

HP Cloud Service Automation Integration Pack

HP Cloud Service Automation

Software Version 4.20

Integration Pack

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Sequential Component types

Infrastructure Service

Contains a collection of infrastructure components that are needed in a service design.

Table 1. Input properties for Infrastructure Service

Property name	Property display name	Property type
templateReference	Template Reference	String

Load Balancing Pool

Describes the membership of servers in a pool that serves a load-balanced software application service.

Table 2. Input properties for Load Balancing Pool

Property name	Property display name	Property type
poolName	Pool Name	String
protocol	Protocol	String
virtualIPAddress	Virtual IP Address	String
virtualPort	Virtual Port	Integer

Network Connection

Describes the relationship of a server interface to a virtual network.

Table 3. Input properties for Network Connection

Property name	Property display name	Property type
interfaceName	Interface Name	String
network	Network	String

Policy Enforcement Point

Describes the implementation of access control policies for a virtual network.

Table 4. Input properties for Policy Enforcement Point

Property name	Property display name	Property type
ruleName	Policy Rule Name	String
Order	Policy Order	Integer
Source	Policy Source	String
destination	Policy Destination	String
filterExpression	Filter Expression	String

Server

A virtual or physical server that is provisioned by HP CSA. Provides specific provisioning attributes for individual servers (can optionally be marked as a pattern when this service component is used in a service design.)

Table 5. Input properties for Server

Property name	Property display name	Property type	Measurable	Units
Memory	Memory	Integer	Yes	MB
nCPU	Number of CPU Cores	Integer	Yes	CPU
osType	Type of OS image	String		
templateReference	Template Reference	String		
ipAddress	Management IP Address	String		
macAddress	Management MAC Address	String		
hostname	Host Name	String		
domainName	Domain Name	String		
powerState	Power State	String		
Disk	Disk	Integer	Yes	GB
serverName	Server Name	String		

Server Group

A container of identically configured servers. Contains a single server (marked as a pattern in the service design) that describes the shared characteristics of all servers in the server group.

Table 6. Input properties for Server Group

Property name	Property display name	Property type
serverCount	Number of Servers	Integer
maxServerCount	Maximum Number of Servers	Integer
minServerCount	Minimum Number of Servers	Integer

Software Application Service

Represents a complex application architecture. Contains one or more software application tier service components.

Table 7. Input properties for Software Application Service

Property name	Property display name	Property type
templateReference	Template Reference	String
applicationName	Application Name	String
applicationRelease	Application Release	String

Property name	Property display name	Property type
applicationVersion	Application Version	String

Software Application Tier

Describes a type of software, or a collection of software, that is applied to all servers within a server group.

Table 8. Input properties for Software Application Tier

Property name	Property display name	Property type
templateReference	Template Reference	String
applicationTierName	Application Tier Name	String

Software Component

Describes software deployed on an individual server.

Table 9. Input properties for Software Component

Property name	Property display name	Property type
productName	Product Name	String
productVendor	Product Vendor	String
productVersion	Product Version	String

Storage Volume

Describes a single accessible storage area with a single file system.

Table 10. Input properties for Storage Volume

Property name	Property display name	Property type	Measurable	Units
volumeName	Storage Volume Name	String		
volumeSize	Storage Volume Size	Integer	Yes	GB
raidType	RAID Type	String		
volumeType	Storage Volume Type	String		

Virtual Network

Models a network infrastructure to which a network connection can be associated.

Table 11. Input properties for Virtual Network

Property name	Property display name	Property type
vlanTag	VLAN Tag	String
vlanId	Vlan Id	Integer
vlanIPSubnet	VLAN IP Subnet	String
vlanSubnetMask	VLAN Subnet Mask	String
dhcpRange	DHCP Range	String

Property name	Property display name	Property type
dhcpEnabled	DHCP Enabled Or Not	Boolean

Topology Component types

HP CloudOS Components

Server Group

Represents a server group component.

Table 12. Input properties for server group

Property name	Description
Name	Name of the server group.
Instance Name Prefix	Prefix for the Server name.
Minimum Instances	Minimum number of servers to create.
Maximum Instances	Maximum number of servers.
Image	Image of the server.
Machine Flavor	Configuration of the server, such as CPU, memory, and disk.
Key Name	Name of the SSH server.
Pre-create Callout	Flow ID of an OO workflow executed before the creation of a component.
Post-create Callout	Flow ID of an OO workflow executed after the creation of a component.

Network Segment

Represents a Network component on the Provider.

Table 13. Input properties for Network Segment

Property name	Description
Name	Name of the network component.
Type	Type of the network segment.
Network	Network configured on the provider.
Subnet	Network subnet.
Subnet Name	Subnet name.
IP Version	IP4 or IP6.
Mask Size	Mask size.
Enable DHCP	Option to enable/disable DHCP.
DNS Server	Space separated DNS server IPs or names.
Disable Gateway	Option to disable / enable gateway.

Volume Group

Represents a Volume Group component on the Provider.

Table 14. Input properties for Volume Group

Property name	Description
Name	Name of the volume group.
Volume	Select the choice to create/use existing Volume.
Instance Name	Prefix Name for volume group.
Size	Volume size in GB's.
Volume Reference	

Delegated Topology Components

See the *Application Deployment on Realized Topology Instance using Sequenced Design* white paper for more details.

Amazon Web Services (AWS) Components

Amazon Server

Represents a server on the AWS provider.

Table 15. Input properties for Amazon Server

Property name	Description
Name	Name of the Amazon server.
amild	Amazon Machine Image (AMI) Id. An AMI provides the information required to launch an instance, which is a virtual server in the cloud. Amazon by default provides many 32-bit and 64-bit AMIs.
availabilityZone	Amazon hosts on multiple locations world-wide called as regions. Each region has multiple locations called as availability zone. The AWS instances will be provisioned in the zones specified.
instanceNamePrefix	The prefix name for the instance to be provisioned.
instanceType	The type of the instance. If the <amild> specifies a 64-bit image, the valid values for this input are: m1.large, m1.xlarge, c1.xlarge. If the <amild> specifies a 32-bit image, this input can be empty (a small instance is created by default), or given one of the following values: m1.small, c1.medium.
keyName	Amazon EC2 uses public key cryptography to encrypt and decrypt login information. To log in to your instance, you must create a key pair and specify the name of the key pair when you launch the instance. Launching public images without a key pair ID leaves them inaccessible.
username	Login name used to deploy applications on the newly created instance via Chef.

Property name	Description
password	Password used to login to the instance. The privateKey property should be left blank if this property is used.
privateKey	If the instance allows key-pair based authentication to log in, then the complete private key content must be copied.
SecurityGroupIds	A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. You can specify a comma separated list of security group IDs that your instances will be part of. If empty, the default group is used.
subnetId	The ID of the subnet from which the eth0 network interface of the instance will get an IP address allocated. If not specified, AWS allocates an IP address from the default subnet in the specified zone.

Amazon Volume

Represents a volume on the AWS provider.

Table 16. Input properties for Amazon Volume

Property name	Description
Name	The name of Amazon Volume component.
deviceName	The name of the device (for example, /dev/sdh or xvdh).
availabilityZone	The available zone in which to create the new volume.
volumeSize	The size of the volume in GB's. The valid value range for volume size is 1-1024.

Amazon Network Interface

Represents a network interface on the AWS provider.

Table 17. Input properties for Amazon Network Interface

Property name	Description
Name	Name of the Amazon network interface component.
deviceIndex	The index of the device for the network interface attachment. By default in the EC2-VPC platform the server has one network interface attached at index 0. Any additional network interface should have a value other than 0. If the design has more than one Network Interface attached to the server, then the deviceIndex value of each network interface should be different from each other.
interfaceDescription	Description of the network interface.
SecurityGroupIds	The list of security group IDs for the network interface.
subnetId	The ID of the subnet to associate with the network interface. When this network interface is connected to the server, this ID should be one of the subnets that is available in the same zone as the server.

Docker Components

Docker File

Builds a Docker image from the specified Dockerfile and executes that image within a Docker container.

Table 18. Input properties for the Docker file

Property name	Description
Name	Name of the Docker file.
dockerBuildArgs	The arguments to be used while building the Docker image from a Docker file.
dockerFileInput	Content from a Docker file with no dependencies on external resources such as external files.
dockerRunArgs	The arguments to be provided for creating a Docker container from a Docker image.
port	The SSH port to connect to the target host.
timeOut	The time out in milliseconds to connect to the target system via SSH.

Docker file from SCM

Builds a Docker image from the specified source code control archive file and executes that image within a Docker container.

Table 19. Input properties for the Docker file from SCM

Property name	Description
Name	Name of the Docker file from SCM.
dockerBuildArgs	The arguments to be used while building the Docker image from a Docker file.
dockerRunArgs	The arguments to be provided for creating a Docker container from a Docker image.
port	The SSH port to connect to the target host.
sourceControlPassword	The password of the SCM repository in which the Docker file resides.
sourceControlUrl	The URL of the SCM repository in which the Docker file resides.
sourceControlUser	The user of the SCM repository in which the Docker file resides.
timeOut	The time out in milliseconds to connect to the target system via SSH.

Docker Image

Executes the specified launch command within a Docker container based on an image from a Docker public or private registry.

Table 20. Input properties for Docker image

Property name	Description
Name	Name of the Docker image.

dockerArgs	The arguments to be used when creating the container image from a Docker base image.
dockerEmail	The email of the user in Docker registry.
dockerPassword	The password of the user in the Docker registry.
dockerUsername	The username of the user in the Docker registry.
imageName	The Docker image name from which a container instance will be created.
launchCommand	Any command to run within a Docker container. Most times this can be left blank.
port	The SSH port to connect to the target host.
timeOut	The time out in milliseconds to connect to the target system via SSH.

Existing Server

Represents an Existing Server component.

Table 21. Input properties for Existing Server

Property name	Description
Name	Name of the Docker image.
HOST-FQDN	The fully-qualified domain name of the existing server.
IPADDRESS	The IP address of the existing server.
PASSWORD	The password used to log in to the existing server.
SSHPORT	The SSH port to connect to the existing server.
PRIVATEKEY	The AWS private key if connecting to an AWS instance.
USERNAME	The login name used to log in to the existing server.

Resource offerings

The following resource offerings ship with HP CSA 4.20. For descriptions of the actions, see Subscriber actions.

For descriptions of the property values, see Property values.

MOE_COMPUTE_3.20

Table 22. Resource offering details

Provider	HP Matrix Operating Environment
Description	Provisions simple compute server using MOE.
Subscriber actions	<ul style="list-style-type: none"> Power Off Service Power On Service
Properties	None

MOE_COMPUTE_ADM_3.20

Table 23. Resource offering details

Provider	HP Matrix Operating Environment
Description	Provisions simple compute server using MOE from a Software application service component.
Subscriber actions	<ul style="list-style-type: none"> • Power Off Service • Power On Service
Properties	None

MOE_COMPUTE_MT_3.20

Table 24. Resource offering details

Provider	HP Matrix Operating Environment
Description	Provisions a simple compute server using MOE 7.0 or higher with multi-tenancy support.
Subscriber actions	None
Properties	None

MOE_COMPUTE_SOAPV4_3.20

Table 25. Resource offering details

Provider	HP Matrix Operating Environment
Description	Provisions a simple compute server using MOE with SOAP V4.
Subscriber actions	<ul style="list-style-type: none"> • Power Off Service • Power On Service • Power Cycle Service
Properties	None

NA_VIRTUAL_NETWORK_3.20

Table 26. Resource offering details

Provider	HP Network Automation
Description	Provisions a VLAN from a network switch using HP Network Automation 9.20 or higher.
Subscriber actions	None
Properties	None

OPENSTACK_HPCS_COMPUTE_3.20

Table 27. Resource offering details

Provider	HP Cloud Services OpenStack
Description	Creates server instances on HP Cloud Services environment.
Subscriber actions	<ul style="list-style-type: none"> • Reboot Server
Properties	None

SA_ADM_3.20

Table 28. Resource offering details

Provider	HP Server Automation
Description	Deploys an application using HP ADM.
Subscriber actions	None
Properties	None

SA_ADM_FLEX_3.20

Table 29. Resource offering details

Provider	HP Server Automation
Description	Adds and removes servers from the HP ADM application tier.
Subscriber actions	<ul style="list-style-type: none"> • Add Server to Tier • Remove Server from Tier
Properties	None

SA_DMA_JBOSS_3.20

Table 30. Resource offering details

Provider	HP Server Automation
Description	Deploys JBOSS using an HP DMA workflow. Resource offering properties are populated with JBOSS workflow parameters.
Subscriber actions	None
Properties	<ul style="list-style-type: none"> • dmaParam1 • dmaParam2 • dmaParam3 • dmaParam4 • dmaParam5 • dmaParam6 • dmaParam7 • dmaParam8 • dmaParam9 • dmaParam10 • dmaWorkflowName

SA_MANAGE_SERVERS_3.20

Table 31. Resource offering details

Provider	HP Server Automation
Description	Deactivates and deletes managed servers from HP SA.
Subscriber actions	None
Properties	None

SA_MOE_ADM_FLEX_3.20

Table 32. Resource offering details

Provider	HP Server Automation
Description	Adds a server using HP MOE and deploys applications on the added server using HP ADM.
Subscriber actions	<ul style="list-style-type: none"> Add Server
Properties	None

SA_NOOP_3.20

Table 33. Resource offering details

Provider	HP Server Automation
Description	Selects a resource provider from a parent component and passes it on to the child component.
Subscriber actions	None
Properties	None

