal

Table 55 - Performance Tier - VEEAM-VBR-02V - E:\

Capacity Tier

Name	AWS - S3 - Backup
Type	AmazonS3
Amazon S3 Folder	backuptest
Use Gateway Server	-
Gateway Server	VEEAM-VBR.pharmax.local
Immutability Period	30
Immutability Enabled	No
Size Limit Enabled	No
Size Limit	10240
Use IA Storage Class	No
Use OZ IA Storage Class	No

Table 56 - Capacity Tier - AWS - S3 - Backup

Offload Window Time Period

Permitted \ Denied

H	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
Sun																								
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								

Table 57 - Offload Window - AWS - S3 - Backup

Archive Tier

Name	AWS - S3 Glacier
Type	AmazonS3Glacier
Use Gateway Server	-
Gateway Server	veeam-lnx-px.pharmax.local

Table 58 - Archive Tier - AWS - S3 Glacier

1.1.15.1.2 SOBR - Azure Blob

General Settings

Placement Policy	Data Locality
Use Per VM Backup Files	Yes
Perform Full When Extent Offline	No
Use Capacity Tier	Yes
Encrypt data uploaded to Object Storage	Yes
Encryption Key	Password Global
Move backup file older than	14
Override Policy Enabled	No
Override Space Threshold	90
Use Archive GFS Tier	Yes
Archive GFS Backup older than	90 days
Store archived backup as standalone fulls	No
Cost Optimized Archive Enabled	Yes
Description	Created by PHARMAX\jocolon at 12/22/2021 8:15 PM.

Table 59 - General Settings - SOBR - Azure Blob

Performance Tier

Name	VEEAM-VBR-02V - F:\
Repository	VEEAM-VBR-02V - F:\
Path	F:\Backups
Total Space	99 GB
Used Space	90 GB
Status	Normal

Table 60 - Performance Tier - VEEAM-VBR-02V - F:\

Capacity Tier

Name	OS - Azure Blob
Type	AzureBlob
Use Gateway Server	-
Gateway Server	VEEAM-VBR.pharmax.local
Immutability Period	30
Immutability Enabled	No
Size Limit Enabled	No
Size Limit	10240
Azure Blob Name	Veeam
Azure Blob Container	veeam-backup

Table 61 - Capacity Tier - OS - Azure Blob

Offload Window Time Period

Permitted \ Denied

H	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
Sun																								
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								

Table 62 - Offload Window - OS - Azure Blob

Archive Tier

Name	Azure - Blob Archives
Type	AzureArchive
Use Gateway Server	-
Gateway Server	veeam-lnx-px.pharmax.local
Azure Service Type	ArchiveTier
Azure Blob Name	Archive
Azure Blob Container	veeamarchive

Table 63 - Archive Tier - Azure - Blob Archives

1.1.15.1.3 SOBR - Minio

General Settings

Placement Policy	Data Locality
Use Per VM Backup Files	Yes
Perform Full When Extent Offline	No
Use Capacity Tier	Yes
Encrypt data uploaded to Object Storage	Yes
Encryption Key	Password Global
Move backup file older than	14
Override Policy Enabled	No
Override Space Threshold	90
Use Archive GFS Tier	No
Archive GFS Backup older than	90 days
Store archived backup as standalone fulls	No
Cost Optimized Archive Enabled	Yes
Description	Created by PHARMAX\administrator at 2/27/2021 7:29 PM.

Table 64 - General Settings - SOBR - Minio

Performance Tier

Name	VEEAM-VBR - E:\
Repository	VEEAM-VBR - E:\

Veeam Backup & Replication As Built Report - v1.0

Path	E:\Backups
Total Space	499 GB
Used Space	344 GB
Status	Normal

Table 65 - Performance Tier - VEEAM-VBR - E:\

Capacity Tier

Name	Object storage repository - Minio
Service Point	https://veeam-minio.pharmax.local:9000/
Type	AmazonS3Compatible
Amazon S3 Folder	SOBR
Use Gateway Server	-
Gateway Server	VEEAM-WAN-01V.pharmax.local VEEAM-VBR.pharmax.local VEEAM-HVPRX-01V.pharmax.local server-dc-01v VEEAM-REPO-01V.pharmax.local VEEAM-HV-01 VEEAM-HV-01.pharmax.local VEEAM-HV-03.pharmax.local VEEAM-HV-03.pharmax.local VEEAM-TPS-01V.pharmax.local VEEAM-HV-02 VEEAM-HV-02.pharmax.local VEEAM-VBR-02V.pharmax.local veeam-lnx-px.pharmax.local
Immutability Period	30
Immutability Enabled	No
Size Limit Enabled	Yes
Size Limit	10240

Table 66 - Capacity Tier - Object storage repository - Minio

Offload Window Time Period

Permitted \ Denied		12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
Sun																									
Mon																									
Tue																									
Wed																									
Thu																									
Fri																									
Sat																									

Table 67 - Offload Window - Object storage repository - Minio

1.1.16 SureBackup Configuration

The following section provides configuration information about SureBackup.

1.1.16.1 Application Groups

The following section provides a summary about Application Groups.

Name	VM List
HV - APPGroup	LNX-WEB-01
PHARMAX-AG	smallserver-01v, LINUX-VM

Table 68 - Application Group - VEEAM-VBR

1.1.16.2 HV - APPGroup VM Settings

LNX-WEB-01

VM Name	LNX-WEB-01
Credentials	administrator@pharmax.local
Role	WebServer
Test Script	WebServer
Startup Options	Allocated Memory: 100 Heartbeat Check: Yes Maximum Boot Time: 600 App Init Timeout: 120 Ping Check: Yes

Table 69 - Application Group VM Settings - LNX-WEB-01

1.1.16.3 PHARMAX-AG VM Settings

smallserver-01v

VM Name	smallserver-01v
Credentials	-
Role	-
Test Script	-
Startup Options	Allocated Memory: 100 Heartbeat Check: Yes Maximum Boot Time: 600 App Init Timeout: 120 Ping Check: Yes

Table 70 - Application Group VM Settings - smallserver-01v

LINUX-VM

VM Name	LINUX-VM
Credentials	root
Role	DNSServer, DomainControllerAuthoritative, GlobalCatalog, MailServer, SQLServer, VBO, WebServer
Test Script	WebServer, SQLServer, DNSServer, DomainController, GlobalCatalog, MailServer, VBO
Startup Options	Allocated Memory: 100 Heartbeat Check: No Maximum Boot Time: 7800

App Init Timeout: 120
Ping Check: No

Table 71 - Application Group VM Settings - LINUX-VM

1.1.16.4 Virtual Labs

The following section provides a summary about SureBackup Virtual Lab.

Name	Platform	Physical Host	Physical Host Version
PHARMAX-VLAB	VMWare	esxsvr-00f	VMware ESXi 8.0.1 build-21495797
PHARMAX-VLAB-HYPER-V	HyperV	VEEAM-HV-03	Microsoft Windows Server 2022 Datacenter Evaluation 64-bit (10.0.20348 build:20348)

Table 72 - Virtual Lab - VEEAM-VBR

1.1.16.4.1 vSphere Virtual Labs Configuration

1.1.16.4.1.1 PHARMAX-VLAB Settings

Host	esxsvr-00f.pharmax.local
Resource Pool	PHARMAX-VLAB
VM Folder	PHARMAX-VLAB
Cache Datastore	SSD-VM-HIGH-CAPACITY-PERF-KN
Proxy Appliance Enabled	Yes
Proxy Appliance	PHARMAX-VLAB
Networking Type	Advanced
Production Network	DVS-Esx-VM-Network-DR DVS-ESXi-MANAGEMENT
Isolated Network	PHARMAX-VLAB DVS-Esx-VM-Network-DR PHARMAX-VLAB DVS-ESXi-MANAGEMENT
Routing Between vNics	No
Multi Host	No
Static IP Mapping	Yes

Table 73 - Virtual Lab Settings - PHARMAX-VLAB

vNIC Settings

Isolated Network	VLAN ID	DHCP Enabled	Network Properties
PHARMAX-VLAB DVS-ESXi-MANAGEMENT	5	Yes	IP Address: 192.168.5.254 Subnet Mask: 255.255.255.0 Masquerade IP: 192.168.255.0 DNS Server: 192.168.5.1
PHARMAX-VLAB DVS-Esx-VM-Network-DR	33	Yes	IP Address: 10.10.33.254 Subnet Mask: 255.255.255.0 Masquerade IP: 10.255.255.0 DNS Server: 192.168.5.1

Table 74 - vNIC Settings - PHARMAX-VLAB

IP Address Mapping

Production Network	Isolated IP Address	Access IP Address	Notes
DVS-Esxi-VM-Network-DR	10.10.33.4	192.168.5.3	

Table 75 - IP Address Mapping - PHARMAX-VLAB

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined notes. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

1.2 Tape Infrastructure

The following section details Tape Infrastructure configuration information

Tape Infrastructure

Tape Servers	4
Tape Library	4
Tape MediaPool	9
Tape Vault	2
Tape Drives	17
Tape Medium	50

Table 76 - Tape Infrastructure Inventory - VEEAM-VBR

1.2.1 Tape Servers

Name	Description	Status
VEEAM-REPO-01V.pharmax.local	Created by PHARMAX\administrator at 10/21/2022 11:18 AM.	Unavailable
VEEAM-TPS-01V.pharmax.local	Created by PHARMAX\administrator at 10/13/2022 10:06 AM.	Unavailable
VEEAM-VBR	Pharmax HQ Tape Server	Available
VEEAM-VBR-02V.pharmax.local	Created by PHARMAX\jocolon at 1/6/2022 9:16 PM.	Unavailable

Table 77 - Tape Server - VEEAM-VBR

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

1.2.2 Tape Libraries

The following section provides summary information about Tape Server connected Tape Library.

1.2.2.1 ATL P3000 6.24

Library Name	ATL P3000 6.24
Library Model	P3000
Library Type	Automated
Number of Slots	20
Connected to	VEEAM-VBR-02V.pharmax.local
Enabled	Yes
Status	Unavailable

Table 78 - Tape Library - ATL P3000 6.24

Tape Drives

Name	Model	Serial Number	Medium	Enabled	Is Locked	State
Tape1	QUANTUM SDLT600	45C5500101	-	No	No	Offline
Tape3	QUANTUM SDLT600	45C5500102	-	No	No	Offline
Tape4	QUANTUM SDLT600	45C5500103	-	No	No	Offline

Table 79 - Tape Drives - ATL P3000 6.24

Tape Mediums

Name	Expiration Date	Total Space	Free Space	Locked	Retired	Worm
vbr02vS	-	320 GB	320 GB	No	No	No
vbr03vS	-	320 GB	320 GB	No	No	No
vbr04vS	-	320 GB	320 GB	No	No	No
vbr05vS	-	320 GB	320 GB	No	No	No
vbr06vS	-	320 GB	320 GB	No	No	No
vbr07vS	-	320 GB	320 GB	No	No	No
vbr08vS	-	320 GB	320 GB	No	No	No
vbr09vS	-	320 GB	320 GB	No	No	No

Table 80 - Tape Mediums - ATL P3000 6.24

1.2.2.2 ATL P7000 6.24

Library Name	ATL P7000 6.24
Library Model	P7000
Library Type	Automated
Number of Slots	20
Connected to	VEEAM-TPS-01V.pharmax.local
Enabled	Yes
Status	Unavailable

Table 81 - Tape Library - ATL P7000 6.24

Tape Drives

Name	Model	Serial Number	Medium	Enabled	Is Locked	State
Tape1	IBM ULT3580-TD5	6809000813	-	No	No	Offline
Tape2	IBM ULT3580-TD5	8610160196	-	No	No	Offline
Tape3	IBM ULT3580-TD5	0741559482	-	No	No	Offline

Table 82 - Tape Drives - ATL P7000 6.24

Tape Mediums

Name	Expiration Date	Total Space	Free Space	Locked	Retired	Worm
tps01vL5	-	0 KB	0 KB	No	No	No
tps02vL5	-	0 KB	0 KB	No	No	No
tps03vL5	-	0 KB	0 KB	No	No	No
tps04vL5	-	0 KB	0 KB	No	No	No
tps05vL5	-	0 KB	0 KB	No	No	No
tps06vL5	-	0 KB	0 KB	No	No	No
tps07vL5	-	0 KB	0 KB	No	No	No
tps08vL5	-	0 KB	0 KB	No	No	No

Table 83 - Tape Mediums - ATL P7000 6.24

1.2.2.3 QUANTUM Scalar i2000 7000

Library Name	QUANTUM Scalar i2000 7000
Library Model	Scalar i2000
Library Type	Automated
Number of Slots	20
Connected to	VEEAM-VBR
Enabled	Yes
Status	Unavailable

Table 84 - Tape Library - QUANTUM Scalar i2000 7000

Tape Drives

Name	Model	Serial Number	Medium	Enabled	Is Locked	State
Tape1	IBM ULT3580-TD8	0527746823	-	No	No	Offline
Tape3	IBM ULT3580-TD8	1657072330	-	No	No	Offline
Tape5	IBM ULT3580-TD8	1260008002	-	No	No	Offline

Table 85 - Tape Drives - QUANTUM Scalar i2000 7000

Tape Mediums

Name	Expiration Date	Total Space	Free Space	Locked	Retired	Worm
affe23L8	3/26/2022	12 TB	12 TB	No	No	No
affe24L8	6/4/2022	12 TB	12 TB	No	No	No
affe25L8	-	12 TB	12 TB	No	No	No
affe26L8	3/5/2022	12 TB	12 TB	No	No	No
affe27L8	-	12 TB	12 TB	No	No	No
affe28L8	-	12 TB	12 TB	No	No	No
affe29L8	-	12 TB	12 TB	No	No	No
affe30L8	-	12 TB	12 TB	No	No	No
TEK000L8	6/30/2021	12 TB	12 TB	No	No	No
TEK001L8	7/5/2022	12 TB	12 TB	No	No	No
TEK002L8	1/3/2023	12 TB	12 TB	No	No	No
WRM232LY	-	12 TB	12 TB	No	No	Yes
WRM233LY	-	12 TB	12 TB	No	No	Yes
WRM234LY	-	12 TB	12 TB	No	No	Yes
WRM235LY	-	12 TB	12 TB	No	No	Yes
WRM236LY	-	12 TB	12 TB	No	No	Yes
WRM237LY	-	12 TB	12 TB	No	No	Yes
WRM238LY	-	12 TB	12 TB	No	No	Yes
WRM239LY	-	12 TB	12 TB	No	No	Yes
WRM240LY	-	12 TB	12 TB	No	No	Yes
WRM241LY	-	12 TB	12 TB	No	No	Yes

Table 86 - Tape Mediums - QUANTUM Scalar i2000 7000

1.2.2.4 QUANTUM Scalar i2000 7000

Library Name	QUANTUM Scalar i2000 7000
Library Model	Scalar i2000
Library Type	Automated
Number of Slots	20
Connected to	VEEAM-TPS-01V.pharmax.local
Enabled	Yes
Status	Unavailable

Table 87 - Tape Library - QUANTUM Scalar i2000 7000

Tape Drives

Name	Model	Serial Number	Medium	Enabled	Is Locked	State
Tape0	IBM ULT3580-TD8	0410608996	-	No	No	Offline
Tape10	IBM ULT3580-TD8	8545474151	-	No	No	Offline
Tape4	IBM ULT3580-TD8	9848941746	-	No	No	Offline
Tape5	IBM ULT3580-TD8	6950900071	-	No	No	Offline

Name	Model	Serial Number	Medium	Enabled	Is Locked	State
Tape6	IBM ULT3580-TD8	2773846603	-	No	No	Offline
Tape7	IBM ULT3580-TD8	9352972755	-	No	No	Offline
Tape8	IBM ULT3580-TD8	7825242222	-	No	No	Offline
Tape9	IBM ULT3580-TD8	2508671867	-	No	No	Offline

Table 88 - Tape Drives - QUANTUM Scalar i2000 7000

Tape Mediums

Name	Expiration Date	Total Space	Free Space	Locked	Retired	Worm
tps02vL8	-	0 KB	0 KB	No	No	No
tps03vL8	-	0 KB	0 KB	No	No	No
tps04vL8	-	0 KB	0 KB	No	No	No
tps05vL8	-	0 KB	0 KB	No	No	No
tps06vL8	-	0 KB	0 KB	No	No	No
tps07vL8	-	0 KB	0 KB	No	No	No
tps08vL8	-	0 KB	0 KB	No	No	No
tps09vL8	-	0 KB	0 KB	No	No	No
tps10vL8	-	0 KB	0 KB	No	No	No
tps11vL8	-	0 KB	0 KB	No	No	No

Table 89 - Tape Mediums - QUANTUM Scalar i2000 7000

1.2.3 Tape Media Pools

Name	Type	Tape Count	Total Space	Free Space	Tape Library
Free	Free	9	2 TB	2 TB	QUANTUM Scalar i2000 7000 ATL P7000 6.24 ATL P3000 6.24 QUANTUM Scalar i2000 7000
GFS Media Pool 1	Gfs	1	70 TB	70 TB	QUANTUM Scalar i2000 7000
Imported	Imported	0	0 KB	0 KB	QUANTUM Scalar i2000 7000 ATL P7000 6.24 ATL P3000 6.24 QUANTUM Scalar i2000 7000
Oracle - Media Pool	Custom	4	24 TB	24 TB	QUANTUM Scalar i2000 7000 ATL P3000 6.24 QUANTUM Scalar i2000 7000

Name	Type	Tape Count	Total Space	Free Space	Tape Library
Retired	Retired	0	0 KB	0 KB	QUANTUM Scalar i2000 7000 ATL P7000 6.24 ATL P3000 6.24 QUANTUM Scalar i2000 7000
Standard Media Pool	Custom	3	35 TB	35 TB	QUANTUM Scalar i2000 7000
Unrecognized	Unrecognized	18	0 KB	0 KB	QUANTUM Scalar i2000 7000 ATL P7000 6.24 ATL P3000 6.24 QUANTUM Scalar i2000 7000
WORM GFS Media Pool 1	Gfs	0	59 TB	59 TB	QUANTUM Scalar i2000 7000
WORM Media Pool 1	Custom	5	59 TB	59 TB	QUANTUM Scalar i2000 7000

Table 90 - Tape Media Pools - VEEAM-VBR

1.2.4 Tape Media Pools Configuration

1.2.4.1 GFS Media Pool 1

Tape Library

Library Name	QUANTUM Scalar i2000 7000
Library Id	8e943722-c1a5-451a-9fa1-a1e5ebda79a3
Type	Automated
State	Offline
Model	Scalar i2000
Drives	Drive 1, Drive 2, Drive 3
Slots	20
Tape Count	1
Total Space	70 TB
Free Space	70 TB
Add Tape from Free Media Pool	Yes
Automatically when more Tape are Required	
Description	
Library Mode	Active (Used Always)

Table 91 - Tape Library - GFS Media Pool 1

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Tape Mediums

Name	Is Worm?	Total Space	Free Space	Tape Library
affe27L8	No	12 TB	12 TB	QUANTUM Scalar i2000 7000
affe29L8	No	12 TB	12 TB	QUANTUM Scalar i2000 7000
affe30L8	No	12 TB	12 TB	QUANTUM Scalar i2000 7000
TEK000L8	No	12 TB	12 TB	QUANTUM Scalar i2000 7000
TEK001L8	No	12 TB	12 TB	QUANTUM Scalar i2000 7000
TEK002L8	No	12 TB	12 TB	QUANTUM Scalar i2000 7000

Table 92 - Tape Mediums - QUANTUM Scalar i2000 7000

Gfs Media Set

Daily Media Set Options

Override Protection Period	0
Medium	TEK000L8
Media Set Name	Daily media set #%%id% %date%
Add Tapes from Media Pool Automatically	Yes
Append Backup Files to Incomplete Tapes	Yes
Move All Offline Tape into the following Media Vault	Yes
Vault	DR - Tape Vault

Table 93 - Gfs Media Set - Daily Media Set Options

Weekly Media Set Options

Override Protection Period	4
Medium	affe27L8
Media Set Name	Weekly media set #%%id% %date%
Add Tapes from Media Pool Automatically	Yes
Append Backup Files to Incomplete Tapes	No

Table 94 - Gfs Media Set - Weekly Media Set Options

Monthly Media Set Options

Override Protection Period	12
Medium	affe29L8
Media Set Name	Monthly media set #%%id% %date%
Add Tapes from Media Pool Automatically	Yes
Append Backup Files to Incomplete Tapes	No

Table 95 - Gfs Media Set - Monthly Media Set Options

Quarterly Media Set Options

Override Protection Period	4
Medium	TEK001L8
Media Set Name	Quarterly media set #%id% %date%
Add Tapes from Media Pool	No
Automatically	
Append Backup Files to Incomplete Tapes	No

Table 96 - Gfs Media Set - Quarterly Media Set Options

Yearly Media Set Options

Override Protection Period	1
Medium	TEK002L8
Media Set Name	Yearly media set #%id% %date%
Add Tapes from Media Pool	Yes
Automatically	
Append Backup Files to Incomplete Tapes	No
Move All Offline Tape into the following Media Vault	Yes
Vault	Pharmax - Veeam Tape Vault

Table 97 - Gfs Media Set - Yearly Media Set Options

Options

Enable Parallel Processing for Tape Jobs using this Media Pool	Yes
Jobs Pointed to this Media Pool can use up to	2 Tape Drives Simultaneously
Enable Parallel Processing of Backup Chains within a Single Tape Job	Yes
Use Encryption	Yes
Encryption Password	Password Global

Table 98 - Media Set - GFS Media Pool 1

1.2.4.2 Oracle - Media Pool

Tape Library

Library Name	QUANTUM Scalar i2000 7000
Library Id	8e943722-c1a5-451a-9fa1-a1e5ebda79a3
Type	Automated
State	Offline
Model	Scalar i2000
Drives	Drive 1, Drive 2, Drive 3
Slots	20

