# Hyper-V Replication – Enabling VM Replica

### Below document prepared by taking the example "MOB-TEST" VM

### Prerequisites:

- Make sure sufficient disk free space available at Primary site & Replica site servers
  - At primary site, approx. disk space observed during initial replication requires double the size of VHD because snapshots & HRL files will be created in same VHD folder at the time of initial replication.
- Make Sure Replica Broker Service (Role) is online in cluster roles.
- > For successful replication, VM backup need to stop till replication completion
- In this SOP, Initial replica export will be taken to external HDD due to less bandwidth –Make sure it is connected to Hyper-v server wherever VM's hosted.

2	Server	Replication Configuration
	<ul> <li>Virtual Hard Disks         <ul> <li>C: \Users \Public \Documents \Hyper</li> <li>Virtual Machines</li> <li>C: \ProgramData \Microsoft \Windo</li> </ul> </li> <li>Physical GPUs         <ul> <li>Manage RemoteFX GPUs</li> <li>NUMA Spanning</li> <li>Allow NUMA Spanning</li> <li>Live Migrations</li> <li>21 Simultaneous Migrations</li> <li>Storage Migrations</li> <li>21 Simultaneous Migrations</li> </ul> </li> </ul>	Enable this computer as a Replica server.      Authentication and ports     Specify the authentication types to allow for incoming replication traffic. Ensure     that the ports you specify are open in the firewall.      V Use Kerberos (HTTP):     Data sent over the network will not be encrypted.     Specify the port:         80      Use certificate-based Authentication (HTTPS):     Data sent over the network will be encrypted.
	FY Replication Configuration Enabled as a Replica server	Specify the port: 443
*	User	Specify the certificate:
	Keyboard Use on the virtual machine Mouse Release Key CTRL+ALT+LEFT ARROW Reset Check Boxes Reset check boxes	Issued To: Issued By: Expiration Date: Intended Purpose: Select Certificate

### At Primary Site

21 Simultaneous Migrations			
Replication Configuration	-Authorization and storag	le	
Enabled as a Replica server	Specify the servers that	t are allowed to replicate virtual ma	achines to this
User	computer.		
🍪 Keyboard	Allow replication from the second	m any authenticated server	
Use on the virtual machine	Specify the default	location to store Replica files:	
Mouse Release Key	C. I Charles Charges 1		
CIRCHALT +LEFT ARROW	C: (ClusterStorage)	volume1(vm_Replica)	
Reset check boxes			Browse
	O Allow replication fro	m the specified servers:	
	Primary Server	Storage Location	Trust Group
		Add Modify	Remove
	<ol> <li>This server is part of</li> </ol>	a failover cluster. Use the Failover	Cluster Manager to
	change replication se	ttings.	~
		OK Ca	ancel Apply

## **Replica Broker at Primary**

2			b			C
Name	Status	Туре	Owner Node	Priority	Information	
REPLEKR	() Running	Hyper-V Replica Broker	-	Medium		9
			0			

At Replica Site

Mich al Hand Diala	Replication Configuration
Virtual Hard Disks	
C:\Users\Public\Documents\Hyper	Enable this computer as a Replica server.
Virtual Machines	Authentication and ports
Physical GPUs	Specify the authentication types to allow for incoming replication traffic. Ensure that the ports you specify are open in the firewall.
Manage Remoter X GPUs	✓ Use Kerberos (HTTP):
Allow NUMA Spanning	Data sent over the network will not be encrypted.
Live Migrations	Specify the part: 80
20 Simultaneous Migrations	Lies cartificate based & distriction (ATTDC):
Storage Migrations	C ose cerandate based Autoentication (in 195):
20 Smultaneous Migrations	Data sent over the network will be encrypted.
Enabled as a Replica server	Specify the port: 443
User	Specify the certificate:
😵 Keyboard	Issued To:
Use on the virtual machine	Issued By:
🧩 Mouse Release Key	Intended Purpose:
CTRL+ALT+LEFT ARROW	
Reset Check Boxes	Select Certificate
20 Simultaneous Migrations	
Replication Configuration Enabled as a Replica server	Authorization and storage
User	computer.
😵 Keyboard	Allow replication from any authenticated server
Use on the virtual machine	Specify the default location to store Peolice files
R Mouse Deleges Key	
TTDL ALT USET ADDOW	If the luctor storado Wollimo SWM, Deplica V
CTRL+ALT+LEFT ARROW	ic, closter storage (vidines (vi-replica (
CTRL+ALT+LEFT ARROW Reset Check Boxes Reset check boxes	Browse
Reset Check Boxes     Reset check boxes	Browse
CTRL +ALT +LEFT ARROW Reset Check Boxes Reset check boxes	Allow replication from the specified servers:
CTRL +ALT +LEFT ARROW  Reset Check Boxes Reset check boxes	Allow replication from the specified servers:      Primary Server Storage Location Trust Group
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CTRL +ALT +LEFT ARROW Reset Check Boxes Reset check boxes	Allow replication from the specified servers:      Primary Server Storage Location Trust Group
CTRL +ALT +LEFT ARROW  Reset Check Boxes Reset check boxes	Allow replication from the specified servers:      Primary Server Storage Location Trust Group