SA_SOFTWARE_POLICIES_3.20

Table 34. Resource offering details

Provider	HP Server Automation
Description	Deploys applications on servers using HP SA software policies.
Subscriber actions	None
Properties	None

SITESCOPE_MODIFY_3.20

Table 35. Resource offering details

Provider	HP SiteScope
Description	Switches the server monitors to the new HP SiteScope template.
Subscriber actions	None
Properties	None

SITESCOPE_SERVER_MONITORING_3.20

Table 36. Resource offering details

Provider	HP SiteScope
Description	Monitors servers using HP SiteScope.
Subscriber actions	None
Properties	None

UCMDB_CONFIG_MANAGEMENT_3.20

Table 37. Resource offering details

Provider	HP Universal CMDB
Description	Creates and manages component configuration details on HP Universal CMDB.
Subscriber actions	None
Properties	None

VCENTER_COMPUTE_3.20

Table 38. Resource offering details

Provider	VMware vCenter
Description	Provisions a simple compute server using VMware vCenter.
Subscriber actions	<ul style="list-style-type: none"> • Stop Server • Start Server • Restart Server • Suspend Server
Properties	None

VCENTER_COMPUTE_DYNAMIC_OPTIONS_3.20

Table 39. Resource offering details

Provider	VMware vCenter
Description	Provisions a simple compute server using VMware vCenter. The resource offering property should be populated with the VM template names, which are later used to dynamically populate the subscriber options.
Subscriber actions	<ul style="list-style-type: none"> • Stop Server • Start Server • Restart Server • Suspend Server
Properties	TEMPLATEREFERENCE

VCENTER_COMPUTE_FAILURE_HANDLING_3.20

Table 40. Resource offering details

Provider	VMware vCenter
Description	Provisions a simple compute server using VMware vCenter. If the deployment fails, it cleans up the provisioned vCenter resource.
Subscriber actions	<ul style="list-style-type: none"> • Stop Server • Start Server • Suspend Server • Restart Server
Properties	None

VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20

Table 41. Resource offering details

Provider	VMware vCenter
Description	Adds and removes CPU or memory from all servers in the server group.
Subscriber actions	<ul style="list-style-type: none"> Flex CPU Flex Memory
Properties	None

VCENTER_COMPUTE_MODIFY_SERVER_RESOURCES_3.20

Table 42. Resource offering details

Provider	VMware vCenter
Description	Adds and removes CPU or memory from all servers in the server group.
Subscriber actions	<ul style="list-style-type: none"> Flex CPU Flex Memory
Properties	None

Provider templates

These templates can be found in the location <CSA Install Path>\CSAKit-3.1\Lib on the HP CSA instance.

Table 43. Provider templates required for content that ships with HP CSA

Provider	Template	Description
VMware vCenter	VM template	The template used for cloning the VM in the vCenter server from HP CSA. For blueprints using HP ADM and HP DMA, the template creation must have gone through the HP SA agent installation and agent sanitation. See the <i>HP Cloud Service Automation Configuration Guide</i> for more information. The name of the template is configured in the <TEMPLATEREFERENCE> property of the service design.
HP Matrix Operating Environment	MOE_SCL_TEMPLATE	The MOE template used to create the MOE service. The name of the template is configured in the <TEMPLATENAME> property of the service design.
HP Matrix Operating Environment	ADM_WEB_DB_TIER_TEMPLATE	The MOE template used to create a two-tier MOE service. The name of the template is configured in the <TEMPLATENAME> property of the service design.
HP Matrix Operating Environment	MOE_71_SCL_TEMPLATE	The MOE template used to create service on MOE 7.1. The name of the template is configured in the <TEMPLATENAME> property of the service design.

HP SiteScope	CSA templates	The template used by the default HP SiteScope Deploy Monitor workflow. This template must be imported into the HP SiteScope server and the credential preferences should be set. The name of the template is configured in the <SITESCOPETEMPLATE> property of the service design.
HP SiteScope	CSA templates Silver	The template used by the default SiteScope Modify Monitor workflow for the silver option. This template must be imported into the HP SiteScope server and the credential preferences should be set. The name of the template is configured in the <SITESCOPETEMPLATE> property of the service design.
HP SiteScope	CSA templates Gold	This is the template used by the default SiteScope Modify Monitor workflow for the gold option. This template must be imported into the HP SiteScope server and the credential preferences should be set. The name of the template is configured in the <SITESCOPETEMPLATE> property of the service design.
HP Network Automation	HPN Virtual Network	This is the command script used by HP Network Automation 9.20 or higher. This internally imports two command scripts, HPN Create VLAN and HPN Delete VLAN. These command scripts are used by the Virtual Network - Deploy and Virtual Network - Undeploy workflows respectively to provision and unprovision a VLAN from a networking switch using HP Network Automation 9.20 or higher.
HP Service Manager	HPSM_CSA_Integration_file	This is the HP Service Manager configuration file (unload file) which needs to be imported into HP Service Manager. After a successful import of the unload file, it creates a Script Library called OO_CSA in HP Service Manager. This script is used to internally invoke the HP Operations Orchestration flows SM Approve Ticket and SM Deny Ticket to approve and deny tickets respectively.

Internal actions

Build Resource Provider List

Applies to resource bindings. Builds a candidate list of resource providers that meets the following requirements:

- Support the resource offering referenced in a resource binding.
- Have an Availability of Enabled.
- If the service offering that references the service design with this action is in a service catalog with resource environments selected, the candidate list is further restricted to include only resource providers in one or more of the selected resource environments.

Table 44. Build Resource Provider List action

Properties	<ul style="list-style-type: none"> • resourceBindingId - UUID of the resource binding. Default:[TOKEN:RESC_BINDING_ID] • catalogId - UUID of the catalog. Default: [TOKEN:SVC_CATALOG_ID]
Service component	Defined directly on resource binding
Lifecycle or artifact state	PRE-RESERVING (fixed)

Cancel Service Subscription

Table 45. Cancel Service Subscription action

Properties	None
Service component	Defined on subscription.
Lifecycle or artifact state	Associated service instance in ACTIVE, FAILED, or MODIFY_FAILED state

Clone Pattern

Applies to service components. Clones a server pattern (a Server service component that is marked as pattern) into one or more non-pattern servers. The number of servers created is determined by the value of the property specified in the name of the property for server count on the service component identified by Server Group Component ID.

Table 46. Clone Pattern action

Properties	<ul style="list-style-type: none"> • serviceComponentId - UUID of the service component (parent) that has a child service component marked as template. Default: [TOKEN:SVC_COMPONENT_ID] • numberOfClonesPropertyName - Name of the property defined on the parent service component which contains the value of the total number of clones to be created.
Service component	The service component which has one (and only one) template/pattern component.
Lifecycle or artifact state	Flexible. Can be INITIALIZING, RESERVING, or DEPLOYING state, depending on the availability of dependent components

Log Messages

Applies to resource bindings, resource offerings, and service components. Writes the user-specified Boolean input, integer input, and string input property values to the csa.log file. You can include this as an action on a service component, resource binding, or resource offering for use in troubleshooting.

Table 47. Log Messages action

Properties	<ul style="list-style-type: none"> • stringInput - An input string value • integerInput - An input integer value • booleanInput - An input Boolean value
Service component	Any artifact
Lifecycle or artifact state	Any state

Modify Service Subscription

Table 48. Modify Service Subscription action

Properties	None
Service component	Defined on subscription.
Lifecycle or artifact state	Associated service instance in ACTIVE or MODIFY_FAILED state.

Order Service Offering

Table 49. Order Service Offering action

Properties	None
Service component	Defined on service offering.
Lifecycle or artifact state	Service offering in PUBLISHED state.

Select Resource Pool from Provider

Applies to resource bindings. Selects a resource pool from the set of resource pools associated with the selected resource provider. A resource pool must have an availability of Enabled to be selected. The selected resource pool will be available to resource offering actions in the token RSC_POOL_ID.

Table 50. Select Resource Pool from Provider action

Properties	<ul style="list-style-type: none"> resourceBindingId - UUID of the resource binding. Default:[TOKEN:RSC_BINDING_ID]
Service component	Defined directly on the resource binding.
Lifecycle or artifact state	PRE-RESERVING (fixed)

Select Resource Provider

Applies to resource bindings. Selects a resource provider from the candidate list that was built by the Build Resource Provider List action. The selected resource provider will be available to resource offering actions in the token RSC_PROVIDER_ID. The selected provider will, optionally, be written to a property on the associated service component if the Provider Property Name input to the action is provided.

Table 51. Select Resource Provider action

Properties	<ul style="list-style-type: none"> resourceBindingId - UUID of the resource binding. Default: [TOKEN:RSC_BINDING_ID] serviceComponentId - UUID of the service component, which is normally the parent of the resource binding. Default: [TOKEN:SVC_COMPONENT_ID] providerPropertyName - Name of the property on the service component which holds the UUID of the selected resource provider.
Service component	Defined directly on the resource binding.
Lifecycle or artifact state	PRE-RESERVING (fixed)

Select Resource Provider from Parent

Applies to resource bindings. Selects the resource provider already chosen by a service component's parent service component, as identified by the Parent Component ID and Provider Property Name properties. The selected resource provider will be available to resource offering actions in the token RSC_PROVIDER_ID.

Table 52. Select Resource Provider from Parent action

Properties	<ul style="list-style-type: none"> • parentComponentId - UUID of the service component which is the parent of the service component holding the resource binding. Default: [TOKEN:PRN_COMPONENT_ID] • resourceBindingId - UUID of the resource binding. Default: [TOKEN:RSC_BINDING_ID] • providerPropertyName - Name of the property on a parent component (specified by parentComponentId) which holds the selected resource provider ID. It will also be used to create a property which this name on the direct parent of the resource binding to hold the selected resource provider ID.
Service component	Defined directly on the resource binding.
Lifecycle or artifact state	PRE-RESERVING (fixed)

Subscriber actions

HP Matrix Operating Environment provider

Table 53. Subscriber actions for the HP Matrix Operating Environment provider

Name	Service component	Description	Inputs
Add Server ¹	Server Group	Invokes Add Server on the MOE service. This action is dynamically added on the component during initial subscription creation.	
Add Disk ²	Server Group	Invokes Add Disk on the MOE service. This action is dynamically added on the component during initial subscription creation.	
Add Disk	Server Group	Invokes addNewDisk on the MOE service. This action is dynamically added on the component during initial subscription creation and available on the MOE SOAP V4 API.	DISK_SIZE - Disk size on all serves in the server group.
Power On Server	Server	Invokes MOE Power on Server on the MOE server. This action is dynamically added on the component during initial subscription creation.	
Power Off Server	Server	Invokes MOE Power off Server on the MOE server. This action is dynamically added on the component during initial subscription creation.	
PowerCycle Server	Server	Invokes MOE Power Cycle Server on the MOE server. This action is dynamically added on the component during	

¹ Add Server action is supported only when the MOE service template is configured to support it.

² Add Disk action is supported only when the MOE service template is configured to support it.

Name	Service component	Description	Inputs
		initial subscription creation and available on the MOE SOAP V4 API.	
Flex CPU	Server	Invokes MOE editLogical Servers on the MOE server. This action is dynamically added on the component during initial subscription creation and available on the MOE SOAP V4 API. This action is enabled for Virtual Servers and disabled for Physical Servers.	
Flex Memory	Server	Invokes MOE editLogical Server on the MOE server. This action is dynamically added on the component during initial subscription creation and available on the MOE SOAP V4 API. This action is enabled for Virtual Servers and disabled for Physical Servers.	
Remove Server	Server	Invokes MOE removeLogical Server on the MOE server. This action is dynamically added on the component during initial subscription creation and available on the MOE SOAP V4 API.	
Power On Service	Infrastructure service	Invokes MOE Power On Service on the MOE service.	
Power Off Service	Infrastructure service	Invokes MOE Power Off Service on the MOE service.	
PowerCycle Service	Infrastructure service	Invokes MOE Power Cycle Service on the MOE Service. This actions is available on the MOE SOAP V4 API.	

HP Server Automation provider

Table 54. Subscriber actions for the HP Server Automation provider

Name	Service component	Description	Inputs
Add Server to Tier	Software Application Tier	Invokes the Add Server action on the server group and adds the server to the application tier.	
Remove Server from Tier	Software Application Tier	Invokes the Remove Server action on the server group and removes the server from the application tier.	

VMware vCenter provider

Table 55. Subscriber actions for the VMware vCenter provider

Name	Service component	Description	Inputs
Stop Server	Server	Invokes the Stop Server action on the server.	
Start Server	Server	Invokes the Start Server action on the server.	
Suspend Server	Server	Invokes the Suspend Server action on the server.	
Restart Server	Server	Invokes the Restart Server action on the server.	
Flex CPU	Server Group	Sets the CPU count on the target VM based on the CPU_COUNT input value.	CPU_COUNT - The target count of CPUs

Name	Service component	Description	Inputs
			on all servers in the server group.
Flex Memory	Server Group	Sets the memory configurations on the target VM based on the MEMORY_IN_MB input value.	MEMORY_IN_MB - The target memory configuration on all of the servers in the server group.
Add Server	Server Group	Adds a single server to the server group.	
Remove Server	Server Group	Removes a random server from the server group.	