Tape Count	4
Total Space	24 TB
Free Space	24 TB
Add Tape from Free Media Pool Automatically when more Tape are Required	Yes
Description	
Library Mode	Active (Used Always)

Table 99 - Tape Library - Oracle - Media Pool

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Tape Mediums

Name	Is Worm?	Total Space	Free Space	Tape Library
affe28L8	No	12 TB	12 TB	QUANTUM Scalar i2000 7000

Table 100 - Tape Mediums - QUANTUM Scalar i2000 7000

Library Name	ATL P3000 6.24
Library Id	50053ba6-e4b7-49fe-bebf-98fd9d58ff83
Type	Automated
State	Offline
Model	P3000
Drives	Drive 1, Drive 2, Drive 3
Slots	20
Tape Count	4
Total Space	24 TB
Free Space	24 TB
Add Tape from Free Media Pool Automatically when more Tape are Required	Yes
Description	
Library Mode	Active (Used Always)

Table 101 - Tape Library - Oracle - Media Pool

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Tape Mediums

Name	Is Worm?	Total Space	Free Space	Tape Library
vbr02vS	No	320 GB	320 GB	ATL P3000 6.24
vbr07vS	No	320 GB	320 GB	ATL P3000 6.24

Table 102 - Tape Mediums - ATL P3000 6.24

Library Name	QUANTUM Scalar i2000 7000
Library Id	9b7ed595-5922-48f3-bd80-375af07096bb

Type	Automated
State	Offline
Model	Scalar i2000
Drives	Drive 1, Drive 2, Drive 3, Drive 4, Drive 5, Drive 6, Drive 7, Drive 8
Slots	20
Tape Count	4
Total Space	24 TB
Free Space	24 TB
Add Tape from Free Media Pool	Yes
Automatically when more Tape are Required	
Description	
Library Mode	Active (Used Always)

Table 103 - Tape Library - Oracle - Media Pool

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

Media Set

Name	Oracle Media set # %id% %date%
Automatically Create New Media Set	Daily at 12:00:00, on these days [Monday Tuesday Wednesday Thursday Friday]

Table 104 - Media Set - Oracle - Media Pool

Retention

Data Retention Policy	Protect Data for 1 Weeks
Offline Media Tracking	No

Table 105 - Media Set - Oracle - Media Pool

Options

Enable Parallel Processing for Tape Jobs using this Media Pool	Yes
Jobs Pointed to this Media Pool can use up to	2 Tape Drives Simultaneously
Enable Parallel Processing of Backup Chains within a Single Tape Job	Yes
Use Encryption	Yes
Encryption Password	Password Global

Table 106 - Media Set - Oracle - Media Pool

1.2.4.3 Standard Media Pool**Tape Library**

Library Name	QUANTUM Scalar i2000 7000
--------------	---------------------------

Library Id	8e943722-c1a5-451a-9fa1-a1e5ebda79a3
Type	Automated
State	Offline
Model	Scalar i2000
Drives	Drive 1, Drive 2, Drive 3
Slots	20
Tape Count	3
Total Space	35 TB
Free Space	35 TB
Add Tape from Free Media Pool Automatically when more Tape are Required	Yes
Description	
Library Mode	Active (Used Always)

Table 107 - Tape Library - Standard Media Pool

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

Tape Mediums

Name	Is Worm?	Total Space	Free Space	Tape Library
affe25L8	No	12 TB	12 TB	QUANTUM Scalar i2000 7000

Table 108 - Tape Mediums - QUANTUM Scalar i2000 7000

Media Set

Name	Standard Media set # %id% %date%
Automatically Create New Media Set	Create new Media Set for every backup session

Table 109 - Media Set - Standard Media Pool

Retention

Data Retention Policy	Protect Data for 1 Months
Offline Media Tracking	Yes
Move all Offline Tape from this Media Pool into The following Media Vault	DR - Tape Vault

Table 110 - Media Set - Standard Media Pool

Options

Enable Parallel Processing for Tape Jobs using this Media Pool	Yes
Jobs Pointed to this Media Pool can use up to	2 Tape Drives Simultaneously
Enable Parallel Processing of Backup Chains within a Single Tape Job	Yes
Use Encryption	No

Table 111 - Media Set - Standard Media Pool

1.2.4.4 WORM GFS Media Pool 1

Tape Library

Library Name	QUANTUM Scalar i2000 7000
Library Id	8e943722-c1a5-451a-9fa1-a1e5ebda79a3
Type	Automated
State	Offline
Model	Scalar i2000
Drives	Drive 1, Drive 2, Drive 3
Slots	20
Tape Count	0
Total Space	59 TB
Free Space	59 TB
Add Tape from Free Media Pool Automatically when more Tape are Required	Yes
Description	
Library Mode	Active (Used Always)

Table 112 - Tape Library - WORM GFS Media Pool 1

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Tape Mediums

Name	Is Worm?	Total Space	Free Space	Tape Library
WRM237LY	Yes	12 TB	12 TB	QUANTUM Scalar i2000 7000
WRM238LY	Yes	12 TB	12 TB	QUANTUM Scalar i2000 7000
WRM239LY	Yes	12 TB	12 TB	QUANTUM Scalar i2000 7000
WRM240LY	Yes	12 TB	12 TB	QUANTUM Scalar i2000 7000
WRM241LY	Yes	12 TB	12 TB	QUANTUM Scalar i2000 7000

Table 113 - Tape Mediums - QUANTUM Scalar i2000 7000

Gfs Media Set

Daily Media Set Options

Override Protection Period	14
Medium	WRM237LY
Media Set Name	Daily media set #%id% %date%
Add Tapes from Media Pool Automatically	Yes

Append Backup Files to Incomplete Tapes	Yes
---	-----

Table 114 - Gfs Media Set - Daily Media Set Options

Weekly Media Set Options

Override Protection Period	4
Medium	WRM238LY
Media Set Name	Weekly media set #%%id% %date%
Add Tapes from Media Pool Automatically	Yes
Append Backup Files to Incomplete Tapes	No

Table 115 - Gfs Media Set - Weekly Media Set Options

Monthly Media Set Options

Override Protection Period	12
Medium	WRM239LY
Media Set Name	Monthly media set #%%id% %date%
Add Tapes from Media Pool Automatically	Yes
Append Backup Files to Incomplete Tapes	No

Table 116 - Gfs Media Set - Monthly Media Set Options

Quarterly Media Set Options

Override Protection Period	4
Medium	WRM240LY
Media Set Name	Quarterly media set #%%id% %date%
Add Tapes from Media Pool Automatically	Yes
Append Backup Files to Incomplete Tapes	No

Table 117 - Gfs Media Set - Quarterly Media Set Options

Yearly Media Set Options

Override Protection Period	1
Medium	WRM241LY
Media Set Name	Yearly media set #%%id% %date%
Add Tapes from Media Pool Automatically	Yes
Append Backup Files to Incomplete Tapes	No

Table 118 - Gfs Media Set - Yearly Media Set Options

Options

Enable Parallel Processing for Tape Jobs using this Media Pool	Yes
Jobs Pointed to this Media Pool can use up to	2 Tape Drives Simultaneously
Enable Parallel Processing of Backup Chains within a Single Tape Job	Yes
Use Encryption	Yes
Encryption Password	Password Global

Table 119 - Media Set - WORM GFS Media Pool 1

1.2.4.5 WORM Media Pool 1

Tape Library

Library Name	QUANTUM Scalar i2000 7000
Library Id	8e943722-c1a5-451a-9fa1-a1e5ebda79a3
Type	Automated
State	Offline
Model	Scalar i2000
Drives	Drive 1, Drive 2, Drive 3
Slots	20
Tape Count	5
Total Space	59 TB
Free Space	59 TB
Add Tape from Free Media Pool Automatically when more Tape are Required	Yes
Description	
Library Mode	Active (Used Always)

Table 120 - Tape Library - WORM Media Pool 1

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Tape Mediums

Name	Is Worm?	Total Space	Free Space	Tape Library
WRM232LY	Yes	12 TB	12 TB	QUANTUM Scalar i2000 7000
WRM233LY	Yes	12 TB	12 TB	QUANTUM Scalar i2000 7000
WRM234LY	Yes	12 TB	12 TB	QUANTUM Scalar i2000 7000
WRM235LY	Yes	12 TB	12 TB	QUANTUM Scalar i2000 7000
WRM236LY	Yes	12 TB	12 TB	QUANTUM Scalar i2000 7000

Table 121 - Tape Mediums - QUANTUM Scalar i2000 7000

Media Set

Name	WORM media set # %id% %date%
Automatically Create New Media Set	Do not Create, Always continue using current Media Set

Table 122 - Media Set - WORM Media Pool 1

Retention

Data Retention Policy	Never Overwrite Data
Offline Media Tracking	Yes
Move all Offline Tape from this Media Pool into The following Media Vault	DR - Tape Vault

Table 123 - Media Set - WORM Media Pool 1

Options

Enable Parallel Processing for Tape Jobs using this Media Pool	Yes
Jobs Pointed to this Media Pool can use up to	2 Tape Drives Simultaneously
Enable Parallel Processing of Backup Chains within a Single Tape Job	Yes
Use Encryption	Yes
Encryption Password	Password Global

Table 124 - Media Set - WORM Media Pool 1

1.2.5 Tape Vaults

Name	Description	Automatic Protect	Location
DR - Tape Vault	Created by PHARMAX\jocolon at 1/4/2022 11:10 PM.	No	-
Pharmax - Veeam Tape Vault	Pharmax - HQ Tape Vault	Yes	-

Table 125 - Tape Vault - VEEAM-VBR

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

1.2.6 NDMP Servers

Name	Credentials	Port	Gateway
ONTAP-HQ-SAN-IC.pharmax.local	backup_admin1	10000	VEEAM-VBR.pharmax.local

Table 126 - NDMP Servers - VEEAM-VBR

1.3 Inventory

Veeam Backup & Replication As Built Report - v1.0

The following section provides inventory information about the Virtual Infrastructure managed by Veeam Server veeam-vbr.pharmax.local.

Inventory

vCenter Servers	3
ESXi Servers	8
Hyper-V Clusters	1
Hyper-V Servers	3
Protection Groups	6
File Shares	10

Table 127 - Inventory Summary - VEEAM-VBR

1.3.1 Virtual Infrastructure

The following sections detail the configuration about managed virtual servers backed-up by Veeam Server veeam-vbr.pharmax.local.

1.3.1.1 VMware vSphere

The following section details information about VMware Virtual Infrastructure backed-up by Veeam Server veeam-vbr.pharmax.local.

VMware vCenter

Name	Version	Child Host
192.168.5.2	VMware vCenter Server 8.0.1 build-21560480	comp-02a.pharmax.local, comp-01a.pharmax.local, esxsvr-00f.pharmax.local
vcenter-01v.pharmax.local	VMware vCenter Server 8.0.1 build-21560480	comp-02a.pharmax.local, esxsvr-00f.pharmax.local, comp-01a.pharmax.local
vcenter-03v.pharmax.local	VMware vCenter Server 7.0.3 build-20990077	edge-01a.pharmax.local

Table 128 - vCenter Servers - VEEAM-VBR

Esxi Host

Name	Version
comp-01a.pharmax.local	VMware ESXi 7.0.3 build-20328353
comp-01a.pharmax.local	VMware ESXi 7.0.3 build-20328353
comp-02a.pharmax.local	VMware ESXi 7.0.3 build-20328353
comp-02a.pharmax.local	VMware ESXi 7.0.3 build-20328353
disaster-01a.pharmax.local	VMware ESXi 7.0.3 build-20036589
edge-01a.pharmax.local	VMware ESXi 7.0.3 build-20036589
esxsvr-00f.pharmax.local	VMware ESXi 8.0.1 build-21495797
esxsvr-00f.pharmax.local	VMware ESXi 8.0.1 build-21495797

Table 129 - Esxi Hosts - VEEAM-VBR

1.3.1.2 Microsoft Hyper-V

Hyper-V Clusters

Name	Credentials	Child Host
pharmax-cluster.pharmax.local	administrator@pharmax.local	VEEAM-HV-02, VEEAM-HV-01

Table 130 - Hyper-V Clusters - VEEAM-VBR

Hyper-V Host

Name	Version
VEEAM-HV-01	Microsoft Windows Server 2022 Datacenter Evaluation 64-bit (10.0.20348 build:20348)
VEEAM-HV-02	Microsoft Windows Server 2022 Datacenter Evaluation 64-bit (10.0.20348 build:20348)
VEEAM-HV-03.pharmax.local	Microsoft Windows Server 2022 Datacenter Evaluation 64-bit (10.0.20348 build:20348)

Table 131 - Hyper-V Hosts - VEEAM-VBR

1.3.2 Physical Infrastructure

The following sections detail configuration information about managed physical infrastructure.

1.3.2.1 Protection Groups Summary

Name	Type	Container	Schedule	Enabled
Gurabo PC - Backup	Custom	ActiveDirectory	Periodically	Yes
HQ - Manual Packet	Custom	ManuallyDeployed	Daily	Yes
Linux Protection Group	Custom	IndividualComputers	Daily	Yes
Manually Added	ManuallyAdded	IndividualComputers	Daily	Yes
Others	Custom	ManuallyDeployed	Daily	Yes
Server with Netapp LUNS	Custom	ActiveDirectory	Daily	Yes

Table 132 - Protection Groups - VEEAM-VBR

1.3.2.1.1 Protection Group Configuration

Gurabo PC - Backup

Domain	pharmax.local
Backup Objects	<p>Name: VDI-Computers Type: OrganizationUnit Distinguished Name: OU=VDI-Computers,DC=pharmax,DC=local</p> <p>Name: VEEAM WorkStations</p>

	Type: OrganizationUnit Distinguished Name: OU=VEEAM WorkStations,DC=pharmax,DC=local
Exclude VM	No
Exclude Computers	No
Exclude Offline Computers	Yes
Excluded Entity	
Master Credentials	administrator@pharmax.local
Deployment Options	Install Agent: Yes Upgrade Automatically: Yes Install Driver: No Reboot If Required: No
Notification Options	Send Time: 08:00:00 Additional Address: [veeam_admin@pharmax.local] Use Notification Options: No Subject: [%JobResult%] %PGName%: (%FoundCount% new hosts found (%TotalCount% total, %SeenCount% seen))

Table 133 - Protection Group Configuration - Gurabo PC - Backup

Manually Added

Deployment Options	Install Agent: Yes Upgrade Automatically: Yes Install Driver: No Reboot If Required: No
Notification Options	Send Time: 10:00:00 Additional Address: [jcolonf@zenprsolutions.com, rebelinux@gmail.com] Use Notification Options: No Subject: [%JobResult%] %JobName% (%ObjectCount% machines) %Issues%

Table 134 - Protection Group Configuration - Manually Added

Server with Netapp LUNS

Domain	pharmax.local
Backup Objects	Name: NTAPSVR-01v.pharmax.local Type: Computer Distinguished Name: CN=NTAPSVR-01V,OU=Member Servers,DC=pharmax,DC=local
Exclude VM	No
Exclude Computers	No
Exclude Offline Computers	Yes
Excluded Entity	
Master Credentials	administrator@pharmax.local
Deployment Options	Install Agent: Yes Upgrade Automatically: Yes Install Driver: Yes Reboot If Required: Yes

Table 135 - Protection Group Configuration - Server with Netapp LUNS

1.3.3 File Shares

The following table provides a summary about the file shares backed-up by Veeam Server veeam-vbr.pharmax.local.

Path	Type	Backup IO Control	Credentials	Cache Repository
\192.168.5.18\c\$	NAS Filler	Medium	admin	Linux - Hardened Repository
\192.168.5.18\DATA	NAS Filler	Medium	admin	Linux - Hardened Repository
\192.168.5.18\ipc\$	NAS Filler	Medium	admin	Linux - Hardened Repository
\192.168.7.90\data	NAS Filler	Highest	admin	Linux - Hardened Repository
\isilon_nas.pharmax.local\DATA	SMB Share	Low	administrator@pharmax.local	Linux - Hardened Repository
\server-dc-01v\UEMConfig	SMB Share	Medium	administrator@pharmax.local	Linux - Hardened Repository
192.168.5.18:/DATA	NAS Filler	Medium	None	Linux - Hardened Repository
192.168.5.18:/oracle	NFS Share	Low	None	Linux - Hardened Repository
192.168.5.18:/oracle	NAS Filler	Medium	None	Linux - Hardened Repository
server-dc-01v	File Server	Medium	administrator@pharmax.local	Linux - Hardened Repository

Table 136 - File Shares - VEEAM-VBR

1.4 Storage Infrastructure

The following section provides information about the storage infrastructure managed by Veeam Server veeam-vbr.pharmax.local.

Storage Infrastructure Inventory

NetApp Ontap Storage	5
NetApp Ontap Volumes	5
Dell Isilon Storage	1
Dell Isilon Volumes	1

Table 137 - Storage Infrastructure Inventory - VEEAM-VBR

1.4.1 NetApp Ontap Storage

The following section details information about NetApp storage infrastructure.

1.4.1.1 ONTAP-DR-SAN

DNS Name	ONTAP-DR-SAN.pharmax.local
Description	Created by PHARMAX\jocolon at 1/9/2022 7:40 PM.
Storage Type	NaCluster
Used Credential	admin - (ONTAP-HQ-SAN)
Connection Address	ONTAP-DR-SAN-01V.pharmax.local, 10.10.30.17, 10.10.30.16
Connection Port	443\TCP
Installed Licenses	FlexClone, SnapRestore, Iscsi, Nfs, SnapVaultPrimary, SnapVaultSecondary, SnapMirror, Cifs

Table 138 - NetApp Host - ONTAP-DR-SAN

Volumes

Name	Total Space	Used Space	Thin Provision
SAN_DR_root	973 MB	664 KB	No
SRM_EDGE_PLACEHOLDER_01	10 GB	85 MB	Yes
SRM_EDGE_STORAGE_01	50 GB	4 GB	Yes
SRM_LAB_STORAGE_DR_01	50 GB	956 MB	Yes
SRM_PLACEHOLDER_01	10 GB	341 MB	Yes
vol_SRM_HQ_EDGE_01_dest	833 MB	669 MB	Yes
vol_SRM_LAB_STORAGE_01_dest	40 GB	32 GB	Yes
vol_SRM_LAB_STORAGE_02_dest	31 GB	848 MB	Yes
vol_SRM_POL_DEDUP_01_dest	30 GB	26 GB	Yes

Table 139 - NetApp Volumes - ONTAP-DR-SAN

1.4.1.2 ONTAP-HQ-SAN

DNS Name	ONTAP-HQ-SAN.pharmax.local
Description	Created by PHARMAX\jocolon at 12/23/2021 9:12 PM.
Storage Type	NaCluster
Used Credential	admin - (ONTAP-HQ-SAN)
Connection Address	192.168.5.16, 192.168.5.17
Connection Port	443\TCP
Installed Licenses	FlexClone, SnapRestore, Iscsi, Nfs, SnapVaultPrimary, SnapVaultSecondary, SnapMirror, Cifs

Table 140 - NetApp Host - ONTAP-HQ-SAN

Volumes

Name	Total Space	Used Space	Thin Provision
DATA	10 GB	2 GB	No
HYPERVER_QUORUM_STORAGE	15 GB	109 MB	No
HYPERVER_VM_STORAGE	50 GB	123 MB	No
NAS_VEEAM_root	973 MB	4 MB	No
oracle	10 GB	4 MB	No
SAN_HQ_root	973 MB	4 MB	No

Table 141 - NetApp Volumes - ONTAP-HQ-SAN

1.4.1.3 VEEAM-NTAP-CLUSTER

DNS Name	VEEAM-NTAP-CLUSTER.pharmax.local
Description	Created by PHARMAX\administrator at 5/5/2022 12:54 PM.
Storage Type	NaCluster
Used Credential	admin - (admin netapp)
Connection Address	VEEAM-NTAP-CLUSTER, 192.168.5.131, 192.168.5.130
Connection Port	443\TCP
Installed Licenses	FlexClone, SnapRestore, Iscsi, Nfs, SnapVaultPrimary, SnapVaultSecondary, SnapMirror, Cifs

Table 142 - NetApp Host - VEEAM-NTAP-CLUSTER

1.4.1.4 PHARMAX-DR

DNS Name	pharmax-dr.pharmax.local
Description	Created by PHARMAX\administrator at 6/29/2021 7:48 PM.
Storage Type	NaCluster
Used Credential	admin - (admin netapp)
Connection Address	pharmax-dr.pharmax.local, 10.10.33.14, 10.10.33.15, 10.10.33.16
Connection Port	443\TCP
Installed Licenses	FlexClone, SnapRestore, Fcp, Iscsi, Nfs, SnapVaultPrimary, SnapVaultSecondary, SnapMirror, Cifs

Table 143 - NetApp Host - PHARMAX-DR

Volumes

Name	Total Space	Used Space	Thin Provision
DP_Server_Home	15 GB	42 MB	Yes
NAS_DR_root	19 MB	1 MB	No
Oracle_Data_Volumes_dest	5 GB	2 GB	Yes
Oracle_Data_Volumes_dest_clone_36	5 GB	2 GB	Yes
SAN_DR_root	19 MB	1 MB	No
SERVER_DATASTORE_DR	50 GB	288 MB	Yes
SnapLock_COM	10 GB	552 KB	No
SnapLock_ENT	10 GB	552 KB	No
SRM_PlaceHolder_DR	10 GB	31 MB	Yes
vol_NTAPSOL_LUN_1_dest	192 MB	16 MB	Yes
vol_NTAPSOL_LUN_1_dest_clone_807	192 MB	16 MB	Yes
vol_SERVER_DATASTORE_2_dest	122 MB	404 KB	Yes
vol_SERVER_DATASTORE_dest	15 GB	8 GB	Yes
VVOL_REPLICATION_MIRROR	122 MB	364 KB	Yes

Table 144 - NetApp Volumes - PHARMAX-DR

1.4.1.5 PHARMAX-HQ

DNS Name	pharmax-hq.pharmax.local
Description	Created by PHARMAX\administrator at 6/29/2021 12:10 PM.
Storage Type	NaCluster
Used Credential	admin - (admin netapp)
Connection Address	pharmax-hq.pharmax.local, 192.168.7.61, 192.168.7.62, 192.168.7.60
Connection Port	443\TCP
Installed Licenses	FlexClone, SnapRestore, Fcp, Iscsi, Nfs, SnapVaultPrimary, SnapVaultSecondary, SnapMirror, Cifs

Table 145 - NetApp Host - PHARMAX-HQ

Volumes

Name	Total Space	Used Space	Thin Provision
ESX_RDM_TEST	48 GB	89 MB	Yes
HYPERV_CLUSTER_QUORUM	10 GB	5 MB	Yes
HYPERV_LOG_DATASTORE	50 GB	8 GB	Yes
HYPERV_VM_DATASTORE	50 GB	9 GB	Yes
SAN_root	19 MB	996 KB	No
SERVER_DATASTORE	50 GB	5 GB	Yes
SERVER_DATASTORE_DR_dest	300 MB	231 MB	Yes
SQL_SERVER_01_V	80 GB	109 MB	Yes

Table 146 - NetApp Volumes - PHARMAX-HQ

1.4.2 Dell Isilon Storage

The following section details information about Dell storage infrastructure.