This server is part of a failover cluster. Use the Failover Cluster Manager to change replication settings.

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### **Replica Broker at Replica site**



### How to Enable Replica for a VM in Cluster

Choose the VM to enable replica. Now, I take the example of MOB-TEST VM to enable replica between Primary Site and Replica Sites.

9	Settings for the settings for the settings	
	Virtual Hard Disk Properties 📃 🗖	x
Hardware     Add Hardware     BIOS     Boot from CD	General Format: VHD	
Memory 4096 MB	Type: Dynamically expanding virtual hard disk	
1 Virtual processor	Location:	
Ca Hard Drive	Current File Size: 79.9 GB	
DVD Drive None	Maximum Disk Size: 80 GB	
SCSI Controller	Close	
	Disk 10 800.05 GB Bus 0 Lun 8 Tarpet 0	1

MOB-TEST VM Size is 80 GB and folder path as below –<u>Verification step only</u>

Login to Primary server, Go to Hyper-v Manager -> Select VM MOB-TEST -> Right Click to enable replication

	Running	1%	1002-110	
	Running	0%	Connect	
			Settings	
			Turn Off	
			Shut Down	
napshots			Save	
		-	Pause	
		The selected v	Reset	
			Snapshot	
			Move	
<b>Willing</b>			Rename	
			Enable Replication	

P	Enable Replication for Mob
Before You	Begin
Before You Begin	This wizard helps you to configure replication for a virtual machine.
Specify Replica Server Specify Connection Parameters Choose Replication VHDs Configure Recovery History Choose Initial Replication Method Summary	Before you proceed, ensure that you have configured a server to allow replication from this computer. To verify this, use the Replication Configuration page of the Hyper-V Settings for the specified Replica server. To prepare for completing this wizard, you can learn more about replication settings by clicking the help link.
	Do not show this page again. More about enabling replication for a virtual machine
	< Previous Next > Finish Cancel

Before You Begin Specify Replica Server	Specify the Replica server name to use to replicate this virtual machine. If the Replica server is on a failover cluster, specify the name of the Hyper-V Replica Broker as the Replica server. Use the Failover Cluster Manager on the Replica server to find the name of the Replica Broker.
Specify Connection Parameters Choose Replication VHDs Configure Recovery History Choose Initial Replication Method Summary	Replica server: Browse
	< Previous Next > Finish Cancel

Provide the Replica site Replica Broker name in the path as per above screenshot and click on Next

Specify Connection Parameters Choose Replication VHDs Configure Recovery History	Replica server:	Browse
noose Initial Replication lethod ummary	Verifying configuration Cancel	
	< Previous N	ext > Finish Cancel
Enorth Con	ner non varamerers	
Specify Con	incerton Parameters	
efore You Begin	Replica server:	
efore You Begin pecify Replica Server	Replica server: ReplBKR.TFO.LOCAL Replica server port: 80	
efore You Begin pecify Replica Server pecify Connection arameters	Replica server: REPLBKR.TFO.LOCAL Replica server port: 80 Authentication Type	
efore You Begin pecify Replica Server pecify Connection arameters hoose Replication VHDs	Replica server: Replica server port: Authentication Type Use Kerberos authentication (HTTP)	
Specify Con lefore You Begin ipecify Replica Server pecify Connection arameters Thoose Replication VHDs Configure Recovery History	Replica server: Replica server port: 80 Authentication Type Use Kerberos authentication (HTTP) Data will not be encrypted while being transmitted on	ver the network.
Specify Con lefore You Begin ipecify Replica Server pecify Connection connectors choose Replication VHDs Configure Recovery History choose Initial Replication	Replica server: Replica server port: 80 Authentication Type Use Kerberos authentication (HTTP) Data will not be encrypted while being transmitted ov O Use certificate-based authentication (HTTPS)	ver the network.