HPCS OpenStack provider

Table 56. Subscriber actions for the HPCS OpenStack provider

Name	Service component	Description	Inputs
Reboot Server	Server	Restarts the server instances	
Remove	Server	Deletes the server instance.	
Add Server	Server Group	Adds a single server to the server group.	

HP CloudOS provider

Table 57. Subscriber actions for the HP CloudOS provider

Name	Service component	Description	Inputs
Add Server to Server Group	Server Group	Adds a Server to Server Group.	Number of Instances
Add Volume Group to Server Group	Server Group	Adds a Volume Group to a Server Group.	<ul style="list-style-type: none"> attached_device volume_group_name volume_ids
Remove Attached Volume Group	Server Group	Removes a Volume group from Server Group.	<ul style="list-style-type: none"> Volume_group_name
Remove Security Group	Server	Removes a security group from a Server.	<ul style="list-style-type: none"> ip_address security_group_id
Unassign Floating IP	Server	Unassigns a Floating IP.	<ul style="list-style-type: none"> floating_ip_id
Pause	Server	Pauses a Server.	

Name	Service component	Description	Inputs
Assign Floating IP	Server	Assigns a floating IP.	<ul style="list-style-type: none"> Assign_to_ip_address external_network_ref floating_ip_id
Reboot	Server	Restarts the Server.	<ul style="list-style-type: none"> rebootType
Add Security Group	Server	Adds a Security Group to a Server.	<ul style="list-style-type: none"> Ip_address Security_group_id
Resume	Server	Resumes a Server.	
Suspend	Server	Suspends a Server.	
Unpause	Server	Unpauses a Server.	
Remove Server	Server	Removes a Server from the Server Group.	

Property values

Table 58. Property values that must be configured for content that ships with HP CSA

Property	Description
applicationName	Application name configured in HP ADM.
datacenterName	Name of the datacenter in the vCenter on which to deploy the VM.
applicationTierName	Application tier name that will be deployed in HP ADM.
dmaWorkflowName	HP DMA workflow to be deployed on the target VM.
dmaParam[1..n]	<p>Parameters for the HP DMA workflow are added as properties of the form DMAPARAM[1..n]. For example, DMAPARAM1, DMAPARAM2.</p> <p>The value for the properties is in the following format: <workflow step name for the input>.<input name>=<value></p> <p>For example, if DMAPARAM1 is the property name, JBoss Validate Stand Alone Parameters is the workflow step name, Install Dir is the step input name and /opt/jboss is the input value, then the property looks like this: DMAPARAM1 -> JBoss Validate Stand Alone Parameters.Install Dir=/opt/jboss</p>
memory	Memory size required for the deployed VM.
moeGroupName	The server group name defined on the MOE template.
nCPU	Number of CPUs required for the deployed VM.
serverCount	Total number of servers required in the server group.
osType	OS Type of the VM Template (LINUX or WINDOWS.)
customSpec	The customization specification that is required by the VM template.
ORGANIZATIONS	MOE provider organizations; this property should be configured on the MOE resource provider to be used with the custom provider selection service design.
applicationRelease	HP ADM application release.
sitescopeTemplate	Name of the HP SiteScope template on the HP SiteScope server.

Property	Description
switchIPAddress	The switch management IP address. The switch should already be discovered on HP Network Automation 9.20 or higher using this management IP address.
templateReference	The name of the VM template available in vCenter to use for VM deployment. The value of this property is of type list when used with a vCenter-based dynamic options resource offering. For MOE based services, the name of the HP MOE service template to use for service creation.
applicationVersion	HP ADM application version.
vlanId	ID used for the newly created VLAN. For example, 222.
vlanIPSubnet	The VLAN subnet IP address configured on the provisioned VLAN. For example, 192.168.10.1.
vlanSubnetMask	The VLAN subnet mask configured on the provisioned VLAN. For example, 255.255.255.0.
Image	Select the OS image available on the provider.
Flavor	Select the size of the server.
Type	Select the network type configured on Provider.
Network	Select the network configured on Provider.

Environmental prerequisites and configuration

HP Operations Orchestration

Table 59. Environmental prerequisites and configuration for HP Operations Orchestration

Configuration property	Description
/Configuration/System Accounts/CSA_REST_CREDENTIALS	Updates the system account with the CSA REST user credentials. The user name must match the CSA_OO_USER system variable. The password is cloud.
/Configuration/System Properties/CSA_OO_USER	The default value for this variable is oolnboundUser, and its property value must match the user name of CSA_REST_CREDENTIALS.
/Configuration/System Properties/CSA_REST_URI	Updates the property value with CSA REST URI. The URI is in the following format: https://<CSA IP>:<CSA port>/csa/rest The default value is https://localhost:8444/csa/rest. Note: HP OO and HP CSA should have the same SSL configuration. SSL must be enabled for the CSA REST URI, so it is required for both.
Central system configurations - Set save history based on flags to true	In OO Central, modify the Save history based on flags setting to true. When set to true, save history based on each step flags during headless run. The default is false. An empty value is interpreted as false. This setting is found on OO Central > Administration tab > System Configuration > General tab.

HP Universal CMDB

Table 60. Environmental prerequisites and configuration for HP Universal CMDB

Configuration property	Description
CSAIntegration.zip	Deploys the package on the HP Universal CMDB server. See the README.txt file on the HP CSA instance in the <CSA Install Path>\CSAKit-3.1\Lib\ucmdb folder.

HP SiteScope

Table 61. Environmental prerequisites and configuration for HP SiteScope

Configuration property	Description
CSA template.tpl ³	Import this file to the HP SiteScope server. See the README.txt file on the HP CSA instance in the <CSA Install Path>\CSAKit-3.1\Lib\sitescope folder for import details.
CSA templates Silver.tpl	Import this file to the HP SiteScope server. See the README.txt file on the HP CSA instance in the <CSA Install Path>\CSAKit-3.1\Lib\sitescope folder for import details.
CSA templates Gold.tpl	Import this file to the HP SiteScope server. See the README.txt file on the HP CSA instance in the <CSA Install Path>\CSAKit-3.1\Lib\sitescope folder for import details.
CSA templates autoimport.tpl	Import this file to the HP SiteScope server. See the README.txt file on the HP CSA instance in the <CSA Install Path>\CSAKit-3.1\Lib\sitescope folder for import details.

HP Server Automation – ADM

Table 62. Environmental prerequisites and configuration for HP Server Automation – ADM

Configuration property	Description
	See Configuring HP Application Deployment Manager.

HP Server Automation – DMA

Table 63. Environmental prerequisites and configuration for HP Server Automation – DMA

Configuration property	Description
	See Configuring HP Database and Middleware Automation.

HP Server Automation – Software policies

Table 64. Environmental prerequisites and configuration for HP Server Automation – Software policies

Configuration property	Description
	See Configuring HP Server Automation Software Policies.

³ This file should be imported manually only when the autoimport.tpl of the CSA template fails to import on HP SiteScope server.

HPCS OpenStack

Table 65. Environmental prerequisites and configuration for HPCS OpenStack

Configuration property	Description
	See Configuring HP Cloud Services and OpenStack.

VMware vCenter

Table 66. Environmental prerequisites and configuration for VMware vCenter

Configuration property	Description
VM Template	Clone the target from this template.

HP Matrix Operating Environment

Table 67. Environmental prerequisites and configuration for HP Matrix Operating Environment

Configuration property	Description
MOE_SCL_TEMPLATE	Import this MOE service template on the MOE Designer Portal. See the README.txt file on the HP CSA instance in the <CSA Install Path>\CSAKit-3.1\Lib\matrix operating environment folder for more details.
ADM_WEB_DB_TIER_TEMPLATE	Import this MOE service template on the MOE Designer Portal for use with ADM based service designs. See the README.txt file on the HP CSA instance in the <CSA Install Path>\CSAKit-3.1\Lib\matrix operating environment folder for more details.
MOE_71_SCL_TEMPLATE	Import this MOE service template on the MOE Designer Portal for MOE 7.1 SOAP v4 based service designs. See the README.txt file on the HP CSA instance in the <CSA Install Path>\CSAKit-3.1\Lib\matrix operating environment folder for more details.

HP Network Automation

Table 68. Environmental prerequisites and configuration for HP Network Automation

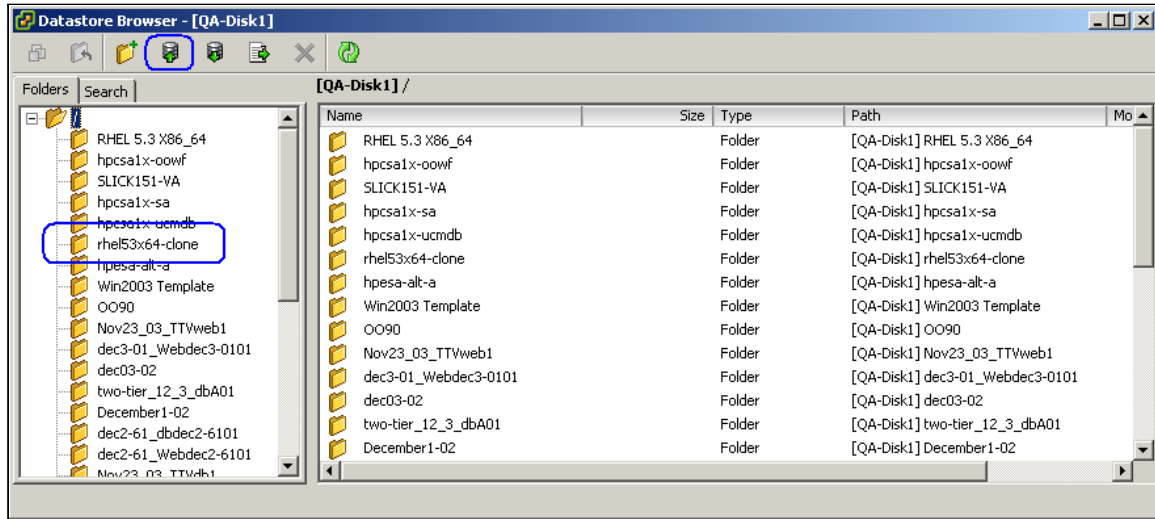
Configuration property	Description
HPN Virtual Network.exp	Import this file to the HP Network Automation portal. See the README.txt file on the HP CSA instance in the <CSA Install Path>\CSAKit-3.1\Lib\network automation folder for command script import details. See Configuring HP Network Automation for more information.

Configuring HP Application Deployment Manager

HP Server Automation must be installed and configured before you configure HP ADM. The *HP Server Automation Simple/Advanced Installation Guide* can be found at <https://softwaresupport.hp.com/>. Information about setting permissions is found in a separate chapter. You can also find documentation in this location for HP Application Deployment Manager.

You can find the steps required to prepare a clone template in vCenter in the *HP Cloud Service Automation Configuration Guide* at <https://softwaresupport.hp.com/>. The clone template should be prepared for a Red Hat Enterprise Linux 5.3 x 64 OS image.

Figure 1 TEMPLATEReference : rhel53x63-clone



CSA service design setup

See Sequenced content archives for the service design and resource offering that are needed to provision the application.

Properties

Table 69. Properties required on the service design to deploy HP Application Deployment Management.

Property Name	Value	Description
ADMAPPLICATION	Multitier	Application configured on HP ADM.
Release	Initial Release	Release of the application.
Version	1	Version for the application in HP ADM.
DEPLOYAPPLICATION	MySQL 5.1 or Apache 2.2	Tier name configured for an application. The name is case-sensitive.
NOOFSERVERS	1	Number of servers per tier.
DATACENTERNAME		Datacenter name in vCenter.
TEMPLATEREFERENCE		Clone template reference configured in vCenter.

Configuring HP Cloud Services and OpenStack

Install HP Cloud Services

No installation is required for HP Cloud Services as it is accessible through the Web. However, you must configure HP Cloud Services to integrate with HP CSA.

Configure HP Cloud Services

Perform the following steps to configure HP Cloud Services to integrate successfully with HP CSA.

Step 1: Sign Up as an HP Cloud Services User

You must be a registered user to access HP Cloud Services. Sign up for HP Cloud Services at: <https://console.hpcloud.com/signup>.

Step 2: Configure a Security Group and KeyPair

Before you can create an instance, perform the following steps to configure a Security Group and KeyPair in the HP Cloud Services environment:

1. Go to <https://console.hpcloud.com/login>.
2. Add a group named frontend for each availability zone and region under **Managed Security Groups**.
3. Create a KeyPair named "nova" for each availability zone and region under **Manage KeyPair**.

You can configure the Security Group and KeyPair values as default values in the Server Group component properties of a HP CSA service design.

Step 3: Open a Port to Access HP Cloud Services

1. Open port 35357 on the HP CSA system so it has access to the HP Cloud Services environment.
2. Access the HP Cloud Services environment at <https://region.geo.identity.hpcloudsvc.com:35357/v2.0>.

Configuring HP Helion Public Cloud

To create and import a topology service design you must create a CloudOS profile and a Resource Pool on the CloudOS provider.

Refer to the CloudOS documentation to create the profile and resource pool.

Validate the service design

After importing the CloudOS out-of-the-box content, perform the following steps to validate the service design:

1. Open the HP CSA Management Console.
2. Select the **Design** tab.
3. Select the topology design.
4. Click on the imported out-of-the-box design, such as SingleTier or TwoTier design.
5. Select the **Editor** tab.
Check the Error(s) tab for errors on the design. If there are no errors then the design is valid.
6. Select the respective components such as Server Group or Network or Volume Group on the canvas.
7. In the panel on the right, initialize the required properties for each component.
8. Click **Save**.