1.4.2.1 PHARMAX-ISILON

DNS Name	isilon_nas.pharmax.local
Description	Created by PHARMAX\jocolon at 1/16/2022 12:33 PM.
Used Credential	admin - (Isilon Account)
Connection Address	192.168.7.90
Connection Port	8080\TCP

Table 147 - Isilon Host - PHARMAX-ISILON

Volumes

Name	Total Space	Used Space	Thin Provision
DATA	0 KB	0 KB	No

Table 148 - Isilon Volumes - PHARMAX-ISILON

1.5 Replication

Veeam Backup & Replication As Built Report - v1.0

The following section provides information about the replications managed by Veeam Server veeam-vbr.pharmax.local.

Replication Inventory

Replicas	5
Failover Plans	3

Table 149 - Replication Inventory - VEEAM-VBR

1.5.1 Replicas

The following section details replica information from Veeam Server veeam-vbr.pharmax.local.

VM Name	Linux-VM-Siem
Target Vm Name	Tenant2_Linux-VM-Siem_replica
Original Location	vcenter-03v.pharmax.local\RegionA01-EDGE
Destination Location	vcenter-01v.pharmax.local\RegionHQ-MGMT
Job Name	Replication Job 1
State	Ready
Type	VMware Replication
Restore Points	1
Creation Time	11/15/2022 11:23:46

Table 150 - Replication Job 1 - Linux-VM-Siem

VM Name	Linux-VM-SOAR
Target Vm Name	Tenant2_Linux-VM-SOAR_replica
Original Location	vcenter-03v.pharmax.local\RegionA01-EDGE
Destination Location	vcenter-01v.pharmax.local\RegionHQ-MGMT
Job Name	Replication Job 1
State	Ready
Type	VMware Replication
Restore Points	1
Creation Time	11/15/2022 11:23:46

Table 151 - Replication Job 1 - Linux-VM-SOAR

VM Name	csr-mapserver
Target Vm Name	csr-mapserver_replica
Original Location	vcenter-01v.pharmax.local\RegionHQ-MGMT
Destination Location	vcenter-03v.pharmax.local\edge-01a.pharmax.local
Job Name	Cisco-CSR-Replication
State	Ready
Type	VMware Replication
Restore Points	3
Creation Time	05/08/2022 18:21:32

Table 152 - Cisco-CSR-Replication - csr-mapserver

VM Name	Tiny-VM
Target Vm Name	Tiny-VM_replica

Original Location	pharmax-cluster.pharmax.local\VEEAM-HV-02
Destination Location	VEEAM-HV-03.pharmax.local
Job Name	HVCluster-To-HVStandalone
State	Ready
Type	Hyper-V Replication
Restore Points	2
Creation Time	05/07/2022 13:38:35

Table 153 - HVCluster-To-HVStandalone - Tiny-VM

VM Name	VEEAM-Linux-VM
Target Vm Name	VEEAM-Linux-VM_replica
Original Location	vcenter-01v.pharmax.local\RegionA01-COMP
Destination Location	vcenter-03v.pharmax.local\edge-01a.pharmax.local
Job Name	HQ-to-EDGE
State	Ready
Type	VMware Replication
Restore Points	5
Creation Time	05/05/2022 14:22:24

Table 154 - HQ-to-EDGE - VEEAM-Linux-VM

VM Name	VEEAM-VM
Target Vm Name	VEEAM-VM_replica
Original Location	vcenter-01v.pharmax.local\RegionA01-COMP
Destination Location	vcenter-03v.pharmax.local\edge-01a.pharmax.local
Job Name	HQ-to-EDGE
State	Ready
Type	VMware Replication
Restore Points	1
Creation Time	05/05/2022 14:22:24

Table 155 - HQ-to-EDGE - VEEAM-VM

1.5.2 Failover Plans

The following section details failover plan information from Veeam Server veeam-vbr.pharmax.local.

1.5.2.1 Cisco-CSR-FailoverPlan

Platform	VMWare
Status	Ready
Pre Failover Script Enabled	No
Pre Failover Command	-
Post Failover Script Enabled	No
Post Failover Command	-
VM Count	1
Description	Created by PHARMAX\administrator at 5/6/2022 11:54 AM.

Table 156 - Failover Plan - Cisco-CSR-FailoverPlan

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

Virtual Machines

VM Name	Boot Order	Boot Delay
Unknown	0	60

Table 157 - Virtual Machines - Cisco-CSR-FailoverPlan

1.5.2.2 HQ-To-DR-HV

Platform	HyperV
Status	Ready
Pre Failover Script Enabled	Yes
Pre Failover Command	predbsetup.ps1
Post Failover Script Enabled	Yes
Post Failover Command	postdbsetup.ps1
VM Count	1
Description	Created by PHARMAX\administrator at 5/8/2022 12:00 PM.

Table 158 - Failover Plan - HQ-To-DR-HV

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

Virtual Machines

VM Name	Boot Order	Boot Delay
Unknown	0	60

Table 159 - Virtual Machines - HQ-To-DR-HV

1.5.2.3 HQ-to-EDGE FailOver Plan

Platform	VMWare
Status	Ready
Pre Failover Script Enabled	No
Pre Failover Command	mysql
Post Failover Script Enabled	No
Post Failover Command	-
VM Count	2
Description	Created by PHARMAX\administrator at 5/5/2022 9:43 PM.

Table 160 - Failover Plan - HQ-to-EDGE FailOver Plan

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

Virtual Machines

VM Name	Boot Order	Boot Delay
Unknown	1	60
Unknown	0	60

Table 161 - Virtual Machines - HQ-to-EDGE FailOver Plan

1.6 Cloud Connect

The following section provides information about Cloud Connect components from server veeam-vbr.pharmax.local.

Cloud Connect Infrastructure

Cloud Gateways	3
Gateway Pools	2
Tenants	6
Backup Storage	8
Public IP Addresses	18
Hardware Plans	4

Table 162 - Cloud Connect Inventory - VEEAM-VBR

1.6.1 Service Status

The following section provides information about Cloud Gateways SSL Certificate.

Server Name	VEEAM-VBR
Global Status	Active
Service State	Normal
Service Response Delay	0

Table 163 - Service Status - VEEAM-VBR

1.6.2 Public IP

The following section provides information about Cloud Public IP.

IP Address	Assigned Tenant
66.66.66.66	Tenant3
66.66.66.67	Tenant3
66.66.66.68	Tenant2
66.66.66.69	-
66.66.66.70	-
66.66.66.71	-
66.66.66.72	-
66.66.66.73	-
66.66.66.74	-
66.66.66.75	-
66.66.66.76	-

IP Address	Assigned Tenant
66.66.66.77	-
66.66.66.78	-
66.66.66.79	-
66.66.66.80	-
66.66.66.81	-
66.66.66.82	-
66.66.66.83	-

Table 164 - Public IP - VEEAM-VBR

1.6.3 Cloud Gateways

The following section provides summary information about configured Cloud Gateways.

Name	VEEAM-HVPRX-01V.pharmax.local
DNS/IP	192.168.7.215
Network Mode	Direct
NAT Port	6180
Incoming Port	6180
Enabled	Yes
Cloud Gateway Pool	Cloud gateway pool 2
Description	Created by PHARMAX\administrator at 11/8/2022 9:29 AM.

Table 165 - Cloud Gateways - VEEAM-HVPRX-01V.pharmax.local

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

Name	VEEAM-VBR
DNS/IP	192.168.7.73
Network Mode	Direct
NAT Port	6180
Incoming Port	6180
Enabled	Yes
Cloud Gateway Pool	Cloud gateway pool 1
Description	Created by PHARMAX\administrator at 2/18/2023 1:21 PM.

Table 166 - Cloud Gateways - VEEAM-VBR

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

Name	VEEAM-VBR-02V.pharmax.local
DNS/IP	192.168.7.189
Network Mode	Direct
NAT Port	6180
Incoming Port	6180
Enabled	Yes
Cloud Gateway Pool	-

Description	Created by PHARMAX\administrator at 11/7/2022 9:05 AM.
<i>Table 167 - Cloud Gateways - VEEAM-VBR-02V.pharmax.local</i>	

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

1.6.4 Gateways Pools

The following section provides summary information about configured Cloud Gateways Pools.

Name	Cloud Gateway Servers	Description
Cloud gateway pool 1	VEEAM-VBR	Created by PHARMAX\administrator at 11/7/2022 8:57 AM.
Cloud gateway pool 2	VEEAM-HVPRX-01V.pharmax.local	Created by PHARMAX\administrator at 11/8/2022 9:36 AM.

Table 168 - Gateways Pools - VEEAM-VBR

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

1.6.5 Tenants

The following table provides status information about Cloud Connect Tenants.

Name	Type	Last Active	Last Result
pharmax\veeam_admin	Active Directory		Success
PHARMAX-VEEAM	vCloud Director		Success
Tenant2	Standalone	11/17/2022 10:29 PM	Failed
Tenant3	Standalone		Success
Tenant4	Standalone		Success
Tenant5	Standalone		Success

Table 169 - Tenants Summary - VEEAM-VBR

Health Check:

Best Practice: *Validate if the tenant's resources are being utilized*

1.6.6 Backup Storage

The following section provides information about Veeam Cloud Connect configured Backup Storage.

1.6.6.1 HQ - Backups

Type	Windows
Path	E:\Backups
Total Space	199 GB

Veeam Backup & Replication As Built Report - v1.0

Free Space	198 GB
Used Space %	1
Status	Unavailable
Description	Created by PHARMAX\administrator at 7/16/2022 9:57 PM.

Table 170 - Backup Storage - HQ - Backups

Tenant Utilization

Name	Quota	Used Space	Used Space %	Path
Tenant2	10 GB	0.3008 GB	3	E:\Backups\Tenant2
Tenant4	100 GB	0 GB	0	E:\Backups\Tenant4
Tenant5	10 GB	0 GB	0	E:\Backups\Tenant5

Table 171 - Tenant Utilization - HQ - Backups

1.6.6.2 Linux - Hardened Repository

Type	Linux
Path	/backup_data/backups
Total Space	199 GB
Free Space	187 GB
Used Space %	6
Status	Unavailable
Description	Created by PHARMAX\jocolon at 12/28/2021 1:25 PM.

Table 172 - Backup Storage - Linux - Hardened Repository

Tenant Utilization

Name	Quota	Used Space	Used Space %	Path
PHARMAX-VEEAM	10 GB	0 GB	0	/backup_data/backups/PHARMAX-VEEAM
Tenant2	1024 GB	0.001 GB	0	/backup_data/backups/Tenant2
Tenant4	10 GB	0 GB	0	/backup_data/backups/Tenant4

Table 173 - Tenant Utilization - Linux - Hardened Repository

1.6.6.3 SOBR - Minio

Type	Scale-out
Path	-
Total Space	499 GB
Free Space	344 GB
Used Space %	31
Status	Available
Description	Created by PHARMAX\administrator at 2/27/2021 7:29 PM.

Table 174 - Backup Storage - SOBR - Minio

Tenant Utilization

Name	Quota	Used Space	Used Space %	Path
pharmax\veeam_admin	2 GB	0 GB	0	pharmax_veeam_admin
PHARMAX-VEEAM	10 GB	0 GB	0	PHARMAX-VEEAM

Table 175 - Tenant Utilization - SOBR - Minio

1.6.7 Replica Resources

The following table provides a summary of Replica Resources.

Name	Platform	CPU	Memory	Storage Quota	Network Count	Subscribers Count
Hardware plan 1	VMWare	9.2 Ghz	52.56 GB	20 GB	2	2
Hardware plan 2	VMWare	Unlimited	Unlimited	10240 GB	9	1
Hardware plan 3	HyperV	0.7 Ghz	Unlimited	20 GB	2	1
Hardware plan 4	VMWare	0.9 Ghz	5.27 GB	43 GB	2	0

Table 176 - Replica Resources - VEEAM-VBR

1.6.7.1 Replica Resources Configuration

1.6.7.1.1 Hardware plan 1

Host Hardware Quota

Host or Cluster	RegionHQ-MGMT (Cluster)
Platform	VMWare
CPU	9.2 Ghz
Memory	52.56 GB
Network Count	2
Subscribed Tenant	Tenant2, Tenant3
Description	Created by PHARMAX\administrator at 11/7/2022 9:01 AM.

Table 177 - Host Hardware Quota - Hardware plan 1

Storage Quota

Datastore Name	HDD-MED-PERF
Friendly Name	Storage 1
Platform	VMWare
Storage Quota	10 GB
Storage Policy	VM Encryption Policy

Table 178 - Storage Quota - HDD-MED-PERF

Datastore Name	HDD-VM-ISO-LOW-PERF
Friendly Name	Storage 2
Platform	VMWare

Storage Quota	10 GB
Storage Policy	VM Encryption Policy

Table 179 - Storage Quota - HDD-VM-ISO-LOW-PERF

Network Quota

Specify number of networks with Internet Access	2
Specify number of internal networks	1
Host or Cluster	RegionHQ-MGMT (Cluster)
Platform	VMWare
Virtual Switch	PHARMAX-DVS
VLANs With Internet	1 - 200
VLANs Without Internet	201 - 210

Table 180 - Network Quota - Hardware plan 1

Tenant Utilization

Name	CPU Usage	Memory Usage	Storage Usage
Tenant2	0	0	0 GB (Storage 1) 0 GB (Storage 2)
Tenant3	0	0	0 GB (Storage 2) 0 GB (Storage 1)

Table 181 - Tenant Utilization - Hardware plan 1

1.6.7.1.2 Hardware plan 2

Host Hardware Quota

Host or Cluster	esxsvr-00f.pharmax.local (ESXi)
Platform	VMWare
CPU	Unlimited
Memory	Unlimited
Network Count	9
Subscribed Tenant	Tenant3
Description	Created by PHARMAX\administrator at 11/10/2022 9:09 PM.

Table 182 - Host Hardware Quota - Hardware plan 2

Storage Quota

Datastore Name	SSD-VM-HIGH-CAPACITY-PERF-MK
Friendly Name	Storage 1
Platform	VMWare
Storage Quota	10240 GB
Storage Policy	VM Encryption Policy

Table 183 - Storage Quota - SSD-VM-HIGH-CAPACITY-PERF-MK

Network Quota

Specify number of networks with Internet Access	9
Specify number of internal networks	5
Host or Cluster	esxsvr-00f.pharmax.local (ESXi)
Platform	VMWare
Virtual Switch	vSwitch0
VLANs With Internet	1 - 9
VLANs Without Internet	10 - 20

Table 184 - Network Quota - Hardware plan 2

Tenant Utilization

Name	CPU Usage	Memory Usage	Storage Usage
Tenant3	0	0	0 GB (Storage 1)

Table 185 - Tenant Utilization - Hardware plan 2

1.6.7.1.3 Hardware plan 4

Host Hardware Quota

Host or Cluster	RegionHQ-MGMT (Cluster)
Platform	VMWare
CPU	0.9 Ghz
Memory	5.27 GB
Network Count	2
Subscribed Tenant	None
Description	Created by PHARMAX\administrator at 11/15/2022 3:22 PM.

Table 186 - Host Hardware Quota - Hardware plan 4

Storage Quota

Datastore Name	HDD-VM-MED-PERF-02
Friendly Name	Storage 2
Platform	VMWare
Storage Quota	23 GB
Storage Policy	VM Encryption Policy

Table 187 - Storage Quota - HDD-VM-MED-PERF-02

Datastore Name	HDD-VM-ISO-LOW-PERF
Friendly Name	Storage 1
Platform	VMWare
Storage Quota	20 GB
Storage Policy	VM Encryption Policy

Table 188 - Storage Quota - HDD-VM-ISO-LOW-PERF

Network Quota

Specify number of networks with Internet Access	2
Specify number of internal networks	0
Host or Cluster	RegionHQ-MGMT (Cluster)
Platform	VMWare
Virtual Switch	PHARMAX-DVS
VLANs With Internet	1 - 200
VLANs Without Internet	201 - 210

Table 189 - Network Quota - Hardware plan 4

1.6.7.1.4 Hardware plan 3

Host Hardware Quota

Host or Cluster	VEEAM-HV-03.pharmax.local (HvServer)
Platform	HyperV
CPU	0.7 Ghz
Memory	Unlimited
Network Count	2
Subscribed Tenant	Tenant5
Description	Created by PHARMAX\administrator at 11/13/2022 8:19 PM.

Table 190 - Host Hardware Quota - Hardware plan 3

Storage Quota

Datastore Name	C:\Recovery
Friendly Name	Storage 1
Platform	HyperV
Storage Quota	10 GB
Storage Policy	-

Table 191 - Storage Quota - C:\Recovery

Datastore Name	C:\DATA
Friendly Name	Storage 2
Platform	HyperV
Storage Quota	10 GB
Storage Policy	-

Table 192 - Storage Quota - C:\DATA

Network Quota

Specify number of networks with Internet Access	2
Specify number of internal networks	1

Table 193 - Network Quota - Hardware plan 3

Tenant Utilization

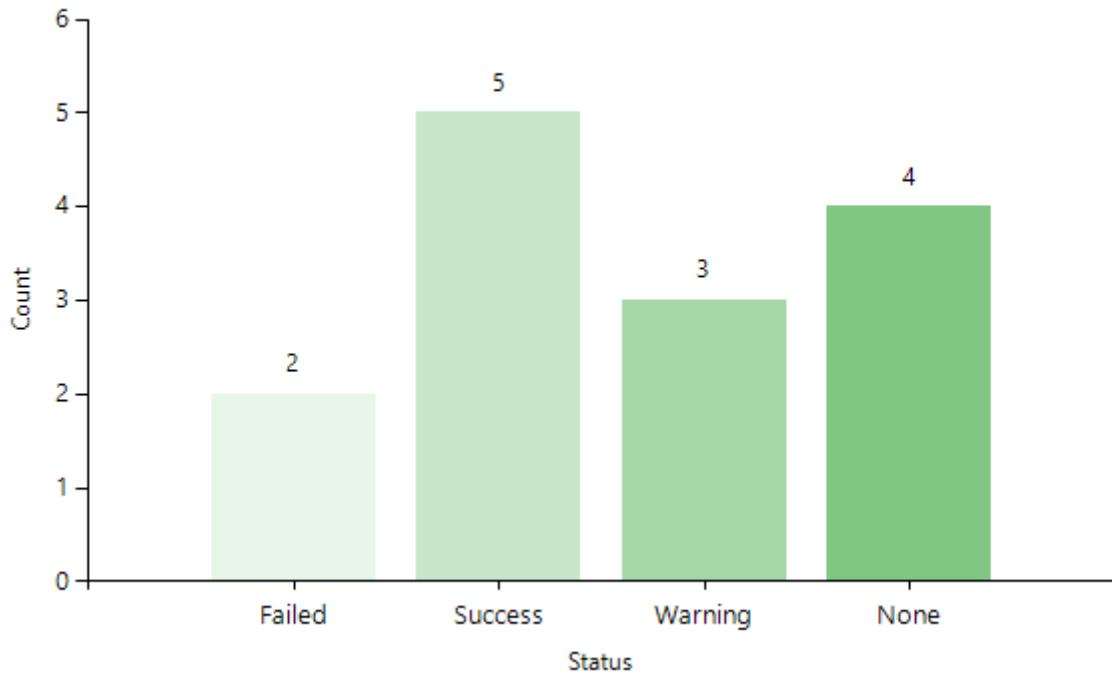
Name	CPU Usage	Memory Usage	Storage Usage
Tenant5	0	0	0 GB (Storage 1) 0 GB (Storage 2)

Table 194 - Tenant Utilization - Hardware plan 3

1.7 Jobs Summary

The following section provides information about the configured jobs in Veeam Server: veeam-vbr.pharmax.local.

Jobs Latest Result



1.7.1 Backup Jobs

The following section list backup jobs created in Veeam Backup & Replication.

Name	Type	Status	Latest Result	Scheduled?
Agent Backup Policy 2	Linux Agent Policy	Enabled	Failed	Yes
Backup - Replicated VM - Cloud Virtualdcs	VMware Backup	Enabled	Success	No
Backup Copy Job 1	Backup Copy	Enabled	Warning	Yes
COMP-CLUSTER-NFS	VMware Backup	Enabled	Failed	Yes
File Backup Job 1	File Backup	Enabled	Failed	Yes
File Backup Job 1 (Copy) 1	Backup Copy	Enabled	None	Yes
Gurabo PC - Backup Job	Windows Agent Policy	Enabled	None	Yes
HPE-StoreOnce-Copy-Job	Backup Copy	Enabled	Success	Yes

Name	Type	Status	Latest Result	Scheduled?
Hyper-V-Backup-Copy	Backup Copy	Disabled	None	Yes
HyperV-Backup-Job	Hyper-V Backup	Disabled	Failed	No
Linux Agent Backup Job	Linux Agent Backup	Enabled	Failed	Yes
PHARMAX-HQ-SVR	VMware Backup	Disabled	None	No
Server - Share Backup	File Backup	Enabled	Failed	Yes
SOBR - TEST	VMware Backup	Enabled	Success	No
VM - Test - AWS	VMware Backup	Enabled	Failed	No
VM Copy Job 1	VM Copy	Enabled	Failed	Yes
WIN HyperV VM Backup	Hyper-V Backup	Disabled	Failed	No

Table 195 - Backup Jobs - VEEAM-VBR

1.7.2 VMware Backup Jobs Configuration

The following section details the configuration of VMware type backup jobs.