Compress the data that is transmitted over the network.

< Previous Next > Finish Cancel

In above screenshot, I <u>unchecked the Compress the data that is transmitted over network</u> because the customer is already had WAN optimizer. Based on customer requirement, enable the same

Choose Rep	lication VHDs
Before You Begin Specify Replica Server Specify Connection Parameters Choose Replication VHDs Configure Recovery History Choose Initial Replication Method Summary	Clear the check boxes of any virtual hard disks (VHDs) that you do not want to replicate (for example, a VHD used for a dedicated paging file). Not replicating certain VHDs, such as the operating system VHD, could result in the Replica virtual machine not starting up properly. Virtual Hard Disks: CL_CLusterStorage (Volume6)
	< Previous Next > Finish Cancel

Choose the VHD's which are need to be part of replica.

### Note:

If VM 's are configured with explicit page drives on different VHD files then it is good practice to exclude the Page File's VHD from replication - In this example, it is not applicable.

Configure F	Recovery History
Before You Begin Specify Replica Server Specify Connection Parameters Choose Replication VHDs	You can choose to store only the latest recovery point of the primary virtual machine on the Replica server or to add additional recovery points, allowing you to recover to an earlier point in time. Additional recovery points require more storage and processing resources. Specify the number of recovery points to save. <ul> <li>Only the latest recovery point</li> </ul>
Configure Recovery History	Additional recovery points
Choose Initial Replication Method	Number of additional recovery points to be stored:
Summary	Additional recovery snapshots are created every hour. Estimated additional space required on the Replica server for storing these recovery snapshots: 31.96 G8 To replicate an incremental snapshot using the Volume Shadow Copy Service (VSS), select the following check box, and then use the slider to specify the frequency these snapshots are taken. Using application-consistent copies will impact the performance of applications running in the primary virtual machine when these snapshots are taken. C Replicate incremental VSS copy every: 1 hour  4 hour(s)
	< Previous Next > Finish Cancel

Select latest recovery point and click on Next

### Reason:

This option is based on customer requirement and disk space. We are choosing only one recovery point as per customer requirement and considering disk sizes

Before You Begin Specify Replica Server Specify Connection Parameters Choose Replication VHDs	Before replication can start, an initial copy of all virtual hard disks that you select transferred to the Replica server. Size of the initial copy of selected virtual hard disks: 79.9 GB Initial Replication Method	ted must be		
Configure Recovery History Choose Initial Replication	<ul> <li>Send initial copy over the network</li> <li>Send initial copy using external media</li> <li>Specify the location to export initial copy.</li> </ul>			
Summary	<ul> <li>Use an existing virtual machine on the Replica server as the initial copy.</li> <li>Choose this option if you have restored a copy of this virtual machine on The restored virtual machine will be used as the initial copy.</li> </ul>	Browse		
	Schedule Initial Replication    Start replication immediately  Start replication on:  4/17/2016  *  8:00 AM  *			

Note: Choose the external HDD path, create a folder and map the same in above screenshot

### Reason:

Replication over network is not recommended as it chokes the bandwidth and to reduce the bandwidth consumption, we are initially exporting the VM to external disk and this disk will be shifted to DR site to import the VM replica at replica site , so that only difference of changes will be replicated over network.

Before You Begin Specify Replica Server Specify Connection	You have successfully completed the Enable Replication wizard. You are about to enable replication fr "Mobility" with the following settings: Description:				
Parameters Choose Replication VHDs Configure Recovery History Choose Initial Replication Method Summary	Replica server: Replica server port: Compress data: Authentication type: VHDs not selected for replication: Store additional recovery points: Initial replication method: Location to export initial copy:	REPLBKR.TFO.LOCAL 80 No Kerberos authentication None No Using external media F: Rep-17-04-2016			
	To enable replication and close the	wizard, dick Finish.			