Configuring Amazon Web Services

Configure Amazon Web Services

Perform the following steps to configure Amazon Web Services to integrate successfully with HP CSA.

Step 1: Sign Up as an AWS EC2 User

You must be a registered user to access AWS EC2 Services. Sign up for AWS EC2 Services at <http://aws.amazon.com/console/>

Step 2: Configure a Security Group and KeyPair

Perform the following steps to configure a security group and key pair as per your requirement and preserve the key pair to access the provisioned amazon instance later:

1. Go to <http://aws.amazon.com/console/> and log in.
2. Go to **EC2 Services**.
3. Click **Key Pairs**.
4. Click **Create New KeyPair**.
5. Provide the Key Pair details and note down the Key Pair.

Step 3: Setup proxy on HP Operations Orchestration

This step is optional in case HP Operations Orchestration has direct internet access.

1. Log in to the HP Operations Orchestration.
2. Go to **Content Management -> Configuration Items -> System Properties**
3. Provide details for the CSA_Proxy_Host and CSA_Proxy_Port properties.
4. Go to **Content Management -> Configuration Items -> System Accounts**
5. Provide details for the CSA_PROXY_CREDENTIALS property by entering a valid username and password.
This step is applicable only if credentials are mandatory for proxy configuration.

Configuring HP Database and Middleware Automation

DMA Organization

Create the consumer organization on HP Database and Middleware Automation (HP DMA.) The organization name on HP DMA should match the HP CSA consumer organization identifier, which is the identifier created for the consumer organization name by HP CSA.

See the “Roles and Permissions, Role-Based Database and Middleware Automation Permissions” section in the *HP Server Automation User Guide: Database and Middleware Automation*, which can be found at <https://softwaresupport.hp.com/>.

User Permissions

See the “Roles and Permissions, Types of Permissions” section in the *HP Server Automation User Guide: Database and Middleware Automation* for the HP Server Automation user permissions required to deploy applications using DMA.

Solution Pack

Import the required solution pack to the HP DMA server. The solution packs can be downloaded from the HP Live Network Portal at <https://hpln.hp.com/group/database-and-middleware-automation>. For JBoss, download the AS Provisioning solution pack under Middleware Solution Packs.

See the “Solutions, Working with Solution Packs” section of the *HP Server Automation User Guide: Database and Middleware Automation* for the steps required to import the solution pack.

Workflow Dependencies

The HP DMA workflows may require some dependent software packages to be imported into the HP Server Automation core. After installing the solution pack, refer to the workflow documentation to find the dependencies. In the HP DMA console, look for Workflows on the Automation tab. Select the workflow to run. On its documentation page, the workflow is listed in the Dependencies section.

The Provision JBoss StandAlone workflow requires JDK 1.6 update 24 and RedHat JBoss 5.1.1 zip installs. Download the required packages to a temp directory on the machine containing the HP Server Automation client. The dependent software should be imported into the HP Server Automation core.

To import the software, complete the following steps:

1. Open the HP Server Automation client.
2. Click **Library** from the left panel, then navigate to **Packages > Required OS Version**.
3. Right-click an empty area in the left panel and then select **Import Software**.
4. Select all files (downloaded dependencies) and then click **Import**.

Configuring HP Network Automation

HP Network Automation (HP NA) must be installed and configured before you use it to provision a VLAN from a networking switch. The *HP Network Automation Software Installation and Upgrade Guide* helps to set up HP NA which can be found at <https://softwaresupport.hp.com/>.

To configure HP Network Automation, perform the following steps:

1. Install HP Network Automation.
2. Network Automation supplies an NA driver pack with the base installation by default. HP recommends installing the latest HP NA driver pack after installing NA.

The HP NA July 2012 driver pack is available at:

https://hpln.hp.com/system/files/NA76-9x_driver_setup_windows_july2012_7215-071812.zip

The driver pack can also be downloaded from HP Live network at:

<https://hpln.hp.com/node/19/contentfiles>

This site requires that you register with HP Passport.

3. Set up the HP Networking switch with the management IP address.
 - a. Enable SSH, TFTP, and SCP in the switch according to your requirements.
 - b. Ensure that the configured networking switch is accessible from the HP NA server.
4. Discover and take a snapshot of the configured networking switch in the HP NA portal. The user guide helps you to set up this step. For example, in NA v9.20 the user guide is available in NA server at <HP NA Install Path>\docs\en\user_guide.pdf. This path may vary depending on installed HP NA version. The networking switch must be discovered and managed by HP NA.

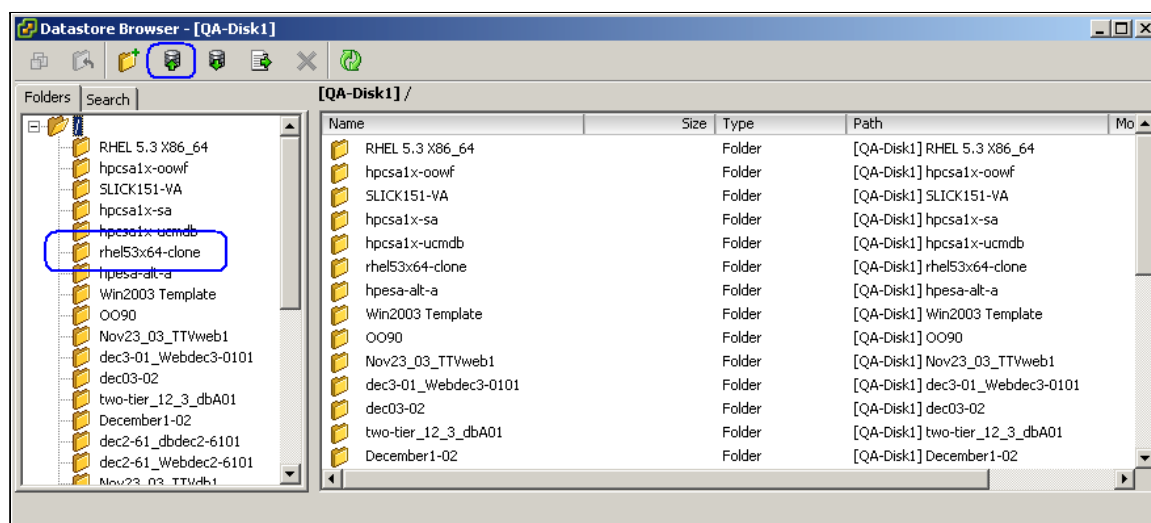
5. Import the command script to the HP NA portal. See the README.txt file on the HP CSA instance in the <CSA Install Path>\CSAKit-3.1\Lib\network automation folder for more details. The command script must be tested manually and be able to execute successfully from the HP NA console.

Configuring HP Server Automation Software Policies

HP Server Automation must be installed and configured before you can use it to deploy applications. See the *HP Server Automation Simple/Advanced Installation Guide* at <https://softwaresupport.hp.com/> for information about setting permissions.

You can find the steps required to prepare a clone template in vCenter in the *HP Cloud Service Automation Configuration Guide* at <https://softwaresupport.hp.com/>.

Figure 2 TEMPLATEREFERENCE : rhel53x64-clone



Prerequisites

- Prepare a VM template. See the *HP Cloud Service Automation Configuration Guide* for instructions.
- OO-SA v9.00.06 content must be installed in Operations Orchestration v9.03.0001 or higher.
- The HP SA software policies must have the same name as the software components in the service design. In the CSA_BP_VCENTER_COMPUTE_SA_SOFTWARE_POLICIES_v3.10.00 service design, software policies with the names Apache, MySQL, and PHP must be available in HP SA.

CSA service design setup

See the Sequenced content archives section in this document for the required service design and resource offerings.

Properties

Table 70. Properties required on the service design

Property Name	Value	Description
OSTYPE	WINDOWS, LINUX	The type of the operating system.

Property Name	Value	Description
TEMPLATEREFERENCE		The name of the template reference configured in vCenter that should be used for VM cloning.
NCPU	1	Number of CPUs in the server.
MEMORYINMB	512	The memory of the server in megabytes.
NOOFSERVERS	1	Number of servers per tier.
DATACENTERNAME		Datacenter name in vCenter.

Sequenced content archives

CSA_BP_MOE_COMPUTE_ADM_SITESCOPE_UCMDB_v3.20.00

This content archive provisions a compute infrastructure using HP MOE, deploys applications using HP ADM, monitors servers using HP SiteScope, and creates and manages service topology on HP Universal CMDB.

Resource offerings:

- UCMDB_CONFIG_MANAGEMENT_3.20
- SA_NOOP_3.20
- MOE_COMPUTE_ADM_3.20
- SA_MANAGE_SERVERS_3.20
- SA_ADM_3.20
- SA_MOE_ADM_FLEX_3.20
- SITESCOPE_SERVER_MONITORING_3.20

Table 71. Service design

Name	MOE_COMPUTE_ADM_SITESCOPE_UCMDB_3.20
Subscriber options	None

Table 72. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Software Application Service	<ul style="list-style-type: none"> • templateReference • applicationName • applicationRelease • applicationVersion • sitescopeTemplate 	<ul style="list-style-type: none"> • applicationName • applicationRelease • applicationVersion • moeServiceName 	None
Software Application Tier	applicationTierName	applicationTierName	None

Component type	Input properties	Consumer visible properties	Subscriber actions
Server Group	moeGroupName	serverGroupName	None
Server	None	<ul style="list-style-type: none"> hostname ipAddress disk (When data disks are used. Display names are the same as those defined for the MOE service template.) 	<ul style="list-style-type: none"> Power On Server Power Off Server

Table 73. Dependencies

Required information	Specific values
External or provider dependency	<ul style="list-style-type: none"> HP Matrix Operating Environment HP Universal CMDB HP SiteScope HP Server Automation
Required provider and template	<ul style="list-style-type: none"> HP Matrix Operating Environment - ADM_WEB_DB_TIER_TEMPLATE HP SiteScope – CSA templates
Required resource offering	<ul style="list-style-type: none"> UCMDB_CONFIG_MANAGEMENT_3.20 SA_NOOP_3.20 MOE_COMPUTE_ADM_3.20 SA_MANAGE_SERVERS_3.20 SA_ADM_3.20 SA_MOE_ADM_FLEX_3.20 SITESCOPE_SERVER_MONITORING_3.20

CSA_BP_MOE_COMPUTE_ADM_v3.20.00

This content archive provisions a compute infrastructure using HP MOE and deploys applications using HP ADM.

Table 74. Service design

Display name	Subscriber options
MOE_COMPUTE_ADM_3.20	None

Table 75. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
SA_NOOP_3.20	HP Server Automation	Selects a resource provider from a parent component and passes it on to the child component.	None	None

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Display name	Provider	Description	Subscriber actions	Properties
MOE_COMPUTE_ADM_3.20	HP Matrix Operating Environment	Provisions simple compute server using MOE from a Software application service component.	<ul style="list-style-type: none"> Power Off Service Power On Service 	None
SA_MANAGE_SERVERS_3.20	HP Server Automation	Deactivates and deletes managed servers from HP SA.	None	None
SA_ADM_3.20	HP Server Automation	Deploys an application using HP ADM.	None	None
SA_MOE_ADM_FLEX_3.20	HP Server Automation	Adds a server using HP MOE and deploys applications on the added server using HP ADM.	Add Server	None

Table 76. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Software Application Service	<ul style="list-style-type: none"> templateReference applicationName applicationRelease applicationVersion 	<ul style="list-style-type: none"> applicationName applicationRelease applicationVersion moeServiceName 	None
Software Application Tier	applicationTierName	applicationTierName	None
Server Group	moeGroupName	serverGroupName	None
Server	None	<ul style="list-style-type: none"> hostname ipAddress disk (When data disks are used. Display names are the same as those defined for the MOE service template.) 	<ul style="list-style-type: none"> Power On Server Power Off Server

Table 77. Dependencies

Required Information	Specific values
External or provider dependency	HP Matrix Operating Environment
Required provider and template	HP Matrix Operating Environment - ADM_WEB_DB_TIER_TEMPLATE

Required Information	Specific values
Required resource offering	<ul style="list-style-type: none"> SA_NOOP_3.20 MOE_COMPUTE_ADM_3.20 SA_MANAGE_SERVERS_3.20 SA_ADM_3.20 SA_MOE_ADM_FLEX_3.20

CSA_BP_MOE_COMPUTE_CUSTOM_PROVIDER_SELECTION_v3.20.00

Provisions compute infrastructure using MOE Resource provider is selected based on a property configured on the provider.

Table 78. Service design

Display name	Subscriber options
MOE_COMPUTE_CUSTOM_PROVIDER_SELECTION_3.20	None

Table 79. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
MOE_COMPUTE_3.20	HP Matrix Operating Environment	Provisions simple compute server using MOE	<ul style="list-style-type: none"> Power Off Service Power On Service 	None

Table 80. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	templateReference	moeServiceName	None

These components are dynamically created and are visible after the service instance is deployed.

Table 81. Dynamically created service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Server Group	None	serverGroupName	<ul style="list-style-type: none"> Add Disk Add Server
Server	None	<ul style="list-style-type: none"> hostname ipAddress nCPU memory powerState 	<ul style="list-style-type: none"> Power On Server Power Off Server

Component type	Input properties	Consumer visible properties	Subscriber actions
		<ul style="list-style-type: none"> disk (When data disks are used. Display names are the same as those defined for the MOE service template.) 	