Name	Creation Time	VM Count
Backup - Replicated VM - Cloud Virtualdcs	06/27/2022 16:57:50	3
COMP-CLUSTER-NFS	06/02/2021 20:31:27	1
PHARMAX-HQ-SVR	06/29/2021 12:15:23	1
Servers Backup Daily	12/15/2019 19:25:18	0
SOBR - TEST	02/27/2021 21:07:32	6
SQL Server Backup	12/15/2019 20:46:10	0
VEEAM-SP Server Backup	12/15/2019 23:22:23	0
VM - Test - AWS	12/20/2021 12:57:43	1

Table 196 - VMware Backup Summary - VEEAM-VBR

1.7.2.1 Backup - Replicated VM - Cloud Virtualdcs

Common Information

Name	Backup - Replicated VM - Cloud Virtualdcs
Type	VMware Backup
Total Backup Size	5 GB
Target Address	/backup_data/backups
Target File	Backup - Replicated VM - Cloud Virtualdcs
Description	Created by PHARMAX\administrator at 6/27/2022 4:56 PM.
Modified By	PHARMAX\administrator

Table 197 - Common Information - Backup - Replicated VM - Cloud Virtualdcs

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Virtual Machines

Veeam Backup & Replication As Built Report - v1.0

Name	Resource Type	Role	Approx Size	Disk Filter Mode
csr-mapserver	Virtual Machine	Include	1.5 GB	AllDisks
csr-pharmax-dr	Virtual Machine	Include	1.5 GB	AllDisks
csr-pharmax-hq	Virtual Machine	Include	1.5 GB	AllDisks

Table 198 - Virtual Machines - Backup - Replicated VM - Cloud Virtualdcs

Storage

Backup Proxy	veeam-lnx-px.pharmax.local
Backup Repository	Linux - Hardened Repository
Retention Type	Days
Retain Days To Keep	7
Keep First Full Backup	No
Enable Full Backup	No
Integrity Checks	Yes
Storage Encryption	No
Backup Mode	Incremental
Active Full Backup Schedule Kind	Daily
Active Full Backup Days	Saturday
Transform Full To Synthetic	Yes
Transform Increments To Synthetic	No
Transform To Synthetic Days	Saturday

Table 199 - Storage Options - Backup - Replicated VM - Cloud Virtualdcs

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	Yes
SLCG Schedule Type	Monthly
SLCG Schedule Day	Friday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	No
DCFB Schedule Type	Monthly
DCFB Schedule Day	Saturday
DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Remove deleted item data after	14

Table 200 - Advanced Settings (Maintenance) - Backup - Replicated VM - Cloud Virtualdcs

Advanced Settings (Storage)

Inline Data Deduplication	Yes
---------------------------	-----

Exclude Swap Files Block	Yes
Exclude Deleted Files Block	Yes
Compression Level	OPTIMAL (Default)
Storage optimization	Local target
Enabled Backup File Encryption	No
Encryption Key	None

Table 201 - Advanced Settings (Storage) - Backup - Replicated VM - Cloud Virtualdcs

Health Check:

Best Practice: *Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups*

Advanced Settings (vSphere)

Enable VMware Tools Quiescence	No
Use Change Block Tracking	Yes
Enable CBT for all protected VMs	Yes
Reset CBT On each Active Full Backup	Yes

Table 202 - Advanced Settings (vSphere) - Backup - Replicated VM - Cloud Virtualdcs

Advanced Settings (Integration)

Enable Backup from Storage Snapshots	Yes
Limit processed VM count per Storage Snapshot	No
VM count per Storage Snapshot	10
Failover to Standard Backup	No
Failover to Primary Storage Snapshot	No

Table 203 - Advanced Settings (Integration) - Backup - Replicated VM - Cloud Virtualdcs

1.7.2.2 COMP-CLUSTER-NFS

Common Information

Name	COMP-CLUSTER-NFS
Type	VMware Backup
Total Backup Size	0 KB
Target Address	
Target File	COMP-CLUSTER-NFS
Description	Created by PHARMAX\administrator at 6/2/2021 8:15 PM.
Modified By	PHARMAX\administrator

Table 204 - Common Information - COMP-CLUSTER-NFS

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

Virtual Machines

Name	Resource Type	Role	Approx Size	Disk Filter Mode
RocaWeb	Virtual Machine	Include	0 B	AllDisks

Table 205 - Virtual Machines - COMP-CLUSTER-NFS

Storage

Backup Proxy	Automatic
Backup Repository	SOBR - Minio
Retention Type	Days
Retain Days To Keep	7
Keep First Full Backup	No
Enable Full Backup	No
Integrity Checks	Yes
Storage Encryption	No
Backup Mode	Incremental
Active Full Backup Schedule Kind	Daily
Active Full Backup Days	Saturday
Transform Full To Synthetic	Yes
Transform Increments To Synthetic	No
Transform To Synthetic Days	Saturday

Table 206 - Storage Options - COMP-CLUSTER-NFS

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	No
SLCG Schedule Type	Monthly
SLCG Schedule Day	Friday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	No
DCFB Schedule Type	Monthly
DCFB Schedule Day	Saturday
DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Remove deleted item data after	14

Table 207 - Advanced Settings (Maintenance) - COMP-CLUSTER-NFS

Health Check:

Best Practice: It is recommended to use storage-level corruption guard for any backup job with no active full backups scheduled. Synthetic full backups are still 'incremental forever' and may suffer from corruption over time. Storage-level corruption guard was introduced to provide a greater level of confidence in integrity of the backups.

Advanced Settings (Storage)

Inline Data Deduplication	Yes
Exclude Swap Files Block	Yes
Exclude Deleted Files Block	Yes
Compression Level	OPTIMAL (Default)
Storage optimization	Local target
Enabled Backup File Encryption	No
Encryption Key	None

Table 208 - Advanced Settings (Storage) - COMP-CLUSTER-NFS

Health Check:

Best Practice: *Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups*

Advanced Settings (vSphere)

Enable VMware Tools Quiescence	No
Use Change Block Tracking	Yes
Enable CBT for all protected VMs	Yes
Reset CBT On each Active Full Backup	Yes

Table 209 - Advanced Settings (vSphere) - COMP-CLUSTER-NFS

Schedule

Retry Failed item	3
Wait before each retry	10/min
Backup Window	Yes
Schedule type	Daily
Schedule Options	Kind: Everyday, Days: Monday Tuesday Wednesday Thursday Friday Saturday Sunday
Start Time	10:00 PM
Latest Run	06/03/2023 22:00:13

Table 210 - Schedule Options - COMP-CLUSTER-NFS

Backup Window Time Period

Permitted \ Denied

H	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
Sun																								
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								

Table 211 - Backup Window - COMP-CLUSTER-NFS

1.7.2.3 PHARMAX-HQ-SVR

Common Information

Name	PHARMAX-HQ-SVR
Type	VMware Backup
Total Backup Size	31 GB
Target Address	
Target File	PHARMAX-HQ-SVR
Description	Created by PHARMAX\administrator at 6/29/2021 12:12 PM.
Modified By	PHARMAX\administrator

Table 212 - Common Information - PHARMAX-HQ-SVR

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

Virtual Machines

Name	Resource Type	Role	Approx Size	Disk Filter Mode
Linux-Mon-01v	Virtual Machine	Exclude	0 B	SelectedDisks
PHARMAX-HQ-SVR	Resource Pool	Include	30.6 GB	SelectedDisks

Table 213 - Virtual Machines - PHARMAX-HQ-SVR

Storage

Backup Proxy	veeam-lnx-px.pharmax.local
Backup Repository	SOBR - Minio
Retention Type	Cycles
Retain Cycles	8
Keep First Full Backup	No
Enable Full Backup	No
Integrity Checks	Yes
Storage Encryption	Yes
Backup Mode	Incremental
Active Full Backup Schedule Kind	Daily
Active Full Backup Days	Saturday
Transform Full To Synthetic	No
Transform Increments To Synthetic	No
Transform To Synthetic Days	Saturday
Keep certain full backup longer for archival purposes (GFS)	Yes
Keep Weekly full backup for	1 weeks, If multiple backup exist use the one from: Sunday
Keep Monthly full backup	Disabled
Keep Yearly full backup	Disabled

Table 214 - Storage Options - PHARMAX-HQ-SVR

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	Yes
SLCG Schedule Type	Daily
SLCG Schedule Day	Friday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	No
DCFB Schedule Type	Monthly
DCFB Schedule Day	Saturday
DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Remove deleted item data after	15

Table 215 - Advanced Settings (Maintenance) - PHARMAX-HQ-SVR

Advanced Settings (Storage)

Inline Data Deduplication	Yes
Exclude Swap Files Block	Yes
Exclude Deleted Files Block	Yes
Compression Level	OPTIMAL (Default)
Storage optimization	Local target (large blocks)
Enabled Backup File Encryption	Yes
Encryption Key	Password Global

Table 216 - Advanced Settings (Storage) - PHARMAX-HQ-SVR

Advanced Settings (Notification)

Send Snmp Notification	Yes
Send Email Notification	Yes
Email Notification Additional Addresses	rebelinux@gmail.com
Email Notify Time	10:00 PM
Use Custom Email Notification Options	Yes
Use Custom Notification Setting	[%JobResult%] %JobName% (%ObjectCount% machines) %Issues%
Notify On Success	Yes
Notify On Warning	Yes
Notify On Error	Yes
Suppress Notification until Last Retry	Yes
Set Results To Vm Notes	Yes
VM Attribute Note Value	Notes
Append to Existing Attribute	Yes

Table 217 - Advanced Settings (Notification) - PHARMAX-HQ-SVR

Advanced Settings (vSphere)

Enable VMware Tools Quiescence	Yes
Use Change Block Tracking	Yes
Enable CBT for all protected VMs	No
Reset CBT On each Active Full Backup	No

Table 218 - Advanced Settings (vSphere) - PHARMAX-HQ-SVR

Advanced Settings (Integration)

Enable Backup from Storage Snapshots	Yes
Limit processed VM count per Storage Snapshot	No
VM count per Storage Snapshot	10
Failover to Standard Backup	Yes
Failover to Primary Storage Snapshot	Yes

Table 219 - Advanced Settings (Integration) - PHARMAX-HQ-SVR

Advanced Settings (Script)

Run the Following Script Before	Yes
Run Script Before the Job	sql_prefreeze.cmd
Run the Following Script After	Yes
Run Script After the Job	sql_postunfreeze.cmd
Run Script Frequency	Days
Run Script on the Selected Days	Saturday

Table 220 - Advanced Settings (Script) - PHARMAX-HQ-SVR

Secondary Target

Job Name	Type	State	Description
Backup Copy Job 1	Backup Copy	Warning	Created by PHARMAX\administrator at 2/12/2022 9:10 PM.
PHARMAX-HQ-SVR-TAPE	Backup to Tape	Failed	Created by PHARMAX\administrator at 6/29/2021 7:24 PM.

Table 221 - Secondary Destination Jobs - PHARMAX-HQ-SVR

Guest Processing

Name	PHARMAX-HQ-SVR
Enabled	Yes
Resource Type	Resource Pool
Ignore Errors	Yes
Guest Proxy Auto Detect	Yes
Default Credential	administrator@pharmax.local
Object Credential	administrator@vsphere.local

Application Processing	Yes
Transaction Logs	Process Transaction Logs
Use Persistent Guest Agent	Yes
SQL Transaction Logs Processing	Backup logs periodically
SQL Backup Log Every	15 min
SQL Retain Log Backups	Keep Only Last 15 days of log backups
Oracle Account Type	Oracle
Oracle Sysdba Creds	backup_admin1
Oracle Backup Logs Every	5 min
Oracle Archive Logs	Delete Log Over 45 GB
Oracle Retain Log Backups	Keep Only Last 15 days of log backups
File Exclusions	Yes
Include only the following file and folders	c:\data2,c:\Windows
Scripts	Yes
Scripts Mode	Ignore script execution failures
Windows Pre-freeze script	c:\superduper.script.cmd
Windows Post-thaw script	c:\superduper.scriptpost.cmd

Table 222 - Guest Processing Options - PHARMAX-HQ-SVR

Name	Linux-Mon-01v
Enabled	Yes
Resource Type	Virtual Machine
Ignore Errors	No
Guest Proxy Auto Detect	Yes
Default Credential	administrator@pharmax.local
Object Credential	Default Credential
Application Processing	Yes
Transaction Logs	Process Transaction Logs
Use Persistent Guest Agent	No
SQL Transaction Logs Processing	Do not truncate logs
SQL Backup Log Every	15 min
SQL Retain Log Backups	Until the corresponding image-level backup is deleted
Oracle Account Type	Oracle
Oracle Sysdba Creds	Guest OS Credential
Oracle Backup Logs Every	15 min
Oracle Archive Logs	Delete Log Older Than 24 hours
Oracle Retain Log Backups	Until the corresponding image-level backup is deleted
File Exclusions	Yes
Exclude the following file and folders	c:\data,c:\Users
Scripts	Yes
Scripts Mode	Require successfull script execution
Linux Pre-freeze script	/sbin/premysql.sh
Linux Post-thaw script	/sbin/postmysql.sh

Table 223 - Guest Processing Options - Linux-Mon-01v

1.7.2.4 SOBR - TEST

Common Information

Name	SOBR - TEST
Type	VMware Backup
Total Backup Size	78 GB
Target Address	
Target File	SOBR - TEST
Description	
Modified By	PHARMAX\administrator

Table 224 - Common Information - SOBR - TEST

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Virtual Machines

Name	Resource Type	Role	Approx Size	Disk Filter Mode
LINUX-VM	Virtual Machine	Include	8.4 GB	AllDisks
AD-LAB	Virtual Application	Include	69.5 GB	AllDisks

Table 225 - Virtual Machines - SOBR - TEST

Storage

Backup Proxy	Automatic
Backup Repository	SOBR - Minio
Retention Type	Days
Retain Days To Keep	7
Keep First Full Backup	No
Enable Full Backup	Yes
Integrity Checks	Yes
Storage Encryption	No
Backup Mode	Incremental
Active Full Backup Schedule Kind	Daily
Active Full Backup Days	Saturday
Transform Full To Synthetic	Yes
Transform Increments To Synthetic	No
Transform To Synthetic Days	Saturday
Keep certain full backup longer for archival purposes (GFS)	Yes
Keep Weekly full backup	Disabled
Keep Monthly full backup for	2 months, Use weekly full backup from the following week of the month: First
Keep Yearly full backup for	1 years, Use monthly full backup from the following month: July

Table 226 - Storage Options - SOBR - TEST

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	No
SLCG Schedule Type	Monthly
SLCG Schedule Day	Friday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	No
DCFB Schedule Type	Monthly
DCFB Schedule Day	Saturday
DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Remove deleted item data after	14

Table 227 - Advanced Settings (Maintenance) - SOBR - TEST

Health Check:

Best Practice: *It is recommended to use storage-level corruption guard for any backup job with no active full backups scheduled. Synthetic full backups are still 'incremental forever' and may suffer from corruption over time. Storage-level corruption guard was introduced to provide a greater level of confidence in integrity of the backups.*

Advanced Settings (Storage)

Inline Data Deduplication	Yes
Exclude Swap Files Block	Yes
Exclude Deleted Files Block	Yes
Compression Level	OPTIMAL (Default)
Storage optimization	Local target
Enabled Backup File Encryption	No
Encryption Key	None

Table 228 - Advanced Settings (Storage) - SOBR - TEST

Health Check:

Best Practice: *Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups*

Advanced Settings (vSphere)

Enable VMware Tools Quiescence	No
Use Change Block Tracking	Yes
Enable CBT for all protected VMs	Yes
Reset CBT On each Active Full Backup	Yes

Table 229 - Advanced Settings (vSphere) - SOBR - TEST

Guest Processing

Name	LINUX-VM
Enabled	Yes
Resource Type	Virtual Machine
Ignore Errors	No
Guest Proxy Auto Detect	Yes
Default Credential	administrator@vsphere.local
Object Credential	Default Credential
Application Processing	Yes
Transaction Logs	Process Transaction Logs
Use Persistent Guest Agent	No
SQL Transaction Logs Processing	Truncate logs
SQL Backup Log Every	15 min
SQL Retain Log Backups	Until the corresponding image-level backup is deleted

Table 230 - Guest Processing Options - LINUX-VM

Name	AD-LAB
Enabled	Yes
Resource Type	Virtual Application
Ignore Errors	No
Guest Proxy Auto Detect	Yes
Default Credential	administrator@vsphere.local
Object Credential	Default Credential
Application Processing	Yes
Transaction Logs	Process Transaction Logs
Use Persistent Guest Agent	No
SQL Transaction Logs Processing	Truncate logs
SQL Backup Log Every	15 min
SQL Retain Log Backups	Until the corresponding image-level backup is deleted

Table 231 - Guest Processing Options - AD-LAB

1.7.2.5 VM - Test - AWS

Common Information

Name	VM - Test - AWS
Type	VMware Backup
Total Backup Size	26 MB
Target Address	
Target File	VM - Test - AWS
Description	Created by PHARMAX\jocolon at 12/20/2021 12:56 PM.
Modified By	PHARMAX\jocolon

Table 232 - Common Information - VM - Test - AWS

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Virtual Machines

Name	Resource Type	Role	Approx Size	Disk Filter Mode
VEEAM-VM-TINY	Virtual Machine	Include	26 MB	AllDisks

Table 233 - Virtual Machines - VM - Test - AWS

Storage

Backup Proxy	Automatic
Backup Repository	SOBR - AWS S3
Retention Type	Days
Retain Days To Keep	7
Keep First Full Backup	No
Enable Full Backup	No
Integrity Checks	Yes
Storage Encryption	No
Backup Mode	Incremental
Active Full Backup Schedule Kind	Daily
Active Full Backup Days	Saturday
Transform Full To Synthetic	Yes
Transform Increments To Synthetic	No
Transform To Synthetic Days	Saturday

Table 234 - Storage Options - VM - Test - AWS

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	No
SLCG Schedule Type	Monthly
SLCG Schedule Day	Friday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	No
DCFB Schedule Type	Monthly
DCFB Schedule Day	Saturday
DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Remove deleted item data after	14

Table 235 - Advanced Settings (Maintenance) - VM - Test - AWS

Health Check:

Best Practice: It is recommended to use storage-level corruption guard for any backup job with no active full backups scheduled. Synthetic full backups are still 'incremental forever' and may suffer from corruption over time. Storage-level corruption guard was introduced to provide a greater level of confidence in integrity of the backups.

Advanced Settings (Storage)

Inline Data Deduplication	Yes
Exclude Swap Files Block	Yes
Exclude Deleted Files Block	Yes
Compression Level	OPTIMAL (Default)
Storage optimization	Local target
Enabled Backup File Encryption	No
Encryption Key	None

Table 236 - Advanced Settings (Storage) - VM - Test - AWS

Health Check:

Best Practice: *Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups*

Advanced Settings (vSphere)

Enable VMware Tools Quiescence	No
Use Change Block Tracking	Yes
Enable CBT for all protected VMs	Yes
Reset CBT On each Active Full Backup	Yes

Table 237 - Advanced Settings (vSphere) - VM - Test - AWS

Advanced Settings (Integration)

Enable Backup from Storage Snapshots	Yes
Limit processed VM count per Storage Snapshot	No
VM count per Storage Snapshot	10
Failover to Standard Backup	No
Failover to Primary Storage Snapshot	No

Table 238 - Advanced Settings (Integration) - VM - Test - AWS

Secondary Target

Job Name	Type	State	Description
PHARMAX-HQ-SVR-TAPE Standard	Backup to Tape	Warning	Created by PHARMAX\administrator at 2/25/2022 7:14 PM.