## Check the configuration and click on FINISH

Before You Begin Specify Replica Server Specify Connection	You have successfully completed the Enable Replication wizard. You are about to enable replication for "Mobility" with the following settings: Description:				
arameters	Replica server:	EPLBKR, TFO.LOCAL			
onfinura Decovary History	Replica server port:	80			
Configure Recovery History Choose Initial Replication Method	Enabling replication				
ummary					
	Location to export initial co	py: F:W P:p-17-04-2016			
		5			
	To enable replication and dos	se the wizard, dick Finish.			

Below tasks will be done during initial replication stage -Verification step only

	3.000			. 141-1 A	A summer	
	Raving	03.	-4296 MB	7.12.12.25	Sending Initial Replica	
	Flanning	15.	0132 MB	7.12.21.25		
	Berring	6%	32/58 MB	7.12.26.23		
	Flanning	\$%.	8192 MB	6.18.25.35		
	Bereg	05	4096 MB	7.12.22.34		
and the second se	Running	15.	24576 MB	7.12.26.19		
	Purring	15	0152 MB	7.12.26.10		
	Ranning	44	16304 MB	7.12.26.13		
and in case of the local division of the loc	Barreng	\$5.	BYN2 MB	7.12.22.05		
Contraction of the local division of the loc	Parrieg	0%	4006 MB	7.12 22:04		
						10

Computer + SAN BOOT-OS (C:) + ClusterStorage + Volume + New Parts \* ~ Name Date modified Type Size Snapshots 4/17/2016 6:36 AM File folder ル Virtual Machines 4/13/2016 6:58 PM File folder Ca MOBILE Hard Disk Image F... 83,785,380 ... \$ 4/17/2016 6:36 AM MOBULEY OF 4/17/2016 6:42 AM AVHD File 346,960 KB avhd 4/17/2016 6:40 AM HRL File Mob 8,196 KB hri

### At Replica Site

A Hardware	🔋 Virtual Hard Disk Properties 🗖 🗖
<ul> <li>Hardware</li> <li>Add Hardware</li> <li>BIOS Boot from CD</li> <li>Memory 4096 MB</li> <li>Processor 1 Virtual processor</li> <li>IDE Controller 0</li> <li>Hard Drive</li> </ul>	General  General  Format: VHD  Type: Dynamically expanding virtual hard disk  Location: C:\ClusterStorage\Volume5\V
IDE Controller 1     DVD Drive     None     SCSI Controller	File Name: Current File Size: 168 KB Maximum Disk Size: 80 G8
Network Adapter     None     COM 1     None     COM 2     None	Close If the physical hard disk you want to use is not listed, make sure that the disk is offline. Use Disk Management on the physical computer to manage physical hard disks.
Diskette Drive	To remain the virtual band debuilder Demons. This disconnects the deb but does not

Name	State	CPU Usage	Assigned	Uptime 15	tatus	Replication_	
	Renne	63	4006168	71538-22 5	ording Initial Flaglant (NTV)	Normal	
	Running	15	8192 M0	7.12.47.18		Not Applicable	
	Running	01	32768 MB	7.13:52:11		Not Applicable	
a the second second	Running	0%	8192 MB	5.19.45.28		Not Applicable	
	Running	03.	4096 MB	7.13.49.22		Not Applicable	
Conception to	Running	3 %	24576 MB	7 13 52 08		Not Applicable	
	Running	02	8192 MB	7.1351.59		Not Applicable	
	Running	0%	16384 MB	7 13 52 02		Not Applicable	
1 Internet	Fluming	0%	8192 MD	7.1347.54		Not Applicable	
I YONY	Running	62	4096 MB	7134852		Not Applicable	
Snapshots							۲
B 50 mm Intel Repice - 14	/17/2016 - 6:36:28 AM)						

### Explanation on above screenshots:

- > Initial replication started immediately at Primary Site and base VM will be created at DR site.
- Replica VM can be created on any other node in cluster, <u>Move that VM to REPILCA HOST as</u> <u>external disk will be connected to this server only</u>
- At primary site, snapshots will be created during initial replica and deleted after initial replication finished

After reaching 100 % of Sending Initial replica it will reach to the stage of <mark>"Replicating changes"</mark> <mark>(</mark>Screenshot) –<u>Verification step only</u>



After Replicating Change reaches to 100 %, snapshots will be deleted automatically.