Table 82. Dependencies

Required Information	Specific values
External or provider dependency	HP Matrix Operating Environment
Required provider and template	HP Matrix Operating Environment - MOE_SCL_TEMPLATE ORGANIZATIONS property should be created and populated on each MOE resource provider entry in order to customize the provider selection based on the ORGANIZATIONS property.
Required resource offering	MOE_COMPUTE_3.20

CSA_BP_MOE_COMPUTE_DMA_JBOSS_SITESCOPE_UCMDB_v3.20.00

This content archive provisions a compute infrastructure using MOE, deploys JBOSS using an HP DMA workflow, monitors servers using HP SiteScope, and creates and manages a service topology on HP Universal CMDB.

Table 83. Service design

Display name	Subscriber options
MOE_COMPUTE_DMA_JBOSS_SITESCOPE_UCMDB_3.20	None

Table 84. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
UCMDB_CONFIG_MANAGEMENT_3.20	HP Universal CMDB	Creates and manages component configuration details on HP Universal CMDB.	None	None
SA_NOOP_3.20	HP Server Automation	Selects a resource provider from a parent component and passes it on to the child component.	None	None

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Display name	Provider	Description	Subscriber actions	Properties
MOE_COMPUTE_3.20	HP Matrix Operating Environment	Provisions simple compute server using MOE	<ul style="list-style-type: none"> Power Off Service Power On Service 	None
SA_MANAGE_SERVERS_3.20	HP Server Automation	Deactivates and deletes managed servers from HP SA.	None	None
SA_DMA_JBOSS_3.20	HP Server Automation	Deploys JBOSS using an HP DMA workflow. Resource offering properties are populated with JBOSS workflow parameters.	None	<ul style="list-style-type: none"> dmaParam1 dmaParam2 dmaParam3 dmaParam4 dmaParam5 dmaParam6 dmaParam7 dmaParam8 dmaParam9 dmaParam10 dmaWorkflow Name
SITESCOPE_SERVER_MONITORING_3.20	HP SiteScope	Monitors servers using HP SiteScope.	None	None

Table 85. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	templateReference	moeServiceName	None

These components are dynamically created and are visible after the service instance deployment.

Table 86. Dynamically created service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Server Group	None	serverGroupName	<ul style="list-style-type: none"> Add Disk Add Server
Server	None	<ul style="list-style-type: none"> hostname ipAddress nCPU memory 	<ul style="list-style-type: none"> Power On Server Power Off Server

Component type	Input properties	Consumer visible properties	Subscriber actions
		<ul style="list-style-type: none"> powerState disk (When data disks are used. Display names are the same as those defined for the MOE service template.) 	

Table 87. Dependencies

Required Information	Specific values
External or provider dependency	<ul style="list-style-type: none"> HP Matrix Operating Environment HP SiteScope HP Universal CMDB HP Server Automation
Required provider and template	HP Matrix Operating Environment - MOE_SCL_TEMPLATE
Required resource offering	<ul style="list-style-type: none"> MOE_COMPUTE_3.20 SA_NOOP_3.20 SA_MANAGE_SERVERS_3.20 SA_DMA_JBOSS_3.20 UCMDB_CONFIG_MANAGEMENT_3.20 SITESCOPE_SERVER_MONITORING_3.20

CSA_BP_MOE_COMPUTE_DMA_JBOSS_v3.20.00

This content archive provisions a compute infrastructure using HP MOE or higher and deploys JBOSS using an HP DMA workflow.

Table 88. Service design

Display name	Subscriber options
MOE_COMPUTE_DMA_JBOSS_3.20	None

Table 89. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
SA_NOOP_3.20	HP Server Automation	Selects a resource provider from a parent component and passes it on to the child component.	None	None
MOE_COMPUTE_3.20	HP Matrix Operating Environment	Provisions simple compute	<ul style="list-style-type: none"> Power Off Service 	None

Display name	Provider	Description	Subscriber actions	Properties
		server using MOE.	<ul style="list-style-type: none"> Power On Service 	
SA_MANAGE_SERVERS_3.20	HP Server Automation	Deactivates and deletes managed servers from HP SA.	None	None
SA_DMA_JBOSS_3.20	HP Server Automation	Deploys JBOSS using an HP DMA workflow. Resource offering properties are populated with JBOSS workflow parameters.	None	<ul style="list-style-type: none"> dmaParam1 dmaParam2 dmaParam3 dmaParam4 dmaParam5 dmaParam6 dmaParam7 dmaParam8 dmaParam9 dmaParam10 dmaWorkflowName

Table 90. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	templateReference	moeServiceName	None

These components are dynamically created and are visible after the service instance deployment.

Table 91. Dynamically created service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Server Group	None	serverGroupName	<ul style="list-style-type: none"> Add Disk Add Server
Server	None	<ul style="list-style-type: none"> hostname ipAddress nCPU memory powerState disk (When data disks are used. Display names are the same as those defined for the MOE service template.) 	<ul style="list-style-type: none"> Power On Server Power Off Server

Table 92. Dependencies

Required Information	Specific values
External or provider dependency	<ul style="list-style-type: none"> HP Matrix Operating Environment HP Server Automation
Required provider and template	HP Matrix Operating Environment - MOE_SCL_TEMPLATE
Required resource offering	<ul style="list-style-type: none"> MOE_COMPUTE_3.20 SA_NOOP_3.20 SA_MANAGE_SERVERS_3.20 SA_DMA_JBOSS_3.20

CSA_BP_MOE_COMPUTE_MT_v3.20.00

This content archive provisions a compute infrastructure with multi-tenancy using HP MOE.

Table 93. Service design

Display name	Subscriber options
MOE_COMPUTE_MT_3.20	None

Table 94. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
MOE_COMPUTE_MT_3.20	HP Matrix Operating Environment	Provisions a simple compute server using MOE 7.0 or higher with multi-tenancy support.	None	None

Table 95. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	templateReference	moeServiceName	None

These components are dynamically created and are visible after the service instance deployment.

Table 96. Dynamically created service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Server Group	None	serverGroupName	None
Server	None	<ul style="list-style-type: none"> hostname ipAddress nCPU 	None

Component type	Input properties	Consumer visible properties	Subscriber actions
		<ul style="list-style-type: none"> memory powerState disk (When data disks are used. Display names are the same as those defined for the MOE service template.) 	

Table 97. Dependencies

Required Information	Specific values
External or provider dependency	HP Matrix Operating Environment
Required provider and template	HP Matrix Operating Environment - MOE_SCL_TEMPLATE
Required resource offering	MOE_COMPUTE_3.20

CSA_BP_MOE_COMPUTE_SITESCOPE_UCMDB_v3.20.00

This content archive provisions a compute infrastructure using MOE, monitors servers using HP SiteScope, and creates and manages a service topology on HP Universal CMDB.

Table 98. Service design

Display name	Subscriber options
MOE_COMPUTE_SITESCOPE_UCMDB_3.20	None

Table 99. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
UCMDB_CONFIG_MANAGEMENT_3.20	HP Universal CMDB	Creates and manages component configuration details on HP Universal CMDB.	None	None
MOE_COMPUTE_3.20	MOE_COMP UTE_3.20	Provisions simple compute server using MOE	<ul style="list-style-type: none"> Power Off Service Power On Service 	None
SITESCOPE_SERVER_MONITORING_3.20	HP SiteScope	Monitors servers using HP SiteScope.	None	None

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Table 100. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	<ul style="list-style-type: none"> templateReference sitescopeTemplate 	moeServiceName	None

These components are dynamically created and are visible after the service instance deployment.

Table 101. Dynamically created service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Server Group	None	serverGroupName	<ul style="list-style-type: none"> Add Disk Add Server
Server	None	<ul style="list-style-type: none"> hostname ipAddress nCPU memory powerState disk (When data disks are used. Display names are the same as those defined for the MOE service template.) 	<ul style="list-style-type: none"> Power On Server Power Off Server

Table 102. Dependencies

Required Information	Specific values
External or provider dependency	<ul style="list-style-type: none"> HP Matrix Operating Environment HP Universal CMDB HP SiteScope
Required provider and template	<ul style="list-style-type: none"> HP Matrix Operating Environment - MOE_SCL_TEMPLATE HP SiteScope - CSA templates
Required resource offering	<ul style="list-style-type: none"> MOE_COMPUTE_3.20 UCMDB_CONFIG_MANAGEMENT_3.20 SITESCOPE_SERVER_MONITORING_3.20

CSA_BP_MOE_COMPUTE_SOAPV4_v3.20.00

Provisions compute infrastructure for MOE using SOAP V4 API.

Table 103. Service design

Display name	Subscriber options
MOE_COMPUTE_SOAPV4_3.20	None

Table 104. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
MOE_COMPUTE_SOAPV4_3.20	HP Matrix Operating Environment	Provisions a simple compute server using MOE with SOAP V4.	<ul style="list-style-type: none"> Power Off Service Power On Service Power Cycle Service 	None

Table 105. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	templateReference	moeServiceName	None

These components are dynamically created and are visible after the service instance deployment.

Table 106. Dynamically created service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Server Group	None	serverGroupName	<ul style="list-style-type: none"> Add Disk Add Server
Server	None	<ul style="list-style-type: none"> hostname ipAddress nCPU memory powerState disk (When data disks are used. Display names are the same as those defined for the MOE service template.) 	<ul style="list-style-type: none"> Power On Server Power Off Server Power Cycle Server Flex CPU Flex Memory Remove Server

Table 107. Dependencies

Required Information	Specific values
External or provider dependency	HP Matrix Operating Environment
Required provider and template	HP Matrix Operating Environment - MOE_71_SCL_TEMPLATE
Required resource offering	MOE_COMPUTE_SOAPv4_3.20

CSA_BP_MOE_COMPUTE_v3.20.00

This content archive provisions a compute infrastructure using HP MOE.

Table 108. Service design

Display name	Subscriber options
MOE_COMPUTE_3.20	None

Table 109. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
MOE_COMPUTE_3.20	HP Matrix Operating Environment	Provisions a simple compute server using MOE.	<ul style="list-style-type: none"> Power Off Service Power On Service 	None

Table 110. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	templateReference	moeServiceName	None

These components are dynamically created and are visible after the service instance deployment.

Table 111. Dynamically Created Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Server Group	None	serverGroupName	<ul style="list-style-type: none"> Add Disk Add Server
Server	None	<ul style="list-style-type: none"> hostname ipAddress nCPU memory powerState 	<ul style="list-style-type: none"> Power On Server Power Off Server

Component type	Input properties	Consumer visible properties	Subscriber actions
		<ul style="list-style-type: none"> disk (when data disks are used. Display names are the same as those defined for the MOE service template.) 	

Table 112. Dependencies

Required Information	Specific values
External or provider dependency	HP Matrix Operating Environment
Required provider and template	HP Matrix Operating Environment - MOE_SCL_TEMPLATE
Required resource offering	MOE_COMPUTE_3.20

CSA_BP_NA_VIRTUAL_NETWORK_v3.20.00

This content archive provisions a VLAN from a network switch using HP Network Automation 9.20 or higher. The switch IP address should be the management IP address of a switch that is already discovered by the HP Network Automation portal.

Table 113. Service design

Display name	Subscriber options
NA_VIRTUAL_NETWORK_3.20	None

Table 114. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
NA_VIRTUAL_NETWORK_3.20	HP Network Automation	Provisions a VLAN from a network switch using HP Network Automation 9.20 or higher.	None	None

Table 115. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	templateReference	None	None
Virtual Network	<ul style="list-style-type: none"> switchIPAddress vlanId vlanIPSubnet vlanSubnetMask 	<ul style="list-style-type: none"> vlanId vlanIPSubnet vlanSubnetMask 	None

Table 116. Dependencies

Required Information	Specific values
External or provider dependency	HP Network Automation
Required provider and template	HP Network Automation - HPN Virtual Network.exp
Required resource offering	NA_VIRTUAL_NETWORK_3.20

CSA_BP_OPENSTACK_HPCS_COMPUTE_v3.20.00

This content archive provisions server instances using OpenStack on HP Cloud Services.

Table 117. Service design

Display name	Subscriber options
OPENSTACK_HPCS_COMPUTE_3.20	<ul style="list-style-type: none"> • Server Size - Size of the Compute Resource • Image - OS Image • Geography - Geography of the instance • Region - Region of the instance • Availability Zone - Zone of the instance • Security Group - Security Group to enable ingress filtering • Instance Name - Name prefix appended to the instance name • Number of Servers - Number of server instances

Table 118. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
OPENSTACK_HPCS_COMPUTE_3.20	HP Cloud Services OpenStack	Creates server instances on HP Cloud Services environment.	Reboot Server	None

Table 119. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	None	None	None
Server Group	ServerCount	<ul style="list-style-type: none"> • flavor • image • geography • region • zone 	<ul style="list-style-type: none"> • Add Server • Remove Server

Component type	Input properties	Consumer visible properties	Subscriber actions
		<ul style="list-style-type: none"> securitygroup prefix serverCount keypair 	
Server	None	<ul style="list-style-type: none"> ipAddress serverName 	None

Table 120. Dependencies

Required Information	Specific values
External or provider dependency	OpenStack HP Cloud Services Provider: https://region.geo.identity.hpcloudsvc.com:35357/v2.0
Required provider and template	OpenStack HP Cloud Services The following properties should be defined on the OpenStack provider: <ul style="list-style-type: none"> proxyServer - Proxy Server proxyPort - Proxy Port tenantId - Openstack tenant Id
Required resource offering	OPENSTACK_HPCS_COMPUTE_3.20

CSA_BP_VCENTER_COMPUTE_ADM_SITESCOPE_UCMDB_v3.20.00

This content archive provisions a simple compute server using VMware vCenter. It deploys applications using HP ADM, monitors servers using HP SiteScope, and creates and manages service topology on HP Universal CMDB.

