IBM Tivoli Storage FlashCopy® Manager for VMware® 3.2.0 Installation Planning Sheet

The purpose of this document is to provide an overview of considerations that should be done before performing the FlashCopy Manager installation and configuration procedures.

Before going through this document, the Pre-Installation Checklist should be worked through.

What to read?

The intention of this document is to provide the relevant information for an initial FlashCopy Manager installation and configuration, in particular listing the most important parameters that must be provided for an initial configuration. The set of parameters depends on the selected storage types. Hence, the document is split into sections each providing the right set of parameters applicable to your specific environment.

For VMware specific settings refer to the **VMware** section.

For DS, SVC, and Storwize V7000 storage systems, refer to section **DS8000 / SVC / Storwize V7000**.

For IBM XIV storage systems, refer to section **XIV**.

For IBM N Series and NetApp storage systems, refer to section **IBM N Series and NetApp**

VMware

The following parameters queried by the setup wizard should be considered. For parameters not listed here, the default value can be accepted. If there is an entry in the "Value" column, this means that the entry is the recommended value for the parameter.

Name	Description	Value
ACS_REPOSITORY	A non-existing directory. Should be included in the default file system backup process.	
VCENTER_SERVER	The hostame or IP address of the vCenter(TM) server managing the vSphere(TM) environment protected by this installation.	
VCENTER_SERVER_USER	This parameter specifies the username needed to log in to the vCenter(TM) server.	
AUXILIARY_ESX_HOST	The auxiliary ESX host is used to offload backups to IBM® Tivoli Storage Manager for Virtual Environments and for mount operations as part of a restore operation. Specify a fully qualified host name.	
VM_BACKUP_MODE	This parameter specifies how the virtual machines selected for backup are handled prior to the actual hardware snapshot of the datastore. Please see the documentation for further details.	SNAPSHOT_EXCL_MEM
HOST_NAME_MAPPING	This parameter specifies how an auxiliary ESX host in the vSphere environment is mapped to the host name that is used for this server on the storage subsystem. Multiple auxiliary ESX hosts can be mapped to the same host name by using a cluster that is defined on a storage subsystem, for example XIV®, that covers more than one ESX host. In this case the parameter value specified is the name of this cluster. If an auxiliary ESX host does not have a mapping that is specified by this parameter,Tivoli Storage FlashCopy Manager for VMware uses the specified AUXILIARY_ESX_HOST parameter in the vSphere environment and the storage subsystem. If the AUXILIARY_ESX_HOST contains a period, Tivoli Storage FlashCopy Manager for VMware uses the first part of the fully qualified host name. This parameter can be specified multiple times within this section of the profile. The parameter value format is <Auxiliary ESX host name> : <storage subsystem host name> for instance HOST_NAME_MAPPING esxserv1.domain.com:esxserv1_xivname where esxserv1.domain.com is the full qualified ESX server host name as known in the vSphere environment and esxserv1_xivname the name of this host as defined on the XIV storage subsystem. **Note:** For DS8K use PREASSIGNED_VOLUMES as <storage subsystem host name>. The target set	

	volumes need to be statically mapped to the auxiliary ESX server.	
	For SVC use PREASSIGNED_VOLUMES as <storage subsystem host name> in case you use static volume mapping to the auxiliary ESX server.	
	For NFS datastores on IBM System Storage N series and NetApp storage systems the 'storage subsystem host name' is the IP address of the VMkernel interface of the ESX host.	

DS8000 / SVC / Storwize V7000

The storage device related parameters listed here should be checked with the storage admin. For parameters not listed here the default value can be accepted. If there is an entry in the "Value" column, this means that the entry is the recommended value for the parameter.

Name	Description	Value
COPYSERVICES_ HARDWARE_TYPE	**DS8000** (For IBM DS8000 series) **SVC** (For IBM SAN Volume Controller and IBM Storwize V7000)	
COPYSERVICES_ PRIMARY_ SERVERNAME	Defines the TCP/IP address or hostname of the host running the CIM Agent for DS Open API (which can manage the primary and secondary Copy Services servers of the DS8000 cluster), the SVC master console, or embedded CIM Agent.	
COPYSERVICES_ USERNAME	cim user - to connect to CIM Agent for DS Open API svc user - to connect to the primary copyservices server	
COPYSERVICES_ COMMPROTOCOL	Protocol to be used for communication with the CIM Agent. **HTTP** Communication in non-secure mode **HTTPS** Communication in secure mode	
COPYSERVICES_ REMOTE	determines if the backup is taken at the local or the remote site when using Metro or Global Mirror on SVC, Storwize or V7000. The options are YES and NO. The default option is set to NO.	
FLASHCOPY_TYPE	**COPY** **INCR** **NOCOPY** Once flashcopy relations of a certain kind (COPY, INCR, NOCOPY) are established, this value cannot be changed without performing a withdrawal of the previous relation. Therefore, this parameter should be carefully considered using the detailed information in the manual.	

Name	Description	Value
TARGET_SETS	Specify the target volumes to be used in the FlashCopy operation using one of these values: VOLUMES_FILE \<list of target set names\> (see also TARGET_NAMING)	
VOLUMES_FILE	Only applicable if TARGET_SETS is set to VOLUMES_FILE. Specify the name of the target volumes file (.fct).	
TARGET_NAMING	Only applicable if TARGET_SETS lists the target set names. Using this parameter, target volume names can be derived from source volume names according to a certain naming pattern specified by this parameter: \<string with wildcards %SOURCE and %TARGETSET\> For more details please refer to the User's Manual.	

XIV

The storage device related parameters listed here should be checked with the storage admin. For parameters not listed here the default value can be accepted. If there is an entry in the "Value" column, this means that the entry is the recommended value for the parameter.

Name	Description	Value
COPYSERVICES_ HARDWARE_TYPE	IBM XIV® Storage System	XIV
COPYSERVICES_ SERVERNAME	Specify the hostname of the IBM XIV® Storage System.	
COPYSERVICES_ USERNAME	Username to log in to the XIV® system.	
COPYSERVICES_ REMOTE	determines if the backup is taken at the local or the remote site when using XIV Remote Mirroring. The options are YES and NO. The default option is set to NO.	

IBM N Series and NetApp

The storage device related parameters listed here should be checked with the storage administrator. For parameters not listed here the default value can be accepted. If there is an entry in the "Value" column, this means that the entry is the recommended value for the parameter.

Name	Description	Value
COPYSERVICES_ HARDWARE_TYPE	IBM N Series and NetApp	SAN_NSERIES or NAS_NSERIES
COPYSERVICES_ SERVERNAME	Specify the TCP/IP hostname of the storage system.	
COPYSERVICES_ USERNAME	Username to log in to the storage system.	
COPYSERVICES_ COMMPROTOCOL	Protocol to be used for communication with the storage system. **HTTP** Communication in non-secure mode **HTTPS** Communication in secure mode **Note:** To access a vfiler the HTTPS protocol can not be used.	

Passwords

The setup wizard will prompt for the following passwords:

- ACS daemon:
  Password the client uses for connecting to the ACS management daemon. This can be any string, the password will be encrypted and saved in a file. The password will never have to be entered again since it is read from the password file by the clients and the ACS daemon.

- vCenter server:
  Password to connect to the vCenter server.

- Device sections:
  One password for each individual storage system / CIM agent.

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