### Note:

If VM is accessed by 24 \*7, then "**Replicating Changes**" may not go to 100 % stage so you can disconnect external drive if it taking very longer time than expected

lame	State	LPU Usage	Assigned	uptime	status	nepsication	
	Running	0.%	4096 MB	7.13.45.48	Replicating changes (98%)	Normal	
and an and the second s	Running	1%	8192 MB	7.13:54:39		Not Applicable	
	Running	0 %	32768 MB	7.13:59:33		Not Applicable	
STATE SURFACE	Running	1 %	8192 MB	6.19:53:50		Not Applicable	
SHEET:	Running	0 %	4096 MB	7.13.55:44		Not Applicable	
And And	Running	1 %	24576 MB	7.13.59.30		Not Applicable	
PRIMEOUC	Running	1 %	8192 MB	7.13:59:21		Not Applicable	
STREET .	Running	0 %	16384 MB	7.13:59:24		Not Applicable	
	Running	0 %	8192 MB	7.13:55:16		Not Applicable	
	Running	0 %	4096 MB	7.13:56:14		Not Applicable	
napshots							6

Folder at primary Site, will be as below – Verification step only

### Note:

- HRL size will be varies from VM to VM based disk read/writes.
- HRL Size should not grow beyond 50% of total size of VHD size as there is chance of replication failures

	15 (Ci) • ChusterStorage • Volume				v O Search Minkel
Pilarren		Date modified	Type	Size	
Shapshots Virtual Machines MORCON		4/13/2016 0.36 AMA 4/13/2016 0.36 PM 4/13/2016 0.16 PM	Film Notzler Film Polyler Hand Ditk Image Film	81.765.587	
Mab	M HAND	4/17/2016 8:10 244	Avera Pine	6,754 82	

You can view replication health -> Right click VM-> Replication -> View Replication Health

Replication State:	Initial replication in progress
Replication Type:	Primary
Current Primary Server:	EN LA CONTRACTOR
Current Replica Server:	A CONTRACTOR OF THE OWNER OWNE
Replication Health:	Nomal
Statistics for past 1 Hour 37 Minutes	
From time:	4/17/2016 6:36:26 AM
To time:	4/17/2016 8:13:50 AM
Average size:	257 MB
Maximum size:	257 MB
Average latency:	0.02:21
Errors encountered:	0
Successful replication cycles:	1 out of 1 (100%)
Pending replication	
Size of data yet to be replicated:	16 MB
Last synchronized at:	4/17/2016 8:09:47 AM (Less than 5 minutes ago)
Refresh Reset Statistics	Save As Close

At replica Site, Snapshots will be created at UK site after initial replica export completed - <u>Verification</u> <u>Step only</u>

	JUBIE .	- Chine Provide	Passynta merry	- wighter and	-110-111	
Netter .	01					
	Runing	0.5	8192 MB	15:15:41		
	Running	0%	#192 MB	15:25:56		
And Designed	Running	0.5	\$192 MB	15:37:38		
A DESCRIPTION OF THE OWNER OWNER OF THE OWNER OWNER OF THE OWNER OWNE	Furning	03.	2048 MB	15:41:34		
Courses.	Running	0%	2048 MB	15.42.14		
	Runing	0.5	24576 148	15:49:49		
	Runno	0.5	8192 ME	154953		
	10000000					
napshots						0
THE OWNER CARDING	ALL 49 11 2 . 1100					
A COMPANY OF THE PRESENCE OF	ALTERNA - 8 11 09 Mag					



Initial Replica Import at DR Site

After Disk connected to REPILCA HOST-> Start Import Initial Replica as below

The cost machines				10000	
Name	State	CPU Usage Acogned M	lemory "Optime"	Status	
	. 01		- CO - CO -		
State 1	1999				1
1000	Of	Connect			
120		Settings			
		Start			
	CH .	Snapshot			
Section 2	Running	Revent	3.16.22.52		
		Moye_			
		Export	Export		
		Rename			
		Delate_			
		Replication +	Import Initial Replica		
		Help	Pause Replication	19	10
Snapshots			View Replication Health	h	۲
In The Motor and Replica	- (4/17/2016 - 12:15:03 PM)		Remove Replication		



o<del>blig -</del> Initial Replica - (4/17/2016 - 12:15:03 PM) Now

Provide the path external HDD where VM exported ->Click on Complete Initial Replication

	import initial replication		4
Provide the location when	Import Replication	are located.	
F VVM-Replica Intial Expo		F24-2587 Browse	
	Cance		
	Corper rea	[Peperature] []	

After Import replication finished, snapshots will be deleted automatically – Verification Step Only

a second	58 C	
Mobility	Off	Merge in Progress (3%)
	08	
-		

After Import finishes -> Check at Primary Site replication Health as sometime replication will go in paused state -> in this stage, Select VM ->Replication -> Resume replication. It start replicating changes if it went to paused state.