Table 121. Service design

Display name	Subscriber options
VCENTER_SCL_ADM_SITESCOPE_UCMDB_3.20	None

Table 122. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_3.20	VMware vCenter	Provisions a simple compute server using VMware vCenter.	<ul style="list-style-type: none"> Stop Server Start Server Restart Server Suspend Server 	None
SA_MANAGE_SERVERS_3.20	HP Server Automation	Deactivates and deletes managed servers from HP SA.	None	None
SITESCOPE_SERVER_MONITORING_3.20	HP SiteScope	Monitors servers using HP SiteScope.	None	None

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Display name	Provider	Description	Subscriber actions	Properties
UCMDB_CONFIG_MANAGEMENT_3.20	HP Universal CMDB	Creates and manages component configuration details on HP Universal CMDB.	None	None
VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20	VMware vCenter	Adds and removes CPU or memory from all servers in the server group.	<ul style="list-style-type: none"> Flex CPU Flex Memory 	None
SA_NOOP_3.20	HP Server Automation	Selects a resource provider from a parent component and passes it on to the child component.	None	None
SA_ADM_FLEX_3.20	HP Server Automation	Adds and removes servers from the HP ADM application tier.	<ul style="list-style-type: none"> Add Server to Tier Remove Server from Tier 	None
SA_ADM_3.20	HP Server Automation	Deploys an application using HP ADM.	None	None

Table 123. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Software Application Service	<ul style="list-style-type: none"> applicationName applicationRelease applicationVersion 	<ul style="list-style-type: none"> applicationName applicationRelease applicationVersion 	None
Software Application Tier	applicationTierName	applicationTierName	None
Server Group	serverCount	serverCount	None
Server	<ul style="list-style-type: none"> customSpec datacenterName sitescopeTemplate templateReference memory nCPU ostype 	<ul style="list-style-type: none"> hostname ipAddress macAddress memory nCPU powerState 	None

Table 124. Dependencies

Required Information	Specific values
External or provider dependency	<ul style="list-style-type: none"> VMware vCenter HP SiteScope HP Universal CMDB HP Server Automation
Required provider and template	<ul style="list-style-type: none"> VMware vCenter - VM template HP SiteScope – CSA templates
Required resource offering	<ul style="list-style-type: none"> VCENTER_COMPUTE_3.20 SA_MANAGE_SERVERS_3.20 SITESCOPE_SERVER_MONITORING_3.20 UCMDB_CONFIG_MANAGEMENT_3.20 VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20 SA_NOOP_3.20 SA_ADM_FLEX_3.20 SA_ADM_3.20

CSA_BP_VCENTER_COMPUTE_ADM_v3.20.00

This content archive provisions a simple compute server using VMware vCenter. It deploys application using HP ADM.

Table 125. Service design

Display name	Subscriber options
VCENTER_COMPUTE_ADM_3.20	None

Table 126. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_3.20	VMware vCenter	Provisions a simple compute server using VMware vCenter.	<ul style="list-style-type: none"> Stop Server Start Server Restart Server Suspend Server 	None
SA_MANAGE_SERVERS_3.20	HP Server Automation	Deactivates and deletes managed servers from HP SA.	None	None
VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20	VMware vCenter	Adds and removes CPU or memory from all servers in the server group.	<ul style="list-style-type: none"> Flex CPU Flex Memory 	None
SA_NOOP_3.20	HP Server Automation	Selects a resource provider from a parent component and passes it on to	None	None

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Display name	Provider	Description	Subscriber actions	Properties
		the child component.		
SA_ADM_FLEX_3.20	HP Server Automation	Adds and removes servers from the HP ADM application tier.	<ul style="list-style-type: none"> Add Server to Tier Remove Server from Tier 	None
SA_ADM_3.20	HP Server Automation	Deploys an application using HP ADM.	None	None

Table 127. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Software Application Service	<ul style="list-style-type: none"> applicationName applicationRelease applicationVersion 	<ul style="list-style-type: none"> applicationName applicationRelease applicationVersion 	None
Software Application Tier	applicationTierName	applicationTierName	None
Server Group	serverCount	serverCount	None
Server	<ul style="list-style-type: none"> customSpec datacenterName sitescopeTemplate templateReference memory nCPU ostype 	<ul style="list-style-type: none"> hostname ipAddress macAddress memory nCPU powerState 	None

Table 128. Dependencies

Required Information	Specific values
External or provider dependency	<ul style="list-style-type: none"> VMware vCenter HP SiteScope HP Universal CMDB HP Server Automation
Required provider and template	<ul style="list-style-type: none"> VMware vCenter - VM template HP SiteScope – CSA templates
Required resource offering	<ul style="list-style-type: none"> VCENTER_COMPUTE_3.20 SA_MANAGE_SERVERS_3.20 SITESCOPE_SERVER_MONITORING_3.20 UCMDB_CONFIG_MANAGEMENT_3.20 VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20 SA_NOOP_3.20

Required Information	Specific values
	<ul style="list-style-type: none"> SA_ADM_FLEX_3.20 SA_ADM_3.20

CSA_BP_VCENTER_COMPUTE_CUSTOM_POOL_SELECTION_v3.20.00

This content archive selects a datastore pool and provisions a simple compute server using vCenter.

Table 129. Service design

Display name	Subscriber options
VCENTER_COMPUTE_CUSTOM_POOL_SELECTION_3.20	<p>Choose the disk size for pool selection:</p> <ul style="list-style-type: none"> Small Medium Large <p>For example: For each option, such as Small, which has a disk size of 50 GB, create a vCenter template that can provision the appropriate instance with 50 GB of disk space.</p>

Table 130. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_3.20	VMware vCenter	Provisions a simple compute server using VMware vCenter.	<ul style="list-style-type: none"> Stop Server Start Server Restart Server Suspend Server 	None
VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20	VMware vCenter	Adds and removes CPU or memory from all servers in the server group.	<ul style="list-style-type: none"> Flex CPU Flex Memory 	None

Table 131. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	None	None	None
Server Group	serverCount	serverCount	<ul style="list-style-type: none"> Add Server Remove Server
Server	<ul style="list-style-type: none"> customSpec datacenterName nCPU memory ostype 	<ul style="list-style-type: none"> nCPU memory disk hostname ipAddress 	None

Component type	Input properties	Consumer visible properties	Subscriber actions
		<ul style="list-style-type: none"> macAddress powerState 	

Table 132. Dependencies

Required Information	Specific values
External or provider dependency	VMware vCenter
Required provider and template	VMware vCenter - VM template
Required resource offering	<ul style="list-style-type: none"> VCENTER_COMPUTE_3.20 VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20
Resource pool	Create a resource pool of storage type having unlimited resource availability for each data-store available on the provider. Note that the data-store name should match the resource pool name.

CSA_BP_VCENTER_COMPUTE_DEPENDENT_OPTIONS_v3.20.00

This content archive provisions a simple compute server using VMware vCenter with dependent subscriber options. Instead of creating a blueprint for each operating system, you can use this blueprint to design a single blueprint to install different operating systems on virtual machines by providing the VM template name and the customization specification that should be used during VM cloning.

Table 133. Service design

Display name	Subscriber options
VCENTER_COMPUTE_DEPENDENT_OPTIONS_3.20	<ul style="list-style-type: none"> Operating System <ul style="list-style-type: none"> Windows <ul style="list-style-type: none"> Windows 2008 R2 x64 Windows 2008 R2 x86 Linux <ul style="list-style-type: none"> RHEL 5.6 x64 RHEL 5.6 x86 OptionSet - osType Option - customSpec Option - templateReference

Table 134. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_3.20	VMware vCenter	Provisions a simple compute server using VMware vCenter.	<ul style="list-style-type: none"> Stop Server Start Server Restart Server Suspend Server 	None

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20	VMware vCenter	Adds and removes CPU or memory from all servers in the server group.	<ul style="list-style-type: none"> Flex CPU Flex Memory 	None

Table 135. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	None	None	None
Server Group	<ul style="list-style-type: none"> customSpec ostype serverCount templateReference 	serverCount	<ul style="list-style-type: none"> Add Server Remove Server
Server	<ul style="list-style-type: none"> customSpec datacenterName nCPU memory ostype templateReference 	<ul style="list-style-type: none"> nCPU memory hostname ipAddress macAddress powerState 	None

Table 136. Dependencies

Required Information	Specific values
External or provider dependency	VMware vCenter
Required provider and template	<ul style="list-style-type: none"> VMware vCenter - Windows 2008 R2 x64 template VMware vCenter - Windows 2008 R2 x86 template VMware vCenter - RHEL 5.6 x64 template VMware vCenter - RHEL 5.6 x86 template
Required resource offering	<ul style="list-style-type: none"> VCENTER_COMPUTE_3.20 VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20

CSA_BP_VCENTER_COMPUTE_DMA_JBOSS_SITESCOPE_UCMDB_v3.

This content archive provisions a simple compute server using VMware vCenter. It deploys JBOSS using an HP DMA Workflow, monitors servers using HP SiteScope and creates and manages a service topology using HP Universal CMDB.

Table 137. Service design

Display name	Subscriber options
VCENTER_COMPUTE_DMA_JBOSS_SITESCOPE_UCMDB_3.20	None

Table 138. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_3.20	VMware vCenter	Provisions a simple compute server using VMware vCenter.	<ul style="list-style-type: none"> Stop Server Start Server Restart Server Suspend Server 	None
VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20	VMware vCenter	Adds and removes CPU or memory from all servers in the server group.	<ul style="list-style-type: none"> Flex CPU Flex Memory 	None
UCMDB_CONFIG_MANAGEMENT_3.20	HP Universal CMDB	Creates and manages component configuration details on HP Universal CMDB.	None	None
SITESCOPE_SERVER_MONITORING_3.20	HP SiteScope	Monitors servers using HP SiteScope.	None	None
SA_DMA_JBOSS_3.20	HP Server Automation	Deploys JBOSS using an HP DMA workflow. Resource offering properties are populated with JBOSS workflow parameters.	None	<ul style="list-style-type: none"> dmaParam dmaParam2 dmaParam dmaParam dmaParam5 dmaParam dmaParam7 dmaParam dmaParam9 dmaParam1 dmaWorkflowName
SA_NOOP_3.20	HP Server Automation	Selects a resource provider from a parent component and passes it on to the child component.	None	None
SA_MANAGE_SERVERS_3.20	HP Server Automation	Deactivates and deletes managed servers from HP SA.	None	None

Table 139. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	None	None	None
Server Group	serverCount	serverCount	<ul style="list-style-type: none"> Add Server Remove Server
Server	<ul style="list-style-type: none"> customSpec datacenterName nCPU memory ostype sitescopeTemplate templateReference 	<ul style="list-style-type: none"> nCPU memory hostname ipAddress macAddress powerState 	None

Table 140. Dependencies

Required Information	Specific values
External or provider dependency	<ul style="list-style-type: none"> VMware vCenter HP Server Automation HP SiteScope HP Universal CMDB
Required provider and template	<ul style="list-style-type: none"> HP UCMDB - CSAIntegration.zip HP SiteScope - CSA templates VMware vCenter - RHEL template
Required resource offering	<ul style="list-style-type: none"> VCENTER_COMPUTE_3.20 VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20 UCMDB_CONFIG_MANAGEMENT_3.20 SITESCOPE_SERVER_MONITORING_3.20 SA_DMA_JBOSS_3.20 SA_NOOP_3.20 SA_MANAGE_SERVERS_3.20

CSA_BP_VCENTER_COMPUTE_DMA_JBOSS_v3.20.00

This content archive provisions a simple compute server using VMware vCenter and deploys JBOSS using HP DMA.

Table 141. Service design

Display name	Subscriber options
VCENTER_COMPUTE_DMA_JBOSS_3.20	None

Table 142. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_3.20	VMware vCenter	Provisions a simple compute server using VMware vCenter.	<ul style="list-style-type: none"> Stop Server Start Server Restart Server Suspend Server 	None
VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20	VMware vCenter	Adds and removes CPU or memory from all servers in the server group.	<ul style="list-style-type: none"> Flex CPU Flex Memory 	None
SA_DMA_JBOSS_3.20	HP Server Automation	Deploys JBOSS using an HP DMA workflow. Resource offering properties are populated with JBOSS workflow parameters.	None	<ul style="list-style-type: none"> dmaParam dmaParam2 dmaParam3 dmaParam4 dmaParam dmaParam7 dmaParam8 dmaParam dmaParam10 dmaWorkflow Name
SA_NOOP_3.20	HP Server Automation	Selects a resource provider from a parent component and passes it on to the child component.	None	None
SA_MANAGE_SERVERS_3.20	HP Server Automation	Deactivates and deletes managed servers from HP SA.	None	None

Table 143. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	None	None	None
Server Group	serverCount	serverCount	<ul style="list-style-type: none"> Add Server Remove Server
Server	<ul style="list-style-type: none"> customSpec datacenterName 	<ul style="list-style-type: none"> nCPU memory 	None

Component type	Input properties	Consumer visible properties	Subscriber actions
	<ul style="list-style-type: none"> nCPU memory ostype templateReference 	<ul style="list-style-type: none"> hostname ipAddress macAddress powerState 	

Table 144. Dependencies

Required Information	Specific values
External or provider dependency	<ul style="list-style-type: none"> VMware vCenter HP Server Automation
Required provider and template	VMware vCenter - VM template
Required resource offering	<ul style="list-style-type: none"> VCENTER_COMPUTE_3.20 VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20 SA_DMA_JBOSS_3.20 SA_NOOP_3.20 SA_MANAGE_SERVERS_3.20

CSA_BP_VCENTER_COMPUTE_DYNAMIC_OPTIONS_v3.20.00

This content archive provisions simple compute server using VMware vCenter. The clone template property is populated from the dynamic subscriber options.