Table 239 - Secondary Destination Jobs - VM - Test - AWS

1.7.2.6 VM Copy Job 1

Common Information

Name	VM Copy Job 1
Type	VM Copy
Total Backup Size	2 GB
Target Address	F:\VM

Target File	
Description	Created by PHARMAX\jocolon at 2/6/2022 3:28 PM.
Modified By	PHARMAX\administrator

Table 240 - Common Information - VM Copy Job 1

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Virtual Machines

Name	Resource Type	Role	Approx Size	Disk Filter Mode
csr-mapserver	Virtual Machine	Include	1.5 GB	AllDisks

Table 241 - Virtual Machines - VM Copy Job 1

Storage

Backup Proxy	Automatic
Backup Repository	F:\VM
Retention Type	Days
Retain Days To Keep	7
Keep First Full Backup	No
Enable Full Backup	No
Integrity Checks	Yes
Storage Encryption	No
Backup Mode	Incremental
Active Full Backup Schedule Kind	Daily
Active Full Backup Days	Saturday
Transform Full To Synthetic	Yes
Transform Increments To Synthetic	No
Transform To Synthetic Days	Saturday

Table 242 - Storage Options - VM Copy Job 1

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	No
SLCG Schedule Type	Monthly
SLCG Schedule Day	Friday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	No
DCFB Schedule Type	Monthly
DCFB Schedule Day	Saturday

DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Remove deleted item data after	14

Table 243 - Advanced Settings (Maintenance) - VM Copy Job 1

Health Check:

Best Practice: *It is recommended to use storage-level corruption guard for any backup job with no active full backups scheduled. Synthetic full backups are still 'incremental forever' and may suffer from corruption over time. Storage-level corruption guard was introduced to provide a greater level of confidence in integrity of the backups.*

Advanced Settings (Storage)

Inline Data Deduplication	Yes
Exclude Swap Files Block	Yes
Exclude Deleted Files Block	Yes
Compression Level	OPTIMAL (Default)
Storage optimization	Local target
Enabled Backup File Encryption	No
Encryption Key	None

Table 244 - Advanced Settings (Storage) - VM Copy Job 1

Health Check:

Best Practice: *Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups*

Advanced Settings (vSphere)

Enable VMware Tools Quiescence	No
Use Change Block Tracking	Yes
Enable CBT for all protected VMs	Yes
Reset CBT On each Active Full Backup	Yes

Table 245 - Advanced Settings (vSphere) - VM Copy Job 1

Advanced Settings (Integration)

Enable Backup from Storage Snapshots	Yes
Limit processed VM count per Storage Snapshot	No
VM count per Storage Snapshot	10
Failover to Standard Backup	No
Failover to Primary Storage Snapshot	No

Table 246 - Advanced Settings (Integration) - VM Copy Job 1

Guest Processing

Name	csr-mapserver
Enabled	Yes

Resource Type	Virtual Machine
Ignore Errors	Yes
Guest Proxy Auto Detect	Yes
Default Credential	administrator@pharmax.local
Object Credential	Default Credential
Application Processing	Yes
Transaction Logs	Process Transaction Logs
Use Persistent Guest Agent	Yes
SQL Transaction Logs Processing	Truncate logs
SQL Backup Log Every	15 min
SQL Retain Log Backups	Until the corresponding image-level backup is deleted
Oracle Account Type	Oracle
Oracle Sysdba Creds	Guest OS Credential
Oracle Archive Logs	Delete Log Over 10 GB
Oracle Retain Log Backups	Until the corresponding image-level backup is deleted
Scripts	Yes
Scripts Mode	Require successfull script execution
Windows Pre-freeze script	preprueba.exe
Windows Post-thaw script	postprueba.exe

Table 247 - Guest Processing Options - csr-mapserver

Schedule

Retry Failed item	3
Wait before each retry	10/min
Backup Window	Yes
Shedule type	Minutes
Shedule Options	Full Period: 1, Hourly Offset: 0, Unit: Minutes
Start Time	10:00 PM
Latest Run	06/03/2023 23:11:00

Table 248 - Schedule Options - VM Copy Job 1

Backup Window Time Period

	H	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
Sun																									
Mon																									
Tue																									
Wed																									
Thu																									
Fri																									
Sat																									

Table 249 - Backup Window - VM Copy Job 1

1.7.3 Hyper-V Backup Jobs Configuration

Veeam Backup & Replication As Built Report - v1.0

The following section details the configuration of the Hyper-V type backup jobs.

Name	Creation Time	VM Count
HyperV-Backup-Job	03/06/2023 12:07:58	1
HyperV-Backup-Job	06/30/2021 22:06:10	2
HYPERV-VEEAM-Win2016	12/15/2019 22:03:08	0
WIN HyperV VM Backup	12/26/2021 20:38:56	1

Table 250 - Hyper-V Backup Summary - VEEAM-VBR

1.7.3.1 HyperV-Backup-Job

Common Information

Name	HyperV-Backup-Job
Type	Hyper-V Backup
Total Backup Size	4 MB
Target Address	/backup_data/backups
Target File	HyperV-Backup-Job
Description	Created by PHARMAX\administrator at 6/30/2021 10:02 PM.
Modified By	PHARMAX\administrator

Table 251 - Common Information - HyperV-Backup-Job

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

Virtual Machines

Name	Resource Type	Role	Approx Size	Disk Filter Mode
LNX-WEB-01	VM	Include	4 MB	AllDisks

Table 252 - Virtual Machines - HyperV-Backup-Job

Storage

Backup Proxy	VEEAM-HVPRX-01V.pharmax.local
Backup Repository	Linux - Hardened Repository
Retention Type	Days
Retain Days To Keep	7
Keep First Full Backup	No
Enable Full Backup	No
Integrity Checks	Yes
Storage Encryption	Yes
Backup Mode	Incremental
Active Full Backup Schedule Kind	Daily
Active Full Backup Days	Saturday
Transform Full To Synthetic	Yes
Transform Increments To Synthetic	No
Transform To Synthetic Days	Saturday

Keep certain full backup longer for archival purposes (GFS)	Yes
Keep Weekly full backup for	1 weeks, If multiple backup exist use the one from: Sunday
Keep Monthly full backup	Disabled
Keep Yearly full backup	Disabled

Table 253 - Storage Options - HyperV-Backup-Job

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	Yes
SLCG Schedule Type	Monthly
SLCG Schedule Day	Friday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	No
DCFB Schedule Type	Monthly
DCFB Schedule Day	Saturday
DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Remove deleted item data after	14

Table 254 - Advanced Settings (Maintenance) - HyperV-Backup-Job

Advanced Settings (Storage)

Inline Data Deduplication	No
Exclude Swap Files Block	Yes
Exclude Deleted Files Block	Yes
Compression Level	OPTIMAL (Default)
Storage optimization	Local target (large blocks)
Enabled Backup File Encryption	Yes
Encryption Key	Password Global

Table 255 - Advanced Settings (Storage) - HyperV-Backup-Job

Advanced Settings (Notification)

Send Snmp Notification	Yes
Send Email Notification	No
Email Notification Additional Addresses	
Email Notify Time	10:00 PM
Use Custom Email Notification Options	No

Use Custom Notification Setting	[%JobResult%] %JobName% (%ObjectCount% machines) %Issues%
Notify On Success	Yes
Notify On Warning	Yes
Notify On Error	Yes
Suppress Notification until Last Retry	Yes
Set Results To Vm Notes	-
VM Attribute Note Value	
Append to Existing Attribute	-

Table 256 - Advanced Settings (Notification) - HyperV-Backup-Job

Advanced Settings (Hyper-V)

Enable Hyper-V Guest Quiescence	Yes
Crash Consistent Backup	Yes
Use Change Block Tracking	Yes
Volume Snapshot	Yes

Table 257 - Advanced Settings (Hyper-V) - HyperV-Backup-Job

Advanced Settings (Integration)

Enable Backup from Storage Snapshots	Yes
Limit processed VM count per Storage Snapshot	No
VM count per Storage Snapshot	10
Failover to Standard Backup	No
Failover to Primary Storage Snapshot	No

Table 258 - Advanced Settings (Integration) - HyperV-Backup-Job

Advanced Settings (Script)

Run the Following Script Before	Yes
Run Script Before the Job	pretest.bat
Run the Following Script After	Yes
Run Script After the Job	posttest.bat
Run Script Frequency	Cycles
Run Script Every Backup Session	1

Table 259 - Advanced Settings (Script) - HyperV-Backup-Job

Secondary Target

Job Name	Type	State	Description
Hyper-V-Backup-Copy	Backup Copy	None	Created by PHARMAX\administrator at 2/20/2022 10:38 AM.

Table 260 - Secondary Destination Jobs - HyperV-Backup-Job

Guest Processing

Name	LNX-WEB-01
Enabled	Yes
Resource Type	
Ignore Errors	No
Guest Proxy Auto Detect	Yes
Default Credential	administrator@pharmax.local
Object Credential	Default Credential
Application Processing	Yes
Transaction Logs	Process Transaction Logs
Use Persistent Guest Agent	No
SQL Transaction Logs Processing	Truncate logs
SQL Backup Log Every	15 min
SQL Retain Log Backups	Until the corresponding image-level backup is deleted

Table 261 - Guest Processing Options - LNX-WEB-01

1.7.3.2 WIN HyperV VM Backup

Common Information

Name	WIN HyperV VM Backup
Type	Hyper-V Backup
Total Backup Size	4 MB
Target Address	
Target File	WIN HyperV VM Backup
Description	Created by PHARMAX\jocolon at 12/26/2021 8:36 PM.
Modified By	PHARMAX\administrator

Table 262 - Common Information - WIN HyperV VM Backup

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Virtual Machines

Name	Resource Type	Role	Approx Size	Disk Filter Mode
pharmax-cluster.pharmax.local	Directory	Include	4 MB	AllDisks
Server-EX-01v	VM	Exclude	0 B	SelectedDisks

Table 263 - Virtual Machines - WIN HyperV VM Backup

Storage

Backup Proxy	VEEAM-HVPRX-01V.pharmax.local
Backup Repository	SOBR - Minio
Retention Type	Days
Retain Days To Keep	7
Keep First Full Backup	No
Enable Full Backup	Yes

Integrity Checks	Yes
Storage Encryption	Yes
Backup Mode	Incremental
Active Full Backup Schedule Kind	Daily
Active Full Backup Days	Saturday
Transform Full To Synthetic	Yes
Transform Increments To Synthetic	No
Transform To Synthetic Days	Saturday
Keep certain full backup longer for archival purposes (GFS)	Yes
Keep Weekly full backup for	1 weeks, If multiple backup exist use the one from: Sunday
Keep Monthly full backup	Disabled
Keep Yearly full backup	Disabled

Table 264 - Storage Options - WIN HyperV VM Backup

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	Yes
SLCG Schedule Type	Monthly
SLCG Schedule Day	Friday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	No
DCFB Schedule Type	Monthly
DCFB Schedule Day	Saturday
DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Remove deleted item data after	14

Table 265 - Advanced Settings (Maintenance) - WIN HyperV VM Backup

Advanced Settings (Storage)

Inline Data Deduplication	Yes
Exclude Swap Files Block	Yes
Exclude Deleted Files Block	Yes
Compression Level	OPTIMAL (Default)
Storage optimization	Local target
Enabled Backup File Encryption	Yes
Encryption Key	Password Global

Table 266 - Advanced Settings (Storage) - WIN HyperV VM Backup

Advanced Settings (Notification)

Send Snmp Notification	Yes
Send Email Notification	Yes
Email Notification Additional Addresses	rebelinux@gmail.com
Email Notify Time	10:00 PM
Use Custom Email Notification Options	No
Use Custom Notification Setting	[%JobResult%] %JobName% (%ObjectCount% machines) %Issues%
Notify On Success	Yes
Notify On Warning	Yes
Notify On Error	Yes
Suppress Notification until Last Retry	Yes
Set Results To Vm Notes	-
VM Attribute Note Value	-
Append to Existing Attribute	-

Table 267 - Advanced Settings (Notification) - WIN HyperV VM Backup

Advanced Settings (Hyper-V)

Enable Hyper-V Guest Quiescence	Yes
Crash Consistent Backup	Yes
Use Change Block Tracking	Yes
Volume Snapshot	Yes

Table 268 - Advanced Settings (Hyper-V) - WIN HyperV VM Backup

Advanced Settings (Integration)

Enable Backup from Storage Snapshots	Yes
Limit processed VM count per Storage Snapshot	No
VM count per Storage Snapshot	10
Failover to Standard Backup	No
Failover to Primary Storage Snapshot	No

Table 269 - Advanced Settings (Integration) - WIN HyperV VM Backup

Advanced Settings (Script)

Run the Following Script Before	Yes
Run Script Before the Job	pre-exchange.bat
Run the Following Script After	Yes
Run Script After the Job	post-exchange.bat
Run Script Frequency	Days
Run Script on the Selected Days	Saturday

Table 270 - Advanced Settings (Script) - WIN HyperV VM Backup

Secondary Target

Job Name	Type	State	Description
PHARMAX-HQ-SVR-TAPE	Backup to Tape	Failed	Created by PHARMAX\administrator at 6/29/2021 7:24 PM.

Table 271 - Secondary Destination Jobs - WIN HyperV VM Backup

Guest Processing

Name	pharmax-cluster.pharmax.local
Enabled	Yes
Resource Type	
Ignore Errors	No
Guest Proxy Auto Detect	Yes
Default Credential	admin
Object Credential	Default Credential
Application Processing	Yes
Transaction Logs	Process Transaction Logs
Use Persistent Guest Agent	No
SQL Transaction Logs Processing	Truncate logs
SQL Backup Log Every	15 min
SQL Retain Log Backups	Until the corresponding image-level backup is deleted

Table 272 - Guest Processing Options - pharmax-cluster.pharmax.local

Name	Server-EX-01v
Enabled	Yes
Resource Type	
Ignore Errors	Yes
Guest Proxy Auto Detect	Yes
Default Credential	admin
Object Credential	Default Credential
Application Processing	Yes
Transaction Logs	Process Transaction Logs
Use Persistent Guest Agent	Yes
SQL Transaction Logs Processing	Truncate logs
SQL Backup Log Every	15 min
SQL Retain Log Backups	Until the corresponding image-level backup is deleted
Oracle Account Type	Oracle
Oracle Sysdba Creds	Guest OS Credential
Oracle Backup Logs Every	15 min
Oracle Archive Logs	Disabled
Oracle Retain Log Backups	Until the corresponding image-level backup is deleted

Table 273 - Guest Processing Options - Server-EX-01v

1.7.4 Replication Jobs

The following section provide a summary about replication jobs

Name	Type	Status	Latest Result	Last Run
Cisco-CSR-Replication	VMware Replication	Enabled	Success	
Cloud-Replication-Virtualdcs	VMware Replication	Enabled	Warning	12/22/2043 19:11:12
HQ-to-EDGE	VMware Replication	Enabled	Failed	
HVCluster-To-HVStandalone	Hyper-V Replication	Enabled	Warning	

Table 274 - Replication Jobs - VEEAM-VBR

1.7.5 VMware Replication Jobs Configuration

The following section details the configuration about VMware type backup jobs.

Name	Creation Time	VM Count
Cisco-CSR-Replication	Sunday, May 8, 2022	1
Cloud-Replication-Virtualdcs	Monday, June 27, 2022	
HQ-to-EDGE	Thursday, May 5, 2022	2

Table 275 - VMware Replication Summary - VEEAM-VBR

1.7.5.1 Cisco-CSR-Replication

Common Information

Name	Cisco-CSR-Replication
Type	VMware Replication
Total Backup Size	2 GB
Target Address	
Target File	replica
Description	Created by PHARMAX\administrator at 5/8/2022 6:19 PM.
Modified By	PHARMAX\administrator

Table 276 - Common Information - Cisco-CSR-Replication

Destination

Host or Cluster	Unknown
Resources Pool	PHARMAX-EDGE-SRV
VM Folder	PHARMAX-EDGE
Datastore	VMWARE_EDGE_DATASTORE

Table 277 - Destination - Cisco-CSR-Replication

Network

Source Network	Target Network
DVS-Esxi-VM-Network (PHARMAX-DVS)	DVS-VM-NETWORK-EDGE (VMWARE-LAB-DVS)

Table 278 - Network Mappings - Cisco-CSR-Replication

Re-IP Rules

Source IP Address	Source Subnet Mask	Target IP Address	Target Subnet Mask	Target Default Gateway	Target DNS Addresses
192.168.7.*	255.255.255.0	192.168.8.*	255.255.255.0	192.168.8.254	

Table 279 - Re-IP Rules - Cisco-CSR-Replication

Virtual Machines

Name	Resource Type	Role	Approx Size	Disk Filter Mode
csr-mapserver	Virtual Machine	Include	1.5 GB	AllDisks

Table 280 - Virtual Machines - Cisco-CSR-Replication

Job Settings

Repository for replica metadata	Linux - Hardened Repository
Replica Name Suffix	_replica
Restore Point To Keep	7

Table 281 - Options - Cisco-CSR-Replication

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	No
SLCG Schedule Type	Monthly
SLCG Schedule Day	Friday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	No
DCFB Schedule Type	Monthly
DCFB Schedule Day	Saturday
DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Remove deleted item data after	14

Table 282 - Advanced Settings (Maintenance) - Cisco-CSR-Replication

Health Check:

Best Practice: It is recommended to use storage-level corruption guard for any backup job with no active full backups scheduled. Synthetic full backups are still 'incremental forever' and may suffer from corruption over time. Storage-level corruption guard was introduced to provide a greater level of confidence in integrity of the backups.

Advanced Settings (Traffic)

Inline Data Deduplication	Yes
Exclude Swap Files Block	Yes

Exclude Deleted Files Block	Yes
Compression Level	OPTIMAL (Default)
Storage optimization	LAN target
Enabled Backup File Encryption	No
Encryption Key	None

Table 283 - Advanced Settings (Traffic) - Cisco-CSR-Replication

Health Check:

Best Practice: *Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups*

Advanced Settings (vSphere)

Enable VMware Tools Quiescence	No
Use Change Block Tracking	Yes
Enable CBT for all protected VMs	Yes
Reset CBT On each Active Full Backup	Yes

Table 284 - Advanced Settings (vSphere) - Cisco-CSR-Replication

Advanced Settings (Integration)

Enable Backup from Storage Snapshots	Yes
Limit processed VM count per Storage Snapshot	No
VM count per Storage Snapshot	10
Failover to Standard Backup	No
Failover to Primary Storage Snapshot	No

Table 285 - Advanced Settings (Integration) - Cisco-CSR-Replication

Data Transfer

Source Proxy	Automatic
Target Proxy	Automatic
Use Wan accelerator	No

Table 286 - Data Transfer - Cisco-CSR-Replication

1.7.5.2 Cloud-Replication-Virtualdcs

Common Information

Name	Cloud-Replication-Virtualdcs
Type	VMware Replication
Total Backup Size	2 GB
Target Address	
Target File	replica
Description	Created by PHARMAX\administrator at 5/8/2022 6:19 PM.
Modified By	PHARMAX\administrator

Table 287 - Common Information - Cloud-Replication-Virtualdcs

Destination

Host or Cluster	vcenter-03v.phamax.local vcenter-01v.phamax.local vcenter-03v.phamax.local vcenter-01v.phamax.local
Resources Pool	
VM Folder	
Datastore	VCC-ZenPRSolutions-Replication Storage

Table 288 - Destination - Cloud-Replication-Virtualdcs

Network

Source Network	Target Network
DVS-ESXi-MANAGEMENT (PHARMAX-DVS)	VCCR-ZenPRSolutions-Hardware Plan network 1 (internet)

Table 289 - Network Mappings - Cloud-Replication-Virtualdcs

Virtual Machines

Name	Resource Type	Role	Approx Size	Disk Filter Mode
csr-phamax-hq	Virtual Machine	Include	1.5 GB	AllDisks

Table 290 - Virtual Machines - Cloud-Replication-Virtualdcs

Job Settings

Repository for replica metadata	Linux - Hardened Repository
Replica Name Suffix	_replica
Restore Point To Keep	7

Table 291 - Options - Cloud-Replication-Virtualdcs

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	No
SLCG Schedule Type	Monthly
SLCG Schedule Day	Friday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	No
DCFB Schedule Type	Monthly
DCFB Schedule Day	Saturday
DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December

Remove deleted item data after	14
--------------------------------	----

Table 292 - Advanced Settings (Maintenance) - Cloud-Replication-Virtualdcs

Health Check:

Best Practice: It is recommended to use storage-level corruption guard for any backup job with no active full backups scheduled. Synthetic full backups are still 'incremental forever' and may suffer from corruption over time. Storage-level corruption guard was introduced to provide a greater level of confidence in integrity of the backups.

Advanced Settings (Traffic)

Inline Data Deduplication	Yes
Exclude Swap Files Block	Yes
Exclude Deleted Files Block	Yes
Compression Level	OPTIMAL (Default)
Storage optimization	LAN target
Enabled Backup File Encryption	No
Encryption Key	None

Table 293 - Advanced Settings (Traffic) - Cloud-Replication-Virtualdcs

Health Check:

Best Practice: Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups

Advanced Settings (vSphere)

Enable VMware Tools Quiescence	No
Use Change Block Tracking	Yes
Enable CBT for all protected VMs	Yes
Reset CBT On each Active Full Backup	Yes

Table 294 - Advanced Settings (vSphere) - Cloud-Replication-Virtualdcs

Advanced Settings (Integration)

Enable Backup from Storage Snapshots	Yes
Limit processed VM count per Storage Snapshot	No
VM count per Storage Snapshot	10
Failover to Standard Backup	No
Failover to Primary Storage Snapshot	No

Table 295 - Advanced Settings (Integration) - Cloud-Replication-Virtualdcs

Data Transfer

Source Proxy	Automatic
Target Proxy	Automatic
Use Wan accelerator	Yes
Source Wan accelerator	VEEAM-VBR-02V.pharmax.local
Target Wan accelerator	

Table 296 - Data Transfer - Cloud-Replication-Virtualdcs

Seeding

Seed from Backup Repository	Disabled
Map Replica to Existing VM	No

Table 297 - Seeding - Cloud-Replication-Virtualdcs

1.7.5.3 HQ-to-EDGE

Common Information

Name	HQ-to-EDGE
Type	VMware Replication
Total Backup Size	2 GB
Target Address	
Target File	replica
Description	Created by PHARMAX\administrator at 5/8/2022 6:19 PM.
Modified By	PHARMAX\administrator

Table 298 - Common Information - HQ-to-EDGE

Destination

Host or Cluster	Unknown
Resources Pool	PHARMAX-EDGE-SRV
VM Folder	PHARMAX-EDGE
Datastore	VMDatasotre

Table 299 - Destination - HQ-to-EDGE

Network

Source Network	Target Network
DVS-CLIENT-LISP-40 (VMWARE-LAB-DVS)	DVS-VM-NETWORK-EDGE (VMWARE-LAB-DVS)
DVS-VM-NETWORK (VMWARE-LAB-DVS)	DVS-VM-NETWORK-EDGE (VMWARE-LAB-DVS)

Table 300 - Network Mappings - HQ-to-EDGE

Re-IP Rules

Source IP Address	Source Subnet Mask	Target IP Address	Target Subnet Mask	Target Default Gateway	Target DNS Addresses
192.168.7.*	255.255.255.0	192.168.8.*	255.255.255.0	192.168.8.254	
192.168.7.9	255.255.255.0	192.168.8.8	255.255.255.0	192.168.8.25	192.168.5.1

Table 301 - Re-IP Rules - HQ-to-EDGE

Virtual Machines

Name	Resource Type	Role	Approx Size	Disk Filter Mode
PHARMAX-HQ-SVR	Resource Pool	Include	0 B	AllDisks

Table 302 - Virtual Machines - HQ-to-EDGE

Job Settings

Repository for replica metadata	Linux - Hardened Repository
Replica Name Suffix	_replica
Restore Point To Keep	7

Table 303 - Options - HQ-to-EDGE

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	No
SLCG Schedule Type	Monthly
SLCG Schedule Day	Friday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	No
DCFB Schedule Type	Monthly
DCFB Schedule Day	Saturday
DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Remove deleted item data after	14

Table 304 - Advanced Settings (Maintenance) - HQ-to-EDGE

Health Check:

Best Practice: It is recommended to use storage-level corruption guard for any backup job with no active full backups scheduled. Synthetic full backups are still 'incremental forever' and may suffer from corruption over time. Storage-level corruption guard was introduced to provide a greater level of confidence in integrity of the backups.