Virtual Machines						
Name	State	CPU Usage	Assigned	Uptime	Status	Replication Plealth
Matem	Barring	015	4056 ME	101410528	Reaking charges (00%)	Nerra
a suggestion	Runnino	0%	4096 MB	10.14:15:27	and the second se	Nomal

To View Replication Health at Primary and replica sites from GUI

Go to VM-> Replication ->View Replication Health

Replication State:		Replication enabled	
Replication Type:		Primary	
Current Primary Server:			
Current Replica Server:			
Replication Health:	0	Normal	
Statistics for past 12 Hours 10 Minutes			
From time:		4/19/2016 9:00:01 PM	
To time:		4/20/2016 9:10:56 AM	
Average size:		22 MB	
Maximum size:		871 MB	
Average latency:		0:00:31	
Errors encountered:		13 <u>View events</u>	
Successful replication cycles:		137 out of 147 (93%)	
Pending replication			
Size of data yet to be replicated:		4 KB	
Last synchronized at:		4/20/2016 9:10:23 AM (Less than 5 minutes ago)	



To View Replication Health at Primary and replica sites from PowerShell

PS C:\User	s\ Get-VMReplin	cation						
Name	State ReadyForInitialReplication Replicating	Health Warning Normal	Mode Primary Primary	PrimaryServer	ReplicaServer	ReplicaPor 80 80	t AuthType Kerberos Kerberos	
P5 C:\User	Replicating s\tfo_wintell2> Measure-VMR	Normal	Primary on		-REPLBKR	80	Kerberos	
Name	State	Health	LReplTin	ne	PReplSize(M)	AvgLatency	AvgRep1Size(M)	SuccRep1Coun t
	ReadyForInitialReplication Replicating Replicating	Warning Normal Warning	7/12/201	L6 3:02:36 PM L6 11:09:30 AM	342,024.49 0.0039 47,652.48	00:00:11 00:04:19	0.00 8.71 166.21	0 of 0 217 of 217 130 of 216

## Event Logs - Verification Step only

Event ID:32074, when replication enabled at Primary site

Event id 33602, Initial Replication was successfully exported to external drive

- Set				T
() Information	4/17/2016 6:36:26 AM	Hyper-V-VMMS	32074 None	
Error.	4/17/2016 5:55:26 AM	Hyper-V-VMMS	16300 None	
Error	4/17/2016 5:55:26 AM	Hyper-V-VMMS	16300 None	~
<		818		>
Event 32074, Hyper-V-VN	/IMS			×
General Details				
Hyper-V successfully E	enabled replication for primary virtual m	achine 'l' ''' , 💉 👫		

Hyper-V-VMMS	32558	None	
ш			>
			×
04-2016\		) for virt	ual
ыстря "			
	Hyper-V-VMMS	Hyper-V-VMMS 32558	Hyper-V-VMMS 32558 None III 04-2016\l

Information	4/17/2016 8:09:47 AM	Hyper-V-VMMS	19070	None	
<ol> <li>Information</li> </ol>	4/17/2016 8:09:47 AM	Hyper-V-VMMS	19090	None	
<ol> <li>Information</li> </ol>	4/17/2016 8:09:46 AM	Hyper-V-VMMS	19070	None	
<ol> <li>Information</li> </ol>	4/17/2016 8:09:46 AM	Hyper-V-VMMS	33602	None	
Error	4/17/2016 7:55:28 AM	Hyper-V-VMMS	32558	None	
<		III.			>
General Details	11113				
hackaroun	d dick marge has been started (Virtual m	achine ID Received as a second	(C)		_
backgroun	u usk merge nas been starten. (virtuarin				