Table 145. Service design

Display name	Subscriber options
VCENTER_COMPUTE_DYNAMIC_OPTIONS_3.20.00	VM Deployment: Template Name - The value that can be selected will be determined at the subscription time using properties.jsp.

Table 146. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_DYNAMIC_OPTIONS_3.20	VMware vCenter	Provisions a simple compute server using VMware vCenter. The resource offering property should be populated with the VM template names, which are later used to dynamically populate the subscriber options.	<ul style="list-style-type: none"> Stop Server Start Server Restart Server Suspend Server 	TEMPLATEREFERENCE

Table 147. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	None	None	None
Server Group	<ul style="list-style-type: none"> serverCount templateReference 	serverCount	None
Server	<ul style="list-style-type: none"> customSpec datacenterName nCPU memory ostype templateReference 	<ul style="list-style-type: none"> nCPU memory hostname ipAddress macAddress powerState 	None

Table 148. Dependencies

Required Information	Specific values
External or provider dependency	VMware vCenter
Required provider and template	VMware vCenter - VM template
Required resource offering	VCENTER_COMPUTE_DYNAMIC_OPTIONS_3.20

CSA_BP_VCENTER_COMPUTE_FAILURE_HANDLING_v3.20.00

This content archive provisions a simple compute server using VMware vCenter. If the deployment fails, it will clean up the provisioned vCenter resource.

Table 149. Service design

Display name	Subscriber options
VCENTER_COMPUTE_FAILURE_HANDLING_3.20	None

Table 150. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_DYNAMIC_OPTIONS_3.20	VMware vCenter	Provisions a simple compute server using VMware vCenter. If the deployment fails, it cleans up the provisioned vCenter resource.	<ul style="list-style-type: none"> Stop Server Start Server Suspend Server Restart Server 	None
VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20	VMware vCenter	Adds and removes CPU or memory	<ul style="list-style-type: none"> Flex CPU 	None

		from all servers in the server group.	<ul style="list-style-type: none"> Flex Memory 	
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Table 151. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	None	None	None
Server Group	<ul style="list-style-type: none"> serverCount templateReference 	serverCount	None
Server	<ul style="list-style-type: none"> customSpec datacenterName nCPU memory ostype templateReference 	<ul style="list-style-type: none"> nCPU memory hostname ipAddress macAddress powerState 	None

Table 152. Dependencies

Required Information	Specific values
External or provider dependency	VMware vCenter
Required provider and template	VMware vCenter - VM template
Required resource offering	<ul style="list-style-type: none"> VCENTER_COMPUTE_FAILURE_HANDLING_3.20 VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20

CSA_BP_VCENTER_COMPUTE_MODIFY_v3.20.00

Provisions a simple compute server and provides the capability to modify the subscription for vCenter.

Table 153. Service design

Display name	Subscriber options
VCENTER_COMPUTE_MODIFY_3.20	Choose the system configuration. Each option will set CPU and memory on the target instance: <ul style="list-style-type: none"> Small Medium Large

Table 154. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_3.20	VMware vCenter	Provisions a simple compute server	<ul style="list-style-type: none"> Stop Server 	None

Display name	Provider	Description	Subscriber actions	Properties
		using VMware vCenter.	<ul style="list-style-type: none"> Start Server Suspend Server Restart Server 	
VCENTER_COMPUTE_MODIFY_SERVER_RESOURCES_3.20	VMware vCenter	Adds and removes CPU or memory from all servers in the server group.	<ul style="list-style-type: none"> Flex CPU Flex Memory 	None

Table 155. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	None	None	None
Server Group	serverCount	serverCount	<ul style="list-style-type: none"> Add Server Remove Server
Server	<ul style="list-style-type: none"> customSpec datacenterName ostype templateReference 	<ul style="list-style-type: none"> nCPU memory hostname ipAddress macAddress powerState 	None

Table 156. Dependencies

Required Information	Specific values
External or provider dependency	VMware vCenter
Required provider and template	VMware vCenter - VM template
Required resource offering	<ul style="list-style-type: none"> VCENTER_COMPUTE_3.20 VCENTER_COMPUTE_MODIFY_SERVER_RESOURCES_3.20
Resource pool	Create a Resource Pool on the VCENTER provider having CPU and Memory as resource types.

CSA_BP_VCENTER_COMPUTE_SA_SOFTWARE_POLICIES_v3.20.00

This content archive provisions a simple compute server using VMware vCenter. It deploys LAMP stack on Linux servers using HP Server Automation software policies.

Table 157. Service design

Display name	Subscriber options
VCENTER_COMPUTE_SA_SOFTWARE_POLICIES_3.20	None

Table 158. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
SA_NOOP_3.20	HP Server Automation	Selects a resource provider from a parent component and passes it on to the child component.	None	None
SA_MANAGE_SERVERS_3.20	HP Server Automation	Deactivates and deletes managed servers from HP SA.	None	None
SA_SOFTWARE_POLICIES_3.20	HP Server Automation	Deploys applications on servers using HP SA software policies.	None	None
VCENTER_COMPUTE_3.20	VMware vCenter	Provisions a simple compute server using VMware vCenter.	<ul style="list-style-type: none"> • Stop Server • Start Server • Suspend Server • Restart Server 	None

Table 159. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	None	None	None
Server Group	serverCount	serverCount	<ul style="list-style-type: none"> • Add Server • Remove Server
Server	<ul style="list-style-type: none"> • customSpec • datacenterName • templateReference • memory • nCPU 	<ul style="list-style-type: none"> • hostname • ipAddress • macAddress • memory • nCPU 	None

	<ul style="list-style-type: none"> • ostype 	<ul style="list-style-type: none"> • powerState 	
Software Component	None	None	None

Table 160. Dependencies

Required Information	Specific values
External or provider dependency	<ul style="list-style-type: none"> • VMware vCenter • HP Server Automation
Required provider and template	VMware vCenter - VM template
Required resource offering	<ul style="list-style-type: none"> • SA_NOOP_3.20 • SA_MANAGE_SERVERS_3.20 • SA_SOFTWARE_POLICIES_3.20 • VCENTER_COMPUTE_3.20

CSA_BP_VCENTER_COMPUTE_SITESCOPE_MODIFY_v3.20.00

This content archive provisions a simple compute server using VMware vCenter, monitors servers using HP SiteScope, and supports subscription modification.

Table 161. Service design

Display name	Subscriber options
VCENTER_COMPUTE_SITESCOPE_MODIFY_3.20	<ul style="list-style-type: none"> • Silver- This options uses the Silver template and monitors three SiteScope parameters. • Gold- This options uses the Gold template and monitors four SiteScope parameters.

Table 162. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_3.20	VMware vCenter	Provisions a simple compute server using VMware vCenter.	<ul style="list-style-type: none"> • Stop Server • Start Server • Suspend Server • Restart Server 	None
SITESCOPE_MODIFY_3.20	HP SiteScope	Switches the server monitors to the new HP SiteScope template.	None	None

Table 163. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	None	None	None
Server Group	<ul style="list-style-type: none"> sitescopeTemplate serverCount 	serverCount	None
Server	<ul style="list-style-type: none"> customSpec datacenterName nCPU memory ostype sitescopeTemplate templateReference 	<ul style="list-style-type: none"> nCPU memory hostname ipAddress macaddress powerState 	None
Software Component	None	None	None

Table 164. Dependencies

Required Information	Specific values
External or provider dependency	<ul style="list-style-type: none"> VMware vCenter HP SiteScope
Required provider and template	<ul style="list-style-type: none"> VMware vCenter - VM template HP SiteScope - CSA templates HP SiteScope - CSA templates Silver HP SiteScope - CSA templates Gold
Required resource offering	<ul style="list-style-type: none"> VCENTER_COMPUTE_3.20 SITESCOPE_MODIFY_3.20

CSA_BP_VCENTER_COMPUTE_SITESCOPE_UCMDB_v3.20.00

This content archive provisions a simple compute server using VMware vCenter, monitors servers using HP SiteScope, and creates and manages service topology using HP Universal CMDB.

Table 165. Service design

Display name	Subscriber options
VCENTER_COMPUTE_SITESCOPE_UCMDB_3.20	None

Table 166. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_3.20	VMware vCenter	Provisions a simple compute server	<ul style="list-style-type: none"> Stop Server 	None

HP Cloud Service Automation Integration Pack

		using VMware vCenter.	<ul style="list-style-type: none"> Start Server Suspend Server Restart Server 	
SITESCOPE_SERVER_MONITORING_3.20	HP SiteScope	Monitors servers using HP SiteScope.	None	None
UCMDB_CONFIG_MANAGEMENT_3.20	HP Universal CMDB	Creates and manages component configuration details on HP Universal CMDB.	None	None
VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20	VMware vCenter	Adds and removes CPU or memory from all servers in the server group.	<ul style="list-style-type: none"> Flex CPU Flex Memory 	None

Table 167. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	None	None	None
Server Group	serverCount	serverCount	None
Server	<ul style="list-style-type: none"> customSpec datacenterName sitescopeTemplate templateReference memory nCPU ostype 	<ul style="list-style-type: none"> hostname ipAddress macaddress memory nCPU powerState 	None
Software Component	None	None	None

Table 168. Dependencies

Required Information	Specific values
External or provider dependency	<ul style="list-style-type: none"> VMware vCenter HP SiteScope HP Universal CMDB
Required provider and template	<ul style="list-style-type: none"> VMware vCenter - VM template HP SiteScope - CSA templates
Required resource offering	<ul style="list-style-type: none"> VCENTER_COMPUTE_3.20 SITESCOPE_SERVER_MONITORING_3.20 UCMDB_CONFIG_MANAGEMENT_3.20 VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20

CSA_BP_VCENTER_COMPUTE_v3.20.00

This content archive provisions a simple compute server using VMware vCenter.

Table 169. Service design

Display name	Subscriber options
VCENTER_COMPUTE_3.20	None

Table 170. Resource offerings

Display name	Provider	Description	Subscriber actions	Properties
VCENTER_COMPUTE_3.20	VMware vCenter	Provisions a simple compute server using VMware vCenter.	<ul style="list-style-type: none"> Stop Server Start Server Suspend Server Restart Server 	None
VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20	VMware vCenter	Adds and removes CPU or memory from all servers in the server group.	<ul style="list-style-type: none"> Flex CPU Flex Memory 	None

Table 171. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Service Composite	None	None	None
Infrastructure Service	None	None	None
Server Group	serverCount	serverCount	<ul style="list-style-type: none"> Remove Server Add Server
Server	<ul style="list-style-type: none"> customSpec datacenterName templateReference memory nCPU ostype 	<ul style="list-style-type: none"> hostname ipAddress macaddress memory nCPU powerState 	None

Table 172. Dependencies

Required Information	Specific values
External or provider dependency	VMware vCenter
Required provider and template	VMware vCenter - VM template

Required Information	Specific values
Required resource offering	<ul style="list-style-type: none"> VCENTER_COMPUTE_3.20 VCENTER_COMPUTE_FLEX_SERVER_RESOURCES_3.20

Delegated topology content archives

Please refer to the *Application Deployment on Realized Topology Instance Using Sequenced Design* white paper for more details.

Topology content archives

CSA_BP_AMAZON_EC2_INFRA_v4.10.00

This content archive provisions an Amazon ec2 infrastructure using Amazon Web Services (AWS.)

Table 173. Service design

Display name	Profiles
AMAZON_EC2_INFRA	<ul style="list-style-type: none"> Amazon Linux Profile Red Hat Profile Windows Profile

Table 174. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Amazon Server	<ul style="list-style-type: none"> availabilityZone amild keyName instanceType instanceNamePrefix securityGroupIds username password privateKey subnetId 	<ul style="list-style-type: none"> availabilityZone amild keyName instanceName instanceType securityGroupIds privateIpAddress publicIpAddress instanceId instanceStatus vpclId 	<ul style="list-style-type: none"> Start Server Stop Server Reboot Server
Amazon Network Interface	<ul style="list-style-type: none"> deviceIndex interfaceDescription securityGroupIds subnetId 	<ul style="list-style-type: none"> deviceIndex availabilityZone instanceId interfaceStatus interfaceDescription macAddress networkInterfaceId privateIpAddress securityGroupIds 	<ul style="list-style-type: none"> Attach Network Interface Detach Network Interface

Component type	Input properties	Consumer visible properties	Subscriber actions
		<ul style="list-style-type: none"> subnetId vpId 	
Amazon Volume	<ul style="list-style-type: none"> deviceName availabilityZone volumeSize 	<ul style="list-style-type: none"> deviceName availabilityZone instanceId volumeId volumeSize volumeStatus 	<ul style="list-style-type: none"> Attach Volume Detach Volume

Table 175. Dependencies

Required information	Specific values
External or provider dependency	Amazon Web Services (AWS)

CSA_BP_VCENTER_HPSA_LAMP_STACK_v4.10.00

This content archive provisions a compute infrastructure using vCenter and deploys Apache, MySQL, and Python applications on the server.