Advanced Settings (Traffic)

Inline Data Deduplication	Yes
Exclude Swap Files Block	Yes
Exclude Deleted Files Block	Yes
Compression Level	OPTIMAL (Default)
Storage optimization	LAN target
Enabled Backup File Encryption	No
Encryption Key	None

Table 305 - Advanced Settings (Traffic) - HQ-to-EDGE

Health Check:

Best Practice: Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups

Advanced Settings (Notification)

Send Snmp Notification	Yes
Send Email Notification	Yes
Email Notification Additional Addresses	rebelinux@gmail.com
Email Notify Time	10:00 PM
Use Custom Email Notification Options	No
Use Custom Notification Setting	[%JobResult%] %JobName% (%ObjectCount% machines) %Issues%
Notify On Success	Yes
Notify On Warning	Yes
Notify On Error	Yes
Suppress Notification until Last Retry	Yes
Set Results To Vm Notes	No
VM Attribute Note Value	Notes
Append to Existing Attribute	Yes

Table 306 - Advanced Settings (Notification) - HQ-to-EDGE

Advanced Settings (vSphere)

Enable VMware Tools Quiescence	Yes
Use Change Block Tracking	Yes
Enable CBT for all protected VMs	Yes
Reset CBT On each Active Full Backup	Yes

Table 307 - Advanced Settings (vSphere) - HQ-to-EDGE

Advanced Settings (Integration)

Enable Backup from Storage Snapshots	Yes
Limit processed VM count per Storage Snapshot	No
VM count per Storage Snapshot	10
Failover to Standard Backup	No
Failover to Primary Storage Snapshot	No

Table 308 - Advanced Settings (Integration) - HQ-to-EDGE

Advanced Settings (Script)

Run the Following Script Before	Yes
Run Script Before the Job	presqlDb.cmd
Run the Following Script After	Yes
Run Script After the Job	postsqlDb.cmd
Run Script Frequency	Cycles
Run Script Every Backup Session	1

Table 309 - Advanced Settings (Script) - HQ-to-EDGE

Data Transfer

Source Proxy	VMware Backup Proxy
--------------	---------------------

Veeam Backup & Replication As Built Report - v1.0

Target Proxy	Automatic
Use Wan accelerator	Yes
Source Wan accelerator	VEEAM-VBR-02V.pharmax.local
Target Wan accelerator	VEEAM-WAN-01V.pharmax.local

Table 310 - Data Transfer - HQ-to-EDGE

Seeding

Seed from Backup Repository	Linux - Hardened Repository
Map Replica to Existing VM	Yes

Table 311 - Seeding - HQ-to-EDGE

Guest Processing

Name	PHARMAX-HQ-SVR
Enabled	Yes
Resource Type	Resource Pool
Ignore Errors	No
Guest Proxy Auto Detect	Yes
Default Credential	administrator@pharmax.local
Object Credential	Default Credential
Application Processing	Yes
Transaction Logs	Perform Copy Only
Use Persistent Guest Agent	No

Table 312 - Guest Processing Options - PHARMAX-HQ-SVR

Schedule

Retry Failed item	3
Wait before each retry	10/min
Backup Window	Yes
Schedule type	Monthly
Schedule Options	Day Of Month: 1, Day Number In Month: Fourth, Day Of Week: Saturday
Start Time	10:00 PM
Latest Run	10/22/2022 22:00:14

Table 313 - Schedule Options - HQ-to-EDGE

Backup Window Time Period

Permitted \ Denied		12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
H																									
Sun																									
Mon																									
Tue																									
Wed																									
Thu																									
Fri																									

H	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
Sat																								

Table 314 - Backup Window - HQ-to-EDGE

1.7.6 Hyper-V Replication Jobs Configuration

The following section details the configuration about Hyper-V replication jobs.

Name	Creation Time	VM Count
HVCluster-To-HVStandalone		1

Table 315 - Hyper-V Replication Summary - VEEAM-VBR

1.7.6.1 HVCluster-To-HVStandalone

Common Information

Name	HVCluster-To-HVStandalone
Type	Hyper-V Replication
Total Backup Size	4 MB
Target Address	C:\Hyper-V VM
Target File	replica
Description	Created by PHARMAX\administrator at 5/7/2022 1:30 PM.
Modified By	PHARMAX\administrator

Table 316 - Common Information - HVCluster-To-HVStandalone

Destination

Host or Cluster	Hosts and VMs
Path	c:\replicas

Table 317 - Destination - HVCluster-To-HVStandalone

Network

Source Network	Target Network
vmxnet3 Ethernet Adapter - Virtual Switch	vmxnet3 Ethernet Adapter - Virtual Switch

Table 318 - Network Mappings - HVCluster-To-HVStandalone

Re-IP Rules

Source IP Address	Source Subnet Mask	Target P Address	Target Subnet Mask	Target Default Gateway	Target DNS Addresses
192.168.7.*	255.255.255.0	192.168.8.*	255.255.255.0	192.168.8.254	192.168.5.1

Table 319 - Re-IP Rules - HVCluster-To-HVStandalone

Virtual Machines

Name	Resource Type	Role	Location	Disk Filter Mode
Tiny-VM	Vm	Include	pharmax-cluster.pharmax.local\Tiny-VM	AllDisks

Table 320 - Virtual Machines - HVCluster-To-HVStandalone

Job Settings

Repository for replica metadata	Linux - Hardened Repository
Replica Name Suffix	_replica
Restore Point To Keep	7

Table 321 - Options - HVCluster-To-HVStandalone

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	No
SLCG Schedule Type	Monthly
SLCG Schedule Day	Friday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	No
DCFB Schedule Type	Monthly
DCFB Schedule Day	Saturday
DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December
Remove deleted item data after	14

Table 322 - Advanced Settings (Maintenance) - HVCluster-To-HVStandalone

Health Check:

Best Practice: It is recommended to use storage-level corruption guard for any backup job with no active full backups scheduled. Synthetic full backups are still 'incremental forever' and may suffer from corruption over time. Storage-level corruption guard was introduced to provide a greater level of confidence in integrity of the backups.

Advanced Settings (Traffic)

Inline Data Deduplication	Yes
Exclude Swap Files Block	Yes
Exclude Deleted Files Block	Yes
Compression Level	OPTIMAL (Default)
Storage optimization	LAN target
Enabled Backup File Encryption	No
Encryption Key	None

Table 323 - Advanced Settings (Traffic) - HVCluster-To-HVStandalone

Health Check:

Best Practice: Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups

Advanced Settings (Hyper-V)

Enable Hyper-V Guest Quiescence	Yes
Crash Consistent Backup	Yes
Use Change Block Tracking	Yes
Volume Snapshot	Yes

Table 324 - Advanced Settings (Hyper-V) - HVCluster-To-HVStandalone

Advanced Settings (Integration)

Enable Backup from Storage Snapshots	Yes
Limit processed VM count per Storage Snapshot	No
VM count per Storage Snapshot	10
Failover to Standard Backup	No
Failover to Primary Storage Snapshot	No

Table 325 - Advanced Settings (Integration) - HVCluster-To-HVStandalone

Advanced Settings (Script)

Run the Following Script Before	Yes
Run Script Before the Job	presql.cmd
Run the Following Script After	Yes
Run Script After the Job	postsq1.cmd
Run Script Frequency	Cycles
Run Script Every Backup Session	1

Table 326 - Advanced Settings (Script) - HVCluster-To-HVStandalone

Data Transfer

Source Proxy	VEEAM-HVPRX-01V.pharmax.local
Target Proxy	VEEAM-HVPRX-01V.pharmax.local
Use Wan accelerator	Yes
Source Wan accelerator	VEEAM-VBR
Target Wan accelerator	VEEAM-WAN-01V.pharmax.local

Table 327 - Data Transfer - HVCluster-To-HVStandalone

Seeding

Seed from Backup Repository	Linux - Hardened Repository
Map Replica to Existing VM	Yes

Table 328 - Seeding - HVCluster-To-HVStandalone

Guest Processing

Name	Tiny-VM
Enabled	Yes
Resource Type	
Ignore Errors	No
Guest Proxy Auto Detect	Yes
Default Credential	administrator@pharmax.local
Object Credential	administrator@vsphere.local
Application Processing	Yes
Transaction Logs	Perform Copy Only
Use Persistent Guest Agent	No
File Exclusions	Yes
Exclude the following file and folders	*.mp3
Scripts	Yes
Scripts Mode	Require successfull script execution
Windows Pre-freeze script	presql.cmd
Windows Post-thaw script	postsq1.cmd

Table 329 - Guest Processing Options - Tiny-VM

1.7.7 Tape Backup Jobs

The following section list tape backup jobs created in Veeam Backup & Replication.

Name	Type	Latest Status	Target Repository
File to Tape Job - Data Share	File To Tape	Warning	Standard Media Pool [Oracle - Media Pool]
File to Tape Job - Server Share	File To Tape	Failed	Standard Media Pool [WORM Media Pool 1]
PHARMAX-HQ-SVR-TAPE	Backup To Tape	Success	WORM GFS Media Pool 1
PHARMAX-HQ-SVR-TAPE Standard	Backup To Tape	Success	Standard Media Pool [WORM Media Pool 1]

Table 330 - Backup Jobs - VEEAM-VBR

1.7.8 Backup To Tape Job Configuration

The following section details the configuration about the backup to tape jobs .

1.7.8.1 PHARMAX-HQ-SVR-TAPE

Backups Information

Name	PHARMAX-HQ-SVR-TAPE
Type	BackupToTape
Total Backup Size	186 GB
Next Run	Disabled
Description	Created by PHARMAX\administrator at 6/29/2021 7:24 PM.

Table 331 - Common Information - PHARMAX-HQ-SVR-TAPE

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Backups Objects

Name	Type	Size	Repository
Gurabo PC - Backup Job	Backup Job	0 KB	SOBR - Minio
Linux Agent Backup Job	Backup Job	0 KB	Linux - Hardened Repository
PHARMAX-HQ-SVR	Backup Job	31 GB	SOBR - Minio
Server With Netapp LUNS - Backup	Backup Job	0 KB	SOBR - Minio
SOBR - Minio	Repository	156 GB	SOBR - Minio
WIN HyperV VM Backup	Backup Job	4 MB	SOBR - Minio

Table 332 - Backups Objects - PHARMAX-HQ-SVR-TAPE

Media Pool

Name	WORM GFS Media Pool 1
Pool Type	Gfs
Tape Count	5
Free Space	59 TB
Encryption Enabled	Yes
Encryption Key	Password Global
Parallel Processing	2 drives; Multiple Backup Chains: Yes
Is WORM	Yes
Daily	14 days; Use any available media; append; do not export
Weekly	4 days; Use any available media; do not append; do not export
Monthly	12 days; Use any available media; do not append; do not export
Quarterly	4 days; Use any available media; do not append; do not export
Yearly	1 days; Use any available media; do not append; do not export

Table 333 - Media Pool - PHARMAX-HQ-SVR-TAPE

Options

Eject Tape Media Upon Job Completion	Yes
Export the following MediaSet Upon Job Completion	Yes
Limit the number of drives this job can use	Enabled: Yes; Tape Drives Limit: 3

Table 334 - Options - PHARMAX-HQ-SVR-TAPE

Advanced Settings (Notifications)

Send Email Notification	Yes
Email Notification Additional Recipients	veeam_admin@pharmax.local

Use Custom Notification Settings	Yes
Subject	[%JobResult%] %JobName% (%TapeCount% Tapes) %Issues%
Notify On Success	Yes
Notify On Warning	Yes
Notify On Error	Yes
Notify On Last Retry Only	Yes
Notify When Waiting For Tape	Yes

Table 335 - Advanced Settings (Notifications) - PHARMAX-HQ-SVR-TAPE

Advanced Settings (Advanced)

Process the most recent Restore Point instead of waiting	Yes
Use Hardware Compression when available	Yes
Run the following script before job	c:\pretapebackup.bat
Run the following script after job	c:\posttapebackup.bat
Run Script Every Backup Session	Every 1 backup session

Table 336 - Advanced Settings (Advanced) - PHARMAX-HQ-SVR-TAPE

Schedule

Prevent this job from being interrupted by source backup job	No
Perform GFS scan daily at	0:00:00
Daily backup	Everyday
Weekly backup	Wednesday 00:00:00
Monthly backup	Fourth Wednesday of the month
Quarterly backup	1 day of the Last month of the quarter
Yearly backup	1 day of May

Table 337 - Schedule - PHARMAX-HQ-SVR-TAPE

1.7.8.2 PHARMAX-HQ-SVR-TAPE Standard

Backups Information

Name	PHARMAX-HQ-SVR-TAPE Standard
Type	BackupToTape
Total Backup Size	13 GB
Next Run	
Description	Created by PHARMAX\administrator at 2/25/2022 7:14 PM.

Table 338 - Common Information - PHARMAX-HQ-SVR-TAPE Standard

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Backups Objects

Name	Type	Size	Repository
Agent Backup Job 3	Backup Job	0 KB	SOBR - Minio
Agent Backup Policy 2	Backup Job	0 KB	SOBR - Minio
Linux - Hardened Repository	Repository	13 GB	Linux - Hardened Repository
Server With Netapp LUNS - Backup	Backup Job	0 KB	SOBR - Minio
VM - Test - AWS	Backup Job	26 MB	SOBR - AWS S3

Table 339 - Backups Objects - PHARMAX-HQ-SVR-TAPE Standard

Media Pool

Name	Standard Media Pool
Pool Type	Custom
Tape Count	3
Free Space	35 TB
Encryption Enabled	No
Encryption Key	Disabled
Parallel Processing	2 drives; Multiple Backup Chains: Yes
Is WORM	No
Retention	Protect data for 1 Months
Export to Vault	Yes
Vault	DR - Tape Vault
Media Set Name	Standard Media set # %id% %date%
Automatically create new media set	Create new media set for every backup session
Full Backup Schedule	Weekly on selected days: Monday, Tuesday, Wednesday, Thursday, Friday

Table 340 - Media Pool - PHARMAX-HQ-SVR-TAPE Standard

Incremental Backup

Media Pool	WORM Media Pool 1
Pool Type	Custom
Tape Count	5
Free Space	59 TB
Encryption Enabled	Yes
Encryption Key	Password Global
Parallel Processing	2 drives; Multiple Backup Chains: Yes
Is WORM	Yes
Retention	Never Overwrite Data
Export to Vault	Yes
Vault	DR - Tape Vault
Media Set Name	WORM media set # %id% %date%
Automatically create new media set	Do not create, always continue using current media set

Table 341 - Incremental Backup - PHARMAX-HQ-SVR-TAPE Standard

Options

Eject Tape Media Upon Job Completion	Yes
--------------------------------------	-----

Export the following MediaSet Upon Job Completion	Yes
Limit the number of drives this job can use	Enabled: Yes; Tape Drives Limit: 2

Table 342 - Options - PHARMAX-HQ-SVR-TAPE Standard

Advanced Settings (Notifications)

Send Email Notification	Yes
Email Notification Additional Recipients	veeam_admin@pharmax.local
Use Global Notification Settings	No

Table 343 - Advanced Settings (Notifications) - PHARMAX-HQ-SVR-TAPE Standard

Advanced Settings (Advanced)

Process the most recent Restore Point instead of waiting	Yes
Use Hardware Compression when available	Yes
Pre Job Script Enabled	No
Post Job Script Enabled	No

Table 344 - Advanced Settings (Advanced) - PHARMAX-HQ-SVR-TAPE Standard

Schedule

Prevent this job from being interrupted by source backup job	Yes
Run Automatically	After Job: PHARMAX-HQ-SVR
Wait for Backup Job	03:00:00 hours

Table 345 - Schedule - PHARMAX-HQ-SVR-TAPE Standard

1.7.9 File To Tape Job Configuration

The following section details the configuration about file to tape jobs.

1.7.9.1 File to Tape Job - Data Share

Backups Information

Name	File to Tape Job - Data Share
Type	FileToTape
Next Run	06/05/2023 18:00:00
Description	Created by PHARMAX\jocolon at 1/8/2022 1:02 PM.

Table 346 - Common Information - File to Tape Job - Data Share

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Files and Folders

Name	Type	Selection Type	Path	Include Filter	Exclude Filter
192.168.5.18:/oracle	NfsShare	Directory	nfs3://192.168.5.18:/oracle	*.*	*.odt
ONTAP-HQ-SAN-IC.pharmax.local	NDMP	Directory	/NAS-VEEAM/DATA	-	-

Table 347 - Files and Folders - File to Tape Job - Data Share

Full Backup

Name	Standard Media Pool
Pool Type	Custom
Tape Count	3
Capacity	35 TB
Remaining	35 TB
Is WORM	No
Schedule Enabled	Yes
Daily at this Time	18:00:00 - Monday, Tuesday, Wednesday, Thursday, Friday

Table 348 - Full Backup - File to Tape Job - Data Share

Incremental Backup

Name	Oracle - Media Pool
Pool Type	Custom
Tape Count	4
Capacity	24 TB
Remaining	24 TB
Is WORM	No
Schedule Enabled	Yes
Monthly at this Time	At 00:00:00, Monthly on the: Fourth Saturday of Every Month

Table 349 - Incremental Backup - File to Tape Job - Data Share

Options

Use Microsoft volume shadow copy (VSS)	Yes
Eject Tape Media Upon Job Completion	Yes
Export the following MediaSet Upon Job Completion	Yes

Table 350 - Options - File to Tape Job - Data Share

Advanced Settings (Notifications)

Send Email Notification	Yes
Email Notification Additional Recipients	admin@superdc.com,admin@netapp.com
Use Custom Notification Settings	Yes

Subject	[%JobResult%] %JobName% (%TapeCount% Tapes) %Issues%
Notify On Success	Yes
Notify On Warning	Yes
Notify On Error	Yes
Notify On Last Retry Only	Yes
Notify When Waiting For Tape	Yes

Table 351 - Advanced Settings (Notifications) - File to Tape Job - Data Share

Advanced Settings (Advanced)

Use Hardware Compression when available	Yes
Run the following script before job	c:\pretest.exe
Run the following script after job	c:\posttest.exe
Run Script Every Backup Session	Every 4 backup session

Table 352 - Advanced Settings (Advanced) - File to Tape Job - Data Share

1.7.9.2 File to Tape Job - Server Share

Backups Information

Name	File to Tape Job - Server Share
Type	FileToTape
Next Run	06/07/2023 22:00:00
Description	Created by PHARMAX\administrator at 2/26/2022 6:01 PM.

Table 353 - Common Information - File to Tape Job - Server Share

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Files and Folders

Name	Type	Selection Type	Path	Include Filter	Exclude Filter
\server-dc-01v\UEMConfig	CifsShare	Directory	\server-dc-01v\UEMConfig	*.*	-
server-dc-01v	Windows	Host	server-dc-01v	*.*	-
veeam-lnx-px.pharmax.local	Linux	Directory	/home	*.*	-

Table 354 - Files and Folders - File to Tape Job - Server Share

Full Backup

Name	Standard Media Pool
Pool Type	Custom
Tape Count	3
Capacity	35 TB
Remaining	35 TB

Veeam Backup & Replication As Built Report - v1.0

Is WORM	No
Schedule Enabled	Yes
Daily at this Time	18:00:00 - Saturday

Table 355 - Full Backup - File to Tape Job - Server Share

Incremental Backup

Name	WORM Media Pool 1
Pool Type	Custom
Tape Count	5
Capacity	59 TB
Remaining	59 TB
Is WORM	Yes
Schedule Enabled	Yes
Monthly at this Time	At 00:00:00, Monthly on the: First Wednesday of January, February, March, April, May, June, July, August, September, October

Table 356 - Incremental Backup - File to Tape Job - Server Share

Options

Use Microsoft volume shadow copy (VSS)	Yes
Eject Tape Media Upon Job Completion	Yes
Export the following MediaSet Upon Job Completion	Yes

Table 357 - Options - File to Tape Job - Server Share

Advanced Settings (Notifications)

Send Email Notification	Yes
Email Notification Additional Recipients	admin@veeam.com
Use Custom Notification Settings	Yes
Subject	[%JobResult%] %JobName% (%TapeCount% Tapes) %Issues%
Notify On Success	Yes
Notify On Warning	Yes
Notify On Error	Yes
Notify On Last Retry Only	Yes
Notify When Waiting For Tape	Yes

Table 358 - Advanced Settings (Notifications) - File to Tape Job - Server Share

Advanced Settings (Advanced)

Use Hardware Compression when available	Yes
Pre Job Script Enabled	No
Post Job Script Enabled	No

Table 359 - Advanced Settings (Advanced) - File to Tape Job - Server Share

1.7.10 SureBackup Jobs

The following section list surebackup jobs created in Veeam Backup & Replication.

Name	Status	Schedule	Latest Result	Virtual Lab
SureBackup Job 3	Enabled	Enabled Not Scheduled	None	PHARMAX-VLAB
Pharmax-Lab Test Oracle Upgrade	Enabled	Scheduled	None	PHARMAX-VLAB
Hyper-V-Backup-LNX	Enabled	Scheduled	Failed	PHARMAX-VLAB-HYPER-V

Table 360 - SureBackup Jobs - VEEAM-VBR

1.7.11 SureBackup Job Configuration

The following section provide detailed jobs configuration about Surebackup.