4/17/2016 8:10:15 AM	Hyper-V-VMMS	19080	None		
4/17/2016 8:09:47 AM	Hyper-V-VMMS	19070	None		
4/17/2016 8:09:47 AM	Hyper-V-VMMS	19090	None		
4/17/2016 8:09:46 AM	Hyper-V-VMMS	19070	None		
4/17/2016 8:09:46 AM	Hyper-V-VMMS	33602	None		¥
	ш			× 5	
MS					ĸ
					Т
dish many has been finished successfy	dby O/intual machine ID Providence	ATTAC TOAT DEPEN	(0.000000)		
disk merge has been finished successful	iny. (vintual machine iD		(		11
	4/17/2016 8:10:15 AM 4/17/2016 8:09:47 AM 4/17/2016 8:09:47 AM 4/17/2016 8:09:46 AM 4/17/2016 8:09:46 AM MS	4/17/2016 8:09:47 AM         Hyper-V-VMMS           4/17/2016 8:09:47 AM         Hyper-V-VMMS           4/17/2016 8:09:47 AM         Hyper-V-VMMS           4/17/2016 8:09:46 AM         Hyper-V-VMMS           4/17/2016 8:09:46 AM         Hyper-V-VMMS           4/17/2016 8:09:46 AM         Hyper-V-VMMS           MS         III	4/17/2016 8:10:15 AM         Hyper-V-VMMS         19080           4/17/2016 8:09:47 AM         Hyper-V-VMMS         19070           4/17/2016 8:09:47 AM         Hyper-V-VMMS         19090           4/17/2016 8:09:46 AM         Hyper-V-VMMS         19070           4/17/2016 8:09:46 AM         Hyper-V-VMMS         33602	4/17/2016 8:10:15 AM         Hyper-V-VMMS         19080         None           4/17/2016 8:09:47 AM         Hyper-V-VMMS         19070         None           4/17/2016 8:09:47 AM         Hyper-V-VMMS         19090         None           4/17/2016 8:09:46 AM         Hyper-V-VMMS         19070         None           4/17/2016 8:09:46 AM         Hyper-V-VMMS         19070         None           4/17/2016 8:09:46 AM         Hyper-V-VMMS         33602         None	4/17/2016 8:10:15 AM         Hyper-V-VMMS         19080         None           4/17/2016 8:09:47 AM         Hyper-V-VMMS         19070         None           4/17/2016 8:09:47 AM         Hyper-V-VMMS         19090         None           4/17/2016 8:09:47 AM         Hyper-V-VMMS         19090         None           4/17/2016 8:09:46 AM         Hyper-V-VMMS         19070         None           4/17/2016 8:09:46 AM         Hyper-V-VMMS         33602         None

## Event Logs after Initial Import Completion

Event id 32079 - Initial replication success event id after initial import in replica server

-	2.2	4.		
(Information	4/20/2016 6:26:30 AM	Hyper-V-VMMS	32079 None	-
<li>Information</li>	4/20/2016 6:25:56 AM	Hyper-V-VMMS	30007 None	
<li>Information</li>	4/20/2016 6:20:55 AM	Hyper-V-VMMS	30007 None	
Information	4/20/2016 6:15:53 AM	Hyper-V-VMMS	30007 None	
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Event 32079, Hyper-V-VMMS	Die .	1/20/2016 C 27 CO AAA		40000	- 44
	Event 32079, Hyp	er-V-VMMS			

Resynch Initiate event 32325 Resynch Success event 29244,29242 Resynch Fail Event 32572,29270 Hyper-V snapshot deletion fail event 32589

### How to Remove Replica for a VM in Cluster

Removing replica is simple method, Go the VM->Right Click ->Replication->Remove Replication from any server

Remove Replication in both sites and delete replica files (HRL) if any..

### Note:

Ideally, replica removing from Primary server should automatically remove other side also, in windows 2012, you may see an issue in reflecting this, so if other side replication is not removed automatically then remove replication manually on both sides.

### Knowledge base References

- https://blogs.technet.microsoft.com/virtualization/2012/06/15/interpreting-replication-healthpart-1/
- http://blogs.technet.com/b/virtualization/archive/2012/06/21/interpreting-replication-healthpart-2.aspx
- https://blogs.technet.microsoft.com/virtualization/2013/06/28/save-network-bandwidth-byusing-out-of-band-initial-replication-method-in-hyper-v-replica/
- https://blogs.technet.microsoft.com/virtualization/2013/08/27/using-an-existing-vm-for-initialreplication-in-hyper-v-replica/
- https://blogs.technet.microsoft.com/virtualization/2014/02/02/hyper-v-replica-debugging-whyare-very-large-log-files-generated/