1.7.11.1 Hyper-V-Backup-LNX

Common Information

Name	Hyper-V-Backup-LNX
Last Run	03/06/2023 12:22:31
Next Run	06/04/2023 22:00:00
Description	Created by PHARMAX\administrator at 3/6/2023 10:10 AM.

Table 361 - Common Information - Hyper-V-Backup-LNX

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Virtual Lab

Name	PHARMAX-VLAB-HYPER-V
Description	Created by PHARMAX\administrator at 3/6/2023 10:07 AM.
Physical Host	VEEAM-HV-03.pharmax.local
Physical Host Version	Microsoft Windows Server 2022 Datacenter Evaluation 64-bit (10.0.20348 build:20348)
Destination	C:\VeeamVirtualLabs\PHARMAX-VLAB-HYPER-V

Table 362 - Virtual Lab - Hyper-V-Backup-LNX

Application Group

Name	HV - APPGroup
Virtual Machines	LNX-WEB-01
Keep Application Group Running	No
Description	Created by PHARMAX\jocolon at 12/25/2021 9:53 PM.

Table 363 - Application Group - Hyper-V-Backup-LNX

Settings

Backup file integrity scan	No
Skip validation for application group VM	Yes
Malware Scan	No
Scan the entire image	No
Skip application group machine from malware scan	Yes
Send SNMP trap	Yes
Send Email notification	Yes
Email recipients	rebelinux@gmail.com

Table 364 - Settings - Hyper-V-Backup-LNX

Schedule

Wait for backup jobs	180 minutes
Run Automatically	Daily at this time: 22:00:00, Days: Everyday, Day Of Week: Sunday Monday Tuesday Wednesday Thursday Friday Saturday

Table 365 - Schedule - Hyper-V-Backup-LNX

1.7.11.2 Pharmax-Lab Test Oracle Upgrade

Common Information

Name	Pharmax-Lab Test Oracle Upgrade
Last Run	02/16/2023 22:00:07
Next Run	06/04/2023 22:00:00
Description	Created by PHARMAX\jocolon at 12/25/2021 6:07 PM.

Table 366 - Common Information - Pharmax-Lab Test Oracle Upgrade

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Virtual Lab

Name	PHARMAX-VLAB
Description	Created by PHARMAX\jocolon at 12/25/2021 6:02 PM.
Physical Host	esxsvr-00f.pharmax.local
Physical Host Version	VMware ESXi 8.0.1 build-21495797
Datastore	SSD-VM-HIGH-CAPACITY-PERF-KN

Table 367 - Virtual Lab - Pharmax-Lab Test Oracle Upgrade

Application Group

Name	PHARMAX-AG
Virtual Machines	smallserver-01v, LINUX-VM
Keep Application Group Running	Yes

Description	Created by PHARMAX\administrator at 6/30/2021 6:35 PM.
-------------	--

Table 368 - Application Group - Pharmax-Lab Test Oracle Upgrade

Linked Jobs

Name	Roles	Description
PHARMAX-HQ-SVR	WebServer	Created by PHARMAX\administrator at 6/29/2021 12:12 PM.
COMP-CLUSTER-NFS	DNSServer	Created by PHARMAX\administrator at 6/2/2021 8:15 PM.

Table 369 - Linked Jobs - Pharmax-Lab Test Oracle Upgrade

Verification Options

Job Name	PHARMAX-HQ-SVR
Amount of memory to Allocate to VM	100 percent
Maximum allowed boot time	600 sec
Application Initialization Timeout	120 sec
VM heartbeat is present	Yes
VM respond to ping on any interface	Yes
VM Test Script	SQLServer
Credentials	Isilon Account

Table 370 - Verification Options - Pharmax-Lab Test Oracle Upgrade

Job Name	COMP-CLUSTER-NFS
Amount of memory to Allocate to VM	100 percent
Maximum allowed boot time	600 sec
Application Initialization Timeout	120 sec
VM heartbeat is present	Yes
VM respond to ping on any interface	Yes
VM Test Script	DNSServer,MailServer
Credentials	administrator@pharmax.local

Table 371 - Verification Options - Pharmax-Lab Test Oracle Upgrade

Settings

Backup file integrity scan	Yes
Skip validation for application group VM	Yes
Malware Scan	Yes
Scan the entire image	Yes
Skip application group machine from malware scan	Yes
Send SNMP trap	No
Send Email notification	Yes
Email recipients	admin@veem.com, admin@netapp.com

Table 372 - Settings - Pharmax-Lab Test Oracle Upgrade

Schedule

Wait for backup jobs	180 minutes
Run Automatically	Monthly at this time: 22:00:00, This Day: 4, Months: January February March April May June July August September October

Table 373 - Schedule - Pharmax-Lab Test Oracle Upgrade

1.7.11.3 SureBackup Job 3

Common Information

Name	SureBackup Job 3
Last Run	03/06/2023 20:07:17
Next Run	01/01/0001 00:00:00
Description	Created by PHARMAX\jocolon at 2/6/2022 3:30 PM.

Table 374 - Common Information - SureBackup Job 3

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

Virtual Lab

Name	PHARMAX-VLAB
Description	Created by PHARMAX\jocolon at 12/25/2021 6:02 PM.
Physical Host	esxsvr-00f.pharmax.local
Physical Host Version	VMware ESXi 8.0.1 build-21495797
Datastore	SSD-VM-HIGH-CAPACITY-PERF-KN

Table 375 - Virtual Lab - SureBackup Job 3

Application Group

Name	PHARMAX-AG
Virtual Machines	smallserver-01v, LINUX-VM
Keep Application Group Running	No
Description	Created by PHARMAX\administrator at 6/30/2021 6:35 PM.

Table 376 - Application Group - SureBackup Job 3

Linked Jobs

Name	Roles	Description
COMP-CLUSTER-NFS	SQLServer	Created by PHARMAX\administrator at 6/2/2021 8:15 PM.

Table 377 - Linked Jobs - SureBackup Job 3

Verification Options

Job Name	COMP-CLUSTER-NFS
Amount of memory to Allocate to VM	100 percent
Maximum allowed boot time	1800 sec

Application Initialization Timeout	120 sec
VM heartbeat is present	Yes
VM respond to ping on any interface	Yes
VM Test Script	SQLServer
Credentials	None

Table 378 - Verification Options - SureBackup Job 3

Settings

Backup file integrity scan	No
Skip validation for application group VM	Yes
Malware Scan	No
Scan the entire image	No
Skip application group machine from malware scan	Yes
Send SNMP trap	No
Send Email notification	Yes
Email recipients	

Table 379 - Settings - SureBackup Job 3

1.7.12 Agent Backup Jobs

The following section list agent backup jobs created in Veeam Backup & Replication.

Name	Type	OS Platform	Backup Object
Agent Backup Job 3	FailoverCluster	Windows	Server with Netapp LUNS
Agent Backup Policy 2	Server	Linux	Linux Protection Group
Gurabo PC - Backup Job	Workstation	Windows	Gurabo PC - Backup HQ - Manual Packet
Linux Agent Backup Job	Server	Linux	Linux Protection Group
Server With Netapp LUNS - Backup	Server	Windows	Server with Netapp LUNS server-dc-01v.pharmax.local

Table 380 - Agent Backup Jobs - VEEAM-VBR

1.7.13 Agent Backup Jobs Configuration

The following section details agent backup jobs configuration created in Veeam Backup & Replication.

1.7.13.1 Agent Backup Job 3

Job Mode

Name	Agent Backup Job 3
Id	68ab65f1-235a-42b4-a1ae-7582951e0a99
Type	FailoverCluster
Mode	Managed by Backup Server
Description	Created by PHARMAX\administrator at 5/2/2022 10:18 PM.
Priority	Normal Priority

Table 381 - Job Mode - Agent Backup Job 3

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Protected Computers

Name	Type	Enabled	Container
Server with Netapp LUNS	Custom	Yes	Active Directory

Table 382 - Protected Computers - Agent Backup Job 3

Backup Mode

Backup Mode	Entire Computer
Include external USB drives	No

Table 383 - Backup Mode - Agent Backup Job 3

Storage

Backup Repository	SOBR - Minio
Repository Type	ExtendableRepository
Retention Policy	Restore Days
Retain Days To Keep	7
Configure Secondary Destination for this Job	Yes
Keep certain full backup longer for archival purposes (GFS)	Yes
Keep Weekly full backup for	1 weeks, If multiple backup exist use the one from: Sunday
Keep Monthly full backup for	1 months, Use weekly full backup from the following week of the month: First
Keep Yearly full backup for	1 years, Use monthly full backup from the following month: January

Table 384 - Destination - Agent Backup Job 3

Secondary Target

Job Name	Type	State	Description
PHARMAX-HQ-SVR-TAPE Standard	Backup to Tape	Warning	Created by PHARMAX\administrator at 2/25/2022 7:14 PM.

Table 385 - Secondary Destination Job - Agent Backup Job 3

Advanced Settings (Backup)

Syntetic Full Backup	Yes
Create Syntetic on Days	Saturday
Active Full Backup	No

Table 386 - Advanced Settings (Backup) - Agent Backup Job 3

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	No
Defragment and Compact Full Backup (DCFB)	No

Table 387 - Advanced Settings (Maintenance) - Agent Backup Job 3

Health Check:

Best Practice: It is recommended to use storage-level corruption guard for any backup job with no active full backups scheduled. Synthetic full backups are still 'incremental forever' and may suffer from corruption over time. Storage-level corruption guard was introduced to provide a greater level of confidence in integrity of the backups.

Advanced Settings (Storage)

Compression Level	Optimal
Storage optimization	LocalTarget
Enabled Backup File Encryption	No
Encryption Key	None

Table 388 - Advanced Settings (Storage) - Agent Backup Job 3

Health Check:

Best Practice: Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups

Advanced Settings (Notification)

Send Snmp Notification	Yes
Send Email Notification	No

Table 389 - Advanced Settings (Notification) - Agent Backup Job 3

Advanced Settings (Integration)

Enable Backup from Storage Snapshots	Yes
Failover to On-Host Backup agent	Yes
Off-host Backup Proxy Automatic Selection	Yes

Table 390 - Advanced Settings (Integration) - Agent Backup Job 3

Advanced Settings (Script)

Run the Following Script Before	No
Run the Following Script After	No

Table 391 - Advanced Settings (Script) - Agent Backup Job 3

Guest Processing

Enabled Application Process Processing	Yes
Enabled Guest File System Indexing	No

Table 392 - Guest Processing Options - Agent Backup Job 3

Schedule

Retry Failed item	3
Wait before each retry	10/min
Backup Window	Yes
Schedule type	After Job
Schedule Options	COMP-CLUSTER-NFS

Table 393 - Schedule Options - Agent Backup Job 3

1.7.13.2 Agent Backup Policy 2

Job Mode

Name	Agent Backup Policy 2
Id	48c82831-c4c7-460c-ba64-8871e9b563f6
Type	Server
Mode	Managed by Agent
Description	Created by PHARMAX\administrator at 5/2/2022 10:04 PM.
Priority	Normal Priority

Table 394 - Job Mode - Agent Backup Policy 2

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Protected Computers

Name	Type	Enabled	Container
Linux Protection Group	Custom	Yes	Individual Computers

Table 395 - Protected Computers - Agent Backup Policy 2

Backup Mode

Backup Mode	Entire Computer
Include external USB drives	No

Table 396 - Backup Mode - Agent Backup Policy 2

Destination

Destination Type	Veeam Backup Repository
Retention Policy	Restore Points
Retain Points	7
Configure Secondary Destination for this Job	Yes

Backup Server	VEEAM-VBR.pharmax.local
Backup Repository	SOBR - Minio

Table 397 - Destination - Agent Backup Policy 2

Secondary Target

Job Name	Type	State	Description
PHARMAX-HQ-SVR-TAPE Standard	Backup to Tape	Warning	Created by PHARMAX\administrator at 2/25/2022 7:14 PM.

Table 398 - Secondary Destination Job - Agent Backup Policy 2

Advanced Settings (Backup)

Syntetic Full Backup	-
Active Full Backup	No

Table 399 - Advanced Settings (Backup) - Agent Backup Policy 2

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	No
Defragment and Compact Full Backup (DCFB)	-

Table 400 - Advanced Settings (Maintenance) - Agent Backup Policy 2

Health Check:

Best Practice: It is recommended to use storage-level corruption guard for any backup job with no active full backups scheduled. Synthetic full backups are still 'incremental forever' and may suffer from corruption over time. Storage-level corruption guard was introduced to provide a greater level of confidence in integrity of the backups.

Advanced Settings (Storage)

Compression Level	Optimal
Storage optimization	LocalTarget
Enabled Backup File Encryption	No
Encryption Key	None

Table 401 - Advanced Settings (Storage) - Agent Backup Policy 2

Health Check:

Best Practice: Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups

Advanced Settings (Notification)

Send Snmp Notification	-
Send Email Notification	-

Table 402 - Advanced Settings (Notification) - Agent Backup Policy 2

Guest Processing

Enabled Application Process Processing	Yes
Enabled Guest File System Indexing	Yes

Table 403 - Guest Processing Options - Agent Backup Policy 2

Schedule

Schedule type	
Schedule Options	
If Computer is Power Off Action	
Once Backup is Taken	
Backup At LogOff	-
Backup At Lock	-
Backup At Target Connection	-
Eject Storage After Backup	-
Backup Timeout	

Table 404 - Schedule Options - Agent Backup Policy 2

1.7.13.3 Gurabo PC - Backup Job

Job Mode

Name	Gurabo PC - Backup Job
Id	cc087b1f-629d-4890-ab02-30c6cba80e11
Type	Workstation
Mode	Managed by Agent
Description	Created by PHARMAX\administrator at 4/28/2022 3:19 PM.
Priority	Normal Priority

Table 405 - Job Mode - Gurabo PC - Backup Job

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Protected Computers

Name	Type	Enabled	Container
Gurabo PC - Backup	Custom	Yes	Active Directory
HQ - Manual Packet	Custom	Yes	Manually Deployed

Table 406 - Protected Computers - Gurabo PC - Backup Job

Backup Mode

Backup Mode	Entire Computer
Include external USB drives	No

Table 407 - Backup Mode - Gurabo PC - Backup Job

Destination

Veeam Backup & Replication As Built Report - v1.0

Destination Type	Veeam Backup Repository
Retention Policy	Restore Days
Retain Days To Keep	7
Configure Secondary Destination for this Job	Yes
Backup Server	VEEAM-VBR.pharmax.local
Backup Repository	SOBR - Minio

Table 408 - Destination - Gurabo PC - Backup Job

Secondary Target

Job Name	Type	State	Description
PHARMAX-HQ-SVR-TAPE	Backup to Tape	Failed	Created by PHARMAX\administrator at 6/29/2021 7:24 PM.

Table 409 - Secondary Destination Job - Gurabo PC - Backup Job

Advanced Settings (Backup)

Syntetic Full Backup	No
Active Full Backup	No

Table 410 - Advanced Settings (Backup) - Gurabo PC - Backup Job

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	Yes
SLCG Schedule Type	Monthly
SLCG Schedule Day	Friday Saturday Sunday
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Third Day of Month: 1 Months: January February March April May June July August September October November December
Defragment and Compact Full Backup (DCFB)	Yes
DCFB Schedule Type	Monthly
DCFB Schedule Day	Thursday Friday Saturday
DCFB Backup Monthly Schedule	Day Of Week: Saturday Day Number In Month: Last Day of Month: 1 Months: January February March April May June July August September October November December

Table 411 - Advanced Settings (Maintenance) - Gurabo PC - Backup Job

Advanced Settings (Storage)

Compression Level	Optimal
Storage optimization	LocalTarget
Enabled Backup File Encryption	Yes
Encryption Key	Password Global

Table 412 - Advanced Settings (Storage) - Gurabo PC - Backup Job

Advanced Settings (Notification)

Send Snmp Notification	-
Send Email Notification	-

Table 413 - Advanced Settings (Notification) - Gurabo PC - Backup Job

Backup Cache

Maximum Size	Type	Path
10 GB	Automatic	Auto Selected

Table 414 - Backup Cache - Gurabo PC - Backup Job

Schedule

Schedule type	Daily
Schedule Options	Recurrence: WeekDays, Days: Monday Tuesday Wednesday Thursday Friday At: 22:00:00
If Computer is Power Off Action	Backup At Power On
Once Backup is Taken	Keep Running
Backup At LogOff	Yes
Backup At Lock	No
Backup At Target Connection	Yes
Eject Storage After Backup	Yes
Backup Timeout	2 Hour

Table 415 - Schedule Options - Gurabo PC - Backup Job

1.7.13.4 Linux Agent Backup Job

Job Mode

Name	Linux Agent Backup Job
Id	190c96cd-7b9a-48f4-82af-3dbc4f00dbe3
Type	Server
Mode	Managed by Backup Server
Description	Created by PHARMAX\administrator at 4/29/2022 8:11 PM.
Priority	Normal Priority

Table 416 - Job Mode - Linux Agent Backup Job

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Protected Computers

Name	Type	Enabled	Container
Linux Protection Group	Custom	Yes	Individual Computers

Table 417 - Protected Computers - Linux Agent Backup Job

Backup Mode

Backup Mode	Entire Computer
Include external USB drives	No

Table 418 - Backup Mode - Linux Agent Backup Job

Storage

Backup Repository	Linux - Hardened Repository
Repository Type	LinuxLocal
Retention Policy	Restore Days
Retain Days To Keep	7
Configure Secondary Destination for this Job	Yes
Keep certain full backup longer for archival purposes (GFS)	Yes
Keep Weekly full backup for	1 weeks, If multiple backup exist use the one from: Sunday
Keep Monthly full backup for	1 months, Use weekly full backup from the following week of the month: First
Keep Yearly full backup for	1 years, Use monthly full backup from the following month: January

Table 419 - Destination - Linux Agent Backup Job

Secondary Target

Job Name	Type	State	Description
PHARMAX-HQ-SVR-TAPE	Backup to Tape	Failed	Created by PHARMAX\administrator at 6/29/2021 7:24 PM.

Table 420 - Secondary Destination Job - Linux Agent Backup Job

Advanced Settings (Backup)

Syntetic Full Backup	Yes
Create Syntetic on Days	Saturday
Active Full Backup	No

Table 421 - Advanced Settings (Backup) - Linux Agent Backup Job

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	No
---------------------------------------	----

Defragment and Compact Full Backup (DCFB)	No
---	----

Table 422 - Advanced Settings (Maintenance) - Linux Agent Backup Job

Health Check:

Best Practice: *It is recommended to use storage-level corruption guard for any backup job with no active full backups scheduled. Synthetic full backups are still 'incremental forever' and may suffer from corruption over time. Storage-level corruption guard was introduced to provide a greater level of confidence in integrity of the backups.*

Advanced Settings (Storage)

Compression Level	Optimal
Storage optimization	LocalTarget
Enabled Backup File Encryption	No
Encryption Key	None

Table 423 - Advanced Settings (Storage) - Linux Agent Backup Job

Health Check:

Best Practice: *Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups*

Advanced Settings (Notification)

Send Snmp Notification	No
Send Email Notification	No

Table 424 - Advanced Settings (Notification) - Linux Agent Backup Job

Advanced Settings (Script)

Run the Following Script Before	Yes
Run the Following Script After	Yes
Run Script Before the Job	pre_mysql.sh
Run Script After the Job	post_mysql.sh
Run Script Frequency	Days
Run Script on the Selected Days	Saturday,Sunday

Table 425 - Advanced Settings (Script) - Linux Agent Backup Job

Schedule

Retry Failed item	3
Wait before each retry	10/min
Backup Window	Yes
Schedule type	Daily
Schedule Options	Recurrence: WeekDays, Days: Monday Tuesday Wednesday Thursday Friday At: 22:00:00

Table 426 - Schedule Options - Linux Agent Backup Job

1.7.13.5 Server With Netapp LUNS - Backup

Job Mode

Name	Server With Netapp LUNS - Backup
Id	b4f0ac88-76ab-4c61-b142-0cff89ec91f2
Type	Server
Mode	Managed by Backup Server
Description	Created by PHARMAX\administrator at 3/1/2021 5:12 PM.
Priority	Normal Priority

Table 427 - Job Mode - Server With Netapp LUNS - Backup

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Protected Computers

Name	Type	Enabled	Container
Server with Netapp LUNS	Custom	Yes	Active Directory
server-dc-01v.pharmax.local	Computer	-	Individual Computer

Table 428 - Protected Computers - Server With Netapp LUNS - Backup

Backup Mode

Backup Mode	Entire Computer
Include external USB drives	No

Table 429 - Backup Mode - Server With Netapp LUNS - Backup

Storage

Backup Repository	SOBR - Minio
Repository Type	ExtendableRepository
Retention Policy	Restore Points
Restore Points	8
Configure Secondary Destination for this Job	Yes
Keep certain full backup longer for archival purposes (GFS)	Yes
Keep Weekly full backup for	1 weeks, If multiple backup exist use the one from: Sunday
Keep Monthly full backup for	1 months, Use weekly full backup from the following week of the month: First
Keep Yearly full backup for	1 years, Use monthly full backup from the following month: January

Table 430 - Destination - Server With Netapp LUNS - Backup

Secondary Target

Job Name	Type	State	Description
PHARMAX-HQ-SVR-TAPE Standard	Backup to Tape	Warning	Created by PHARMAX\administrator at 2/25/2022 7:14 PM.
PHARMAX-HQ-SVR-TAPE	Backup to Tape	Failed	Created by PHARMAX\administrator at 6/29/2021 7:24 PM.

Table 431 - Secondary Destination Job - Server With Netapp LUNS - Backup

Advanced Settings (Backup)

Syntetic Full Backup	Yes
Create Syntetic on Days	Saturday
Active Full Backup	No

Table 432 - Advanced Settings (Backup) - Server With Netapp LUNS - Backup

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	No
Defragment and Compact Full Backup (DCFB)	No

Table 433 - Advanced Settings (Maintenance) - Server With Netapp LUNS - Backup

Health Check:

Best Practice: It is recommended to use storage-level corruption guard for any backup job with no active full backups scheduled. Synthetic full backups are still 'incremental forever' and may suffer from corruption over time. Storage-level corruption guard was introduced to provide a greater level of confidence in integrity of the backups.

Advanced Settings (Storage)

Compression Level	Optimal
Storage optimization	LocalTarget
Enabled Backup File Encryption	No
Encryption Key	None

Table 434 - Advanced Settings (Storage) - Server With Netapp LUNS - Backup

Health Check:

Best Practice: Backup and replica data is a high potential source of vulnerability. To secure data stored in backups and replicas, use Veeam Backup & Replication inbuilt encryption to protect data in backups

Advanced Settings (Notification)

Send Snmp Notification	Yes
Send Email Notification	Yes
Email Notification Additional Addresses	rebelinux@gmail.com
Use Custom Email Notification Options	Yes
Use Custom Notification Setting	[%JobResult%] %JobName% (%ObjectCount% machines) %Issues%
Notify On Success	Yes
Notify On Warning	Yes

Notify On Error	No
Suppress Notification until Last Retry	No

Table 435 - Advanced Settings (Notification) - Server With Netapp LUNS - Backup

Advanced Settings (Integration)

Enable Backup from Storage Snapshots	Yes
Failover to On-Host Backup agent	Yes
Off-host Backup Proxy Automatic Selection	No
Off-host Backup Proxy Server	VEEAM-VBR-02V.pharmax.local

Table 436 - Advanced Settings (Integration) - Server With Netapp LUNS - Backup

Advanced Settings (Script)

Run the Following Script Before	Yes
Run the Following Script After	Yes
Run Script Before the Job	sql_pre.cmd
Run Script After the Job	sql_post.cmd
Run Script Frequency	Cycles
Run Script Every Backup Session	1

Table 437 - Advanced Settings (Script) - Server With Netapp LUNS - Backup

Guest Processing

Enabled Application Process Processing	Yes
Enabled Guest File System Indexing	No

Table 438 - Guest Processing Options - Server With Netapp LUNS - Backup

Schedule

Retry Failed item	3
Wait before each retry	1/min
Backup Window	No
Schedule type	After Job
Schedule Options	COMP-CLUSTER-NFS

Table 439 - Schedule Options - Server With Netapp LUNS - Backup

1.7.14 File Share Backup Jobs

The following section list file share backup jobs created in Veeam Backup & Replication.

Name	Type	Status	Latest Result	Last Run
File Backup Job 1	File Backup	Enabled	Failed	06/03/2023 22:47:06
Server - Share Backup	File Backup	Enabled	Failed	Unknown

Table 440 - File Share Backup Jobs - VEEAM-VBR

1.7.15 File Share Backup Jobs Configuration

The following section details the configuration of File Share type backup jobs.

1.7.15.1 File Backup Job 1

Common Information

Name	File Backup Job 1
Type	File Backup
Total Backup Size	0 KB
Target Address	
Target File	File Backup Job 1
Description	Created by PHARMAX\jocolon at 1/8/2022 8:31 PM.
Modified By	PHARMAX\administrator

Table 441 - Common Information - File Backup Job 1

Health Check:

Best Practice: *It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.*

Files and Folders

Name	ONTAP-HQ-SAN
Resource Type	Host
Role	Include
Location	ONTAP-HQ-SAN
Approx Size	0 B
File Filter Include Masks	*.*
File Filter Exclude Masks	.*.tmp; /*.snapshot; */~snapshot; *\.snapshot; *\~snapshot; /.\snapshot; /~snapshot; \.\snapshot; \~snapshot; \admin\$; \C\$; \ipc\$;

Table 442 - Files and Folders - ONTAP-HQ-SAN

Name	PHARMAX-ISILON
Resource Type	Host
Role	Include
Location	PHARMAX-ISILON
Approx Size	0 B
File Filter Include Masks	*.*
File Filter Exclude Masks	*/.\snapshot; */~snapshot; *\.snapshot; *\~snapshot; /.\snapshot; /~snapshot; \.\snapshot; \~snapshot; \admin\$; \C\$; \ipc\$;

Table 443 - Files and Folders - PHARMAX-ISILON

Storage

Backup Repository	SOBR - Minio
Keep all file versions for the last	28 Day
Keep previous file versions for	3 Year

Archive repository	Linux - Hardened Repository
File to Archive	All file except the following extension: *.tmp *.ods

Table 444 - Storage Options - File Backup Job 1

Advanced Settings (File Version)

File version to keep	Limit the number of both recent and archived file versions
Active file version limit	10
Delete file version limit	3

Table 445 - Advanced Settings (File Version) - File Backup Job 1

Advanced Settings (Storage)

Inline Data Deduplication	Yes
Compression Level	OPTIMAL (Default)
Enabled Backup File Encryption	Yes
Encryption Key	Password Global

Table 446 - Advanced Settings (Storage) - File Backup Job 1

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	Yes
SLCG Schedule Type	Daily
SLCG Schedule Day	Friday Saturday Sunday

Table 447 - Advanced Settings (Maintenance) - File Backup Job 1

Advanced Settings (Notification)

Send Snmp Notification	Yes
Send Email Notification	Yes
Email Notification Additional Addresses	rebelinux@gmail.com
Email Notify Time	10:00 PM
Use Custom Email Notification Options	Yes
Use Custom Notification Setting	[%JobResult%] %JobName% (%ObjectCount% objects) %Issues%
Notify On Success	Yes
Notify On Warning	Yes
Notify On Error	Yes
Suppress Notification until Last Retry	Yes
Set Results To Vm Notes	No
VM Attribute Note Value	Notes
Append to Existing Attribute	Yes

Table 448 - Advanced Settings (Notification) - File Backup Job 1

Advanced Settings (Script)

Run the Following Script Before	Yes
---------------------------------	-----

Veeam Backup & Replication As Built Report - v1.0

Run Script Before the Job	caca.sh
Run the Following Script After	Yes
Run Script After the Job	cacaout.sh
Run Script Frequency	Cycles
Run Script Every Backup Session	1

Table 449 - Advanced Settings (Script) - File Backup Job 1

Secondary Target

Job Name	Type	State	Description
File Backup Job 1 (Copy) 1	Backup Copy	None	

Table 450 - Secondary Destination Jobs - File Backup Job 1

Schedule

Retry Failed item	3
Wait before each retry	10/min
Backup Window	Yes
Schedule type	Daily
Schedule Options	Kind: Everyday, Days: Sunday Monday Tuesday Wednesday Thursday Friday Saturday
Start Time	10:00 PM
Latest Run	06/03/2023 22:00:13

Table 451 - Schedule Options - File Backup Job 1

Backup Window Time Period

Permitted \ Denied

H	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
Sun																								
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								

Table 452 - Backup Window - File Backup Job 1

1.7.15.2 Server - Share Backup

Common Information

Name	Server - Share Backup
Type	File Backup
Total Backup Size	0 KB
Target Address	
Target File	Server - Share Backup

Description	Created by PHARMAX\administrator at 9/16/2022 7:02 PM.
Modified By	PHARMAX\administrator

Table 453 - Common Information - Server - Share Backup

Health Check:

Best Practice: It is a general rule of good practice to establish well-defined descriptions. This helps to speed up the fault identification process, as well as enabling better documentation of the environment.

Files and Folders

Name	\server-dc-01v\UEMConfig
Resource Type	
Role	Include
Location	\server-dc-01v\UEMConfig
Approx Size	0 B
File Filter Include Masks	
File Filter Exclude Masks	\.snapshot; \server-dc-01v\UEMConfig\.snapshot; \server-dc-01v\UEMConfig\~snapshot; \~snapshot;

Table 454 - Files and Folders - \server-dc-01v\UEMConfig

Storage

Backup Repository	SOBR - Minio
Keep all file versions for the last	28 Day
Keep previous file versions for	3 Year
Archive repository	HQ - Backups
File to Archive	All Files: *.*

Table 455 - Storage Options - Server - Share Backup

Advanced Settings (File Version)

File version to keep	Keep all file versions
----------------------	------------------------

Table 456 - Advanced Settings (File Version) - Server - Share Backup

Advanced Settings (Storage)

Inline Data Deduplication	Yes
Compression Level	OPTIMAL (Default)
Enabled Backup File Encryption	No
Encryption Key	None

Table 457 - Advanced Settings (Storage) - Server - Share Backup

Advanced Settings (Maintenance)

Storage-Level Corruption Guard (SLCG)	Yes
SLCG Schedule Type	Monthly
SLCG Backup Monthly Schedule	Day Of Week: Friday Day Number In Month: Last Day of Month: 1

Months: January February March April May June July August September October November December
--

Table 458 - Advanced Settings (Maintenance) - Server - Share Backup

Advanced Settings (Notification)

Send Snmp Notification	Yes
Send Email Notification	Yes
Email Notification Additional Addresses	rebelinux@gmail.com
Email Notify Time	10:00 PM
Use Custom Email Notification Options	No
Use Custom Notification Setting	[%JobResult%] %JobName% (%ObjectCount% objects) %Issues%
Notify On Success	Yes
Notify On Warning	Yes
Notify On Error	Yes
Suppress Notification until Last Retry	Yes
Set Results To Vm Notes	No
VM Attribute Note Value	Notes
Append to Existing Attribute	Yes

Table 459 - Advanced Settings (Notification) - Server - Share Backup

Advanced Settings (Script)

Run the Following Script Before	Yes
Run Script Before the Job	test.cmd
Run the Following Script After	No
Run Script After the Job	
Run Script Frequency	Days
Run Script on the Selected Days	Saturday

Table 460 - Advanced Settings (Script) - Server - Share Backup

Schedule

Retry Failed item	3
Wait before each retry	10/min
Backup Window	No
Shedule type	Monthly
Shedule Options	Day Of Month: 1, Day Number In Month: Fourth, Day Of Week: Saturday
Start Time	10:00 PM
Latest Run	10/22/2022 22:00:14

Table 461 - Schedule Options - Server - Share Backup

1.8 Infrastructure Security Hardening

Protecting your infrastructure successfully is all about understanding the current attack vectors; what and whom you are protecting, your Veeam infrastructure, against. If you know what and whom you are

protecting against, makes it easier to take the correct countermeasures. One of those countermeasures is hardening.

Looking at the different Veeam Backup & Replication components you have to protect the following components:

- * Veeam Backup server
- * User Accounts
- * Backup repositories
- * Backup data flows

1.8.1 Backup & Replication Server (VEEAM-VBR)

1.8.1.1 Remove Unused Components

Remove all non-essential software programs and utilities from the deployed Veeam components. While these programs may offer useful features to the administrator, if they provide 'back-door' access to the system, they must be removed during the hardening process. Think about additional software like web browsers, java, adobe reader and such. All parts which do not belong to the operating system or to active Veeam components, remove it. It will make maintaining an up-to-date patch level much easier.

Name	Publisher
7-Zip 22.01	Igor Pavlov
Graphviz	Graphviz

Table 462 - Non-essential software programs - VEEAM-VBR

Reference: https://bp.veeam.com/vbr/Security/infrastructure_hardening.html#remove-unused-components

1.8.1.2 Remove Backup & Replication Console

Remove the Veeam Backup & Replication Console from the Veeam Backup & Replication server. The console is installed locally on the backup server by default.

Name	Publisher
Veeam Backup & Replication Console	Veeam Software Group GmbH
Veeam Explorer for Microsoft Active Directory	Veeam Software Group GmbH
Veeam Explorer for Microsoft Exchange	Veeam Software Group GmbH
Veeam Explorer for Microsoft SharePoint	Veeam Software Group GmbH
Veeam Explorer for Microsoft SQL Server	Veeam Software Group GmbH
Veeam Explorer for Microsoft Teams	Veeam Software Group GmbH
Veeam Explorer for Oracle	Veeam Software Group GmbH
Veeam Explorer for PostgreSQL	Veeam Software Group GmbH

Table 463 - Backup & Replication Console - VEEAM-VBR

Reference: https://bp.veeam.com/vbr/Security/infrastructure_hardening.html#how-to-remove-the-veeam-backup--replication-console

1.8.1.3 Switch off the vPower NFS Service

Stop the Veeam vPower NFS Service if you do not plan on using the following Veeam features: SureBackup, Instant Recovery, or Other-OS File Level Recovery (FLR) operations.

Display Name	Short Name	Status
Veeam vPower NFS Service	VeeamNFSSvc	Running

Table 464 - vPower NFS Services Status - VEEAM-VBR

Reference: https://bp.veeam.com/vbr/Security/infrastructure_hardening.html#remove-unused-components

1.8.2 Enterprise Manager

When Enterprise Manager is not in use de-install it and remove it from your environment.

1.8.2.1 Enterprise Manager Server (VEEAM-EM)

Server Name	VEEAM-EM.pharmax.local
Server URL	https://VEEAM-EM.pharmax.local:9443
Skip License Push	No
Is Connected	Yes

Table 465 - Enterprise Manager - VEEAM-VBR

1.8.3 Console Access

The Veeam Backup & Replication console is a client-side component that provides access to the backup server. The console lets several backup operators and admins log in to Veeam Backup & Replication simultaneous and perform all kind of data protection and disaster recovery operations as if you work on the backup server.

Install the Veeam Backup & Replication console on a central management server that is, positioned in a DMZ and protected with 2-factor authentication. Do NOT install the console on the local desktops of backup & recovery admins.

1.8.4 Roles and Users

Deploy an Access Control policy, managing access to management components is crucial for a good protection. Use the principle of least privilege. Provide the minimal privilege needed for some operation to occur. An attacker who gained high-privilege access to backup infrastructure servers can get credentials of user accounts and compromise other systems in your environment. Make sure that all accounts have a specific role and that they are added to that specific group.

Containment to keep the attackers from moving around too easily. Some standard measures and policies are:

- * Do not use user accounts for admin access, reducing incidents and accidents.
- * Give every Veeam admin his own admin account or add their admin account to the appropriate security group within Veeam, for traceability and easy adding and removal.
- * Only give out access to what is needed for the job.
- * Limit users who can log in using Remote Desktop and/or Veeam Backup Console.
- * Add 2-factor authentication to highly valuable assets.
- * Monitor your accounts for suspicious activity.

A role assigned to the user defines the user activity scope: what operations in Veeam Backup & Replication the user can perform.

Name	Type	Role
Administrators	Group	BackupAdmin
PHARMAX\veeam_admin	User	BackupOperator
PHARMAX\vruser	User	BackupOperator

Table 466 - Roles and Users - VEEAM-VBR

Reference: https://bp.veeam.com/vbr/Security/infrastructure_hardening.html#roles-and-users

1.8.4.1 Password Management Policy

Use a clever Password management policy, which works for your organization. Enforcing the use of strong passwords across your infrastructure is a valuable control. It's more challenging for attackers to guess passwords/crack hashes to gain unauthorized access to critical systems.

Selecting passwords of 10 characters with a mixture of upper and lowercase letters, numbers and special characters is a good start for user accounts.

For Admin accounts adding 2-factor authentication is also a must to secure the infrastructure.

And for service accounts use 25+ characters combined with a password tool for easier management. An Admin can copy and paste the password when needed, increasing security of the service accounts.

Password Must Meet Complexity Requirements	Yes
Max Password Age	42
Min Password Age	1
Min Password Length	7
Enforce Password History	24
Store Password using Reversible Encryption	No

Table 467 - Password Management Policy - VEEAM-VBR

Reference: https://bp.veeam.com/vbr/Security/infrastructure_hardening.html#password-management-policy

1.8.4.2 Lockout Policy

Use a Lockout policy that complements a clever password management policy. Accounts will be locked after a small number of incorrect attempts. This can stop password guessing attacks dead in the water. But be careful that this can also lock everyone out of the backup & replication system for a period! For service accounts, sometimes it is better just to raise alarms fast. Instead of locking the accounts. This way you gain visibility into suspicious behavior towards your data/infrastructure.

Account Lockout Thresholds	5
Account Lockout Duration Age	30
Reset account lockout counter after	30

Table 468 - Lockout Policy - VEEAM-VBR

Reference: https://bp.veeam.com/vbr/Security/infrastructure_hardening.html#lockout-policy

1.8.5 Required Permissions

Use the principle of least privilege. Provide the minimal required permissions needed for the accounts to run. The accounts used for installing and using Veeam Backup & Replication must have the following permissions:

* https://helpcenter.veeam.com/docs/backup/vsphere/required_permissions.html?ver=110

Backup proxies must be considered the target for compromise. During backup, proxies obtain from the backup server credentials required to access virtual infrastructure servers. A person having administrator privileges on a backup proxy can intercept the credentials and use them to access the virtual infrastructure.

1.8.5.1 VMware vSphere Credentials

If VMware vCenter Server is added to the backup infrastructure, an account with reduced permissions can be used. Use the minimum permissions for your use-case. See Required Permissions document:

* <https://helpcenter.veeam.com/docs/backup/permissions/installation.html?ver=110>

For example, Hot-Add backup requires the delete disk permission. You can also consider elevating permissions for restores.

1.8.5.1.1 vCenter Server

Name	Credential
192.168.5.2	administrator@vsphere.local
vcenter-01v.phamax.local	administrator@vsphere.local
vcenter-03v.phamax.local	administrator@vsphere.local

Table 469 - vCenter Servers - VEEAM-VBR

1.8.5.1.2 Standalone ESXi Server

Name	Credential
disaster-01a.phamax.local	root

Table 470 - ESXi Servers - VEEAM-VBR

Reference: <https://helpcenter.veeam.com/docs/backup/permissions/installation.html?ver=110>

1.8.6 Encryption

Backup and replica data is a highly potential source of vulnerability. To secure data stored in backups and replicas, follow these guidelines:

- * Ensure physical security of target servers. Check that only authorized personnel have access to the room where your target servers (backup repositories and hosts) reside.
- * Restrict user access to backups and replicas. Check that only authorized users have permissions to access backups and replicas on target servers.
- * Encrypt data in backups. Use Veeam Backup & Replication inbuilt encryption to protect data in backups. To guarantee security of data in backups, follow Encryption Best Practices.

Reference: https://bp.veeam.com/vbr/Security/infrastructure_hardening.html#encryption

1.8.6.1 Backup Jobs Encryption Status

Data security is an important part of the backup strategy. You must protect your information from unauthorized access, especially if you back up sensitive VM data to off-site locations or archive it to tape. To keep your data safe, you can use data encryption.

1.8.6.1.1 Backup Jobs

Name	Storage Encryption	Encryption Key
Backup - Replicated VM - Cloud Virtualdcs	No	None
Backup Copy Job 1	Yes	Password Global
Cisco-CSR-Replication	No	None
Cloud-Replication-Virtualdcs	No	None
COMP-CLUSTER-NFS	No	None
File Backup Job 1 (Copy) 1	Yes	Password Global
HPE-StoreOnce-Copy-Job	No	None
HQ-to-EDGE	No	None
HVCluster-To-HVStandalone	No	None
Hyper-V-Backup-Copy	Yes	Password Global
HyperV-Backup-Job	Yes	Password Global
PHARMAX-HQ-SVR	Yes	Password Global
SOBR - TEST	No	None
VM - Test - AWS	No	None
VM Copy Job 1	No	None
WIN HyperV VM Backup	Yes	Password Global

Table 471 - Backup Jobs - VEEAM-VBR

1.8.6.1.2 Agent Backup Jobs

Name	Enabled Backup File Encryption	Encryption Key
Agent Backup Job 3	No	None
Agent Backup Policy 2	No	None
Gurabo PC - Backup Job	Yes	Password Global
Linux Agent Backup Job	No	None
Server With Netapp LUNS - Backup	No	None

Table 472 - Agent Backup Jobs - VEEAM-VBR

1.8.6.1.3 File Share Backup Jobs

Name	Enabled Backup File Encryption	Encryption Key
File Backup Job 1	Yes	Password Global
Server - Share Backup	No	None

Table 473 - File Share Backup Jobs - VEEAM-VBR

1.8.6.2 Encrypt Network Traffic

By default, Veeam Backup & Replication encrypts network traffic traveling between public networks. To ensure secure communication of sensitive data within the boundaries of the same network, you can also encrypt backup traffic in private networks.

Name	Source IP Start	Source IP End	Target IP Start	Target IP End	Encryption Enabled
Inter-Site-to-DR	192.168.7.1	192.168.7.255	10.10.33.1	10.10.33.255	No
Internet	Any	-	Internet	-	Yes

Table 474 - Encrypt Network Traffic - VEEAM-VBR

1.8.7 Backup and Replication Database

The Backup & Replication configuration database stores credentials to connect to virtual servers and other systems in the backup & replication infrastructure. All passwords stored in the database are encrypted. However, a user with administrator privileges on the backup server can decrypt the passwords, which presents a potential threat.

Reference: https://bp.veeam.com/vbr/Security/infrastructure_hardening.html#backup-and-replication-database

1.8.7.1 Encrypt Data in Configuration Backups

Enable data encryption for configuration backup to secure sensitive data stored in the configuration database.

Reference:

https://helpcenter.veeam.com/docs/backup/vsphere/config_backup_encrypted.html?ver=110

Name	Backup Configuration Job
Run Job Automatically	Yes
Schedule Type	Daily
Schedule Options	Type: Everyday Period: 10:00:00 Day Of Week: Sunday Monday Tuesday Wednesday Thursday Friday Saturday
Restore Points To Keep	10
Encryption Enabled	Yes
Encryption Key	Password Global
Additional Address	veeam_admin@pharmax.local
Email Subject	[%JobResult%] %JobName% (%Time%)
Notify On	Notify On Success: No Notify On Warning: Yes Notify On Error: Yes Notify On Last Retry Only: Yes
NextRun	
Target	Linux - Hardened Repository
Enabled	No
LastResult	Failed

Table 475 - Configuration Backup Settings - VEEAM-VBR