Please note that if you are using OOTB design then you should have the same policy on HP Server Automation (SA) before running it or change the design with policy existing on your HP SA.

Table 176. Service design

Display name	Profiles
VCENTER_HPSA_LAMP_STACK	None

Table 177. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
VCenter Server	<ul style="list-style-type: none"> vmTemplateReference customizationSpec vmNamePrefix username password privateKey 	<ul style="list-style-type: none"> cpuCount customizationSpec hostname ipAddress ipAddressList macAddress memorySize vmID vmState vmNamePrefix 	<ul style="list-style-type: none"> Flex CPU Flex Memory Restart Server Start Server Stop Server Suspend Server
Apache	None	None	None
MySQL	None	None	None
Python 2 for Server Modules	None	None	None

Table 178. Dependencies

Required information	Specific values
External or provider dependency	<ul style="list-style-type: none"> HP Server Automation VMware vCenter

CSA_BP_Two_Tier_Pet_Clinic_Application_Through_Docker_v4.20.00

This content archive provisions a Pet Clinic 2-tier application through Docker.

Table 179. Service design

Display name	Profiles
Two Tier Pet Clinic Application Using Docker	

Table 180. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
vCenter Server	<ul style="list-style-type: none"> availabilityZone amild keyName instanceType instanceNamePrefix securityGroupIds username password privateKey subnetId 	<ul style="list-style-type: none"> availabilityZone amild keyName instanceName instanceType securityGroupIds privateIpAddress publicIpAddress instanceId instanceStatus vpclId 	<ul style="list-style-type: none"> Start Server Stop Server Reboot Server
Docker File from SCM	<ul style="list-style-type: none"> dockerBuildArgs dockerRunArgs port sourceControlPassword sourceControlUrl sourceControlUser timeOut 	<ul style="list-style-type: none"> dockerBuildArgs dockerRunArgs port sourceControlPassword sourceControlUrl sourceControlUser timeOut 	
Docker File	<ul style="list-style-type: none"> dockerBuildArgs dockerFileInput dockerRunArgs port timeOut 	<ul style="list-style-type: none"> dockerBuildArgs dockerFileInput dockerRunArgs port timeOut 	

Table 181. Dependencies

Required information	Specific values
External or provider dependency	VMware vCenter

CSA_BP_Pet_Clinic_Application_Over_Existing_Infrastructure_v4.20.00

This content archive provisions a single tier Pet Clinic application over Existing Infrastructure deployed through Docker Containers.

Table 182. Service design

Display name	Profiles
Single Tier Pet Clinic Application Over Existing Infrastructure	

Table 183. Service components

Component type	Input properties	Consumer visible properties	Subscriber actions
Existing Server	<ul style="list-style-type: none"> HOST-FQDN IPADDRESS PASSWORD SSHPORT PRIVATEKEY USERNAME 	<ul style="list-style-type: none"> HOST-FQDN IPADDRESS PASSWORD SSHPORT PRIVATEKEY USERNAME 	
Docker Image	<ul style="list-style-type: none"> dockerArgs dockerEmail dockerPassword dockerUsername imageName launchCommand port timeOut 	<ul style="list-style-type: none"> dockerArgs dockerEmail dockerPassword dockerUsername imageName launchCommand port timeOut 	

Table 184. Dependencies

Required information	Specific values
External or provider dependency	

CSA_BP_PETCLINIC_APPLICATION_v4.20.00

This service design demonstrates how to deploy a two-tier partial PetClinic application using vCenter. This service design has Database Server and Application Server as requirements. Another service design 'CSA_BP_PETCLINIC_TWO_TIER_INFRASTRUCTURE_v4.20.00' provides the infrastructure for this partial PetClinic application design.

Table 185. Service design

Display name	Profiles
PetClinic Application	None

When this design is imported, you will see the following two new topology components getting imported automatically:

PetClinic Application

PetClinic DB Conf

PetClinic Application

This component represents an application component used to deploy the PetClinic application. This component downloads the application library from the configured properties on the component and deploys it on the application server.

Table 186. Input properties

Property name	Description
artifacturl	The HTTP location where the petclinic.war file is located.
configurationurl	The HTTP location where the petclinic_jdbc_conf.sh file is located.
artifactusername	This attribute is for future use, leave it blank. If the artifacturl or configurationurl is a remote path such as an HTTP location and requires access permission to download the content, then specify the username here. Use artifacturl and configurationurl paths which do not require access permission to download.
artifactpassword	This attribute is for future use, leave it blank. If the artifacturl or configurationurl is a remote path such as an HTTP location and requires access permission to download the content, then specify the password here. Use artifacturl and configurationurl paths which do not require access permission to download.
remotefilepath	The path on the target server where the artifacts will be downloaded, for example: /tmp/
localfilepath	The file name in local machine. Use petclinic.war.
port	The SSH port to log in to the target server. The default port is 22.
privatekeyPath	This attribute is for future use, leave it blank. In future this value will be used for authentication on a target server.
servicecommand	The script to be run to configure the PetClinic application on the target server. Use sh /tmp/petclinic_jdbc_conf.sh

PetClinic DB Conf

This component represents a database configuration application which is used to configure the database and pass the database details to the PetClinic Application component.

Table 187. Input properties

Property name	Description
configurationurl	The HTTP location where the mysql ₁ db_conf.sh script is located.
artifactusername	This attribute is for future use, leave it blank. If the configurationurl is a remote path such as an HTTP location and requires access permission to download the content, then specify the username here. Use the configurationurl path which does not require access permission to download.
artifactpassword	This attribute is for future use, leave it blank. If the configurationUrl is the remote path such as an HTTP location and requires access permission to download the content, then specify the password here. Use the configurationUrl path which does not require access permission to download.
mysqlusername	The user name for mysql database, for example: root.
mysqlpassword	The password to be set for the mysql database, for example: password.
port	The SSH port to log in to the target server. The default port is 22.
privatekeyPath	This attribute is for future use, leave it blank. In future this value will be used for authentication on a target server.
remotefilepath	The path on the target server where the artifacts will be downloaded. Use /tmp/.
servicecommand	Use /tmp/mysql ₁ db_conf.sh.

Table 188. Service components

Component type	Input properties	Requirements	Consumer visible properties	Subscriber actions
PetClinic Application	<ul style="list-style-type: none"> Name artifacturl configurationurl artifactusername artifactpassword remotefilepath localfilepath port privatekeyPath servicecommand 	None	<ul style="list-style-type: none"> Name artifacturl configurationurl artifactusername artifactpassword remotefilepath localfilepath port privatekeyPath servicecommand 	None
PetClinic DB Conf	<ul style="list-style-type: none"> Name configurationurl artifactusername artifactpassword 	None	<ul style="list-style-type: none"> Name configurationurl artifactusername artifactpassword 	None

	<ul style="list-style-type: none"> mysqlusername mysqlpassword port privatekeyPath remotefilepath servicecommand 		<ul style="list-style-type: none"> mysqlusername mysqlpassword port privatekeyPath remotefilepath servicecommand 	
Capability (Database Server)	Name	MySQL 5.6	None	None
Capability (Application Server)	Name	Tomcat 7	None	None

CSA_BP_PETCLINIC_TWO_TIER_INFRASTRUCTURE_v4.20.00

This is an infrastructure design which has a MySQL component which serves as a Database Server and a Tomcat component which serves as the Application Server, both hosted on vCenter servers.

Table 189. Service design

Display name	Profiles
Two Tier Infrastructure with MySQL and Tomcat	None

When this design is imported, you will see the following new components gets imported automatically:

MySQL Database

Tomcat Application Server

MySQL Database

This component represents an application component that is used to install the database on the server.

Table 190. Input properties

Property name	Description
artifactUrl	The HTTP location where MySQL database is located. For example: mysql-server_5.6.21-1ubuntu12.04_amd64.deb-bundle.tar
configurationUrl	The HTTP location where the install_mysql.sh file is located.
artifactUsername	This attribute is for future use, leave it blank If the artifactUrl or configurationUrl is a remote path such as an HTTP location and requires access permission to download the content, then specify the username here. Use the artifactUrl and configurationUrl paths which do not require access permission to download.
artifactPassword	This attribute is for future use, leave it blank. If the artifactUrl or configurationUrl is a remote path such as an HTTP location and requires access permission to download the content, then specify the password here.

	Use the artifactUrl and configurationUrl paths which do not require access permission to download.
installPath	Unused for this component, leave it blank.
sshPort	The SSH port to log in to the target server. The default port is 22.
privatekeyPath	This attribute is for future use, leave it blank. In the future, this value will be used for authentication on a target server.
remoteFilePath	The path on the target server where the artifacts will be downloaded. Use /tmp/.
serviceCommand	Use <code>sh install_mysql.sh</code> .

Tomcat Application Server

This component represents an application component which is used to install a web application server.

Table 191. Input properties

Property name	Description
artifactUrl	The HTTP location where apache-tomcat-7 (for example <code>apache-tomcat-7.0.56.tar.gz</code>) is located.
configurationUrl	The HTTP location where the <code>install_tomcat.sh</code> file is located.
artifactUsername	This attribute is for future use, leave it blank. If the artifactUrl or configurationUrl is a remote path such as an HTTP location and requires access permission to download the content, then specify the username here. Use the artifactUrl and configurationUrl paths which do not require access permission to download.
artifactPassword	This attribute is for future use, leave it blank. If the artifactUrl or configurationUrl is a remote path such as an HTTP location and requires access permission to download the content, then specify the password here. Use artifactUrl and configurationUrl paths which do not require access permission to download.
installPath	The path where tomcat should be installed, for example: <code>/opt/tomcat7</code> .
sshPort	The SSH port to log in to the target server. The default port is 22.
privatekeyPath	This attribute is for future use, leave it blank. In future, this value will be used for authentication on a target server.
remoteFilePath	The path on the target server where the artifacts will be downloaded. Use /tmp/.
serviceCommand	Use <code>sh install_tomcat.sh</code> .

Table 192. Service components

Component type	Input properties	Requirements	Consumer visible properties	Subscriber actions
MySQL	<ul style="list-style-type: none"> Name artifactUrl configurationUrl artifactUsername artifactpassword installPath sshPort privatekeyPath remoteFilePath serviceCommand 	None	<ul style="list-style-type: none"> Name artifactUrl configurationUrl artifactUsername artifactpassword installPath sshPort privatekeyPath remoteFilePath serviceCommand 	None
Tomcat	<ul style="list-style-type: none"> Name artifactUrl configurationUrl artifactUsername artifactpassword installPath sshPort privatekeyPath remoteFilePath serviceCommand 	None	<ul style="list-style-type: none"> Name artifactUrl configurationUrl artifactUsername artifactpassword installPath sshPort privatekeyPath remoteFilePath serviceCommand 	None
vCenter Server (Database Server)	<ul style="list-style-type: none"> Name cupCount memorySize vmTemplateReference customizationSpec vmNamePrefix vmFolder username password privateKey 	None	<ul style="list-style-type: none"> Name cpuCount memorySize customizationSpec hostname ipAddress ipAddressList macAddress vmID vmState vmNamePrefix vmFolder 	<ul style="list-style-type: none"> Flex CPU Flex Memory Restart Server Start Server Stop Server Suspend Server
vCenter Server (Application Server)	<ul style="list-style-type: none"> Name cupCount memorySize vmTemplateReference customizationSpec vmNamePrefix vmFolder username password privateKey 	None	<ul style="list-style-type: none"> Name cpuCount memorySize customizationSpec hostname ipAddress ipAddressList macAddress vmID vmState 	<ul style="list-style-type: none"> Flex CPU Flex Memory Restart Server Start Server Stop Server Suspend Server

Component type	Input properties	Requirements	Consumer visible properties	Subscriber actions
			<ul style="list-style-type: none"> vmNamePrefix vmFolder 	

Note: The script files referenced in the above two designs are located in the same path where the designs are located. Please see the 'CSA_BP_PETCLINIC_APPLICATION_v4.20.00.txt' file for more information on pre-requisites and configurations for these designs.

HP Service Manager as an external approval system

This section provides information about the integration of HP Service Manager with HP CSA, where HP Service Manager is used as an external approval system.

HP Service Manager account prerequisites

- The HP Service Manager integration account should have enough privilege for creating change tickets in HPSM change module (Example account: falcon or System.Admin.)
- An operator in HP SM should have the privilege to approve or deny the created change request ticket (Example account: Change.Approver.)
- The HP CSA workload will be approved or denied after operator making decision on HP SM change tickets.
- HP SM has been configured integration with LDAP (Active Directory). Refer to the *HP Cloud Service Automation Installation Guide* for more details.

Complete the HP SM integration by referring to the "Configure HP Service Manager" section of *HP Cloud Service Automation Installation Guide* and then configure the external approval system in HP CSA as explained below.

Run the process definition tool

To run the process definition tool, complete the following steps:

1. On the system where you installed HP CSA, open the following file in a text editor:

```
\Program Files\Hewlett-Packard\CSA\Tools\ProcessDefinitionTool
HPO0InputSample.xml
```

2. Add the following line at the end of the file:

```
<ooengine accessPointType="EXTERNAL_APPROVAL" name="<give identifier 00 engine
for CSA>" password="<00 central admin password>" truststore="<CSA installation
folder>/jre/lib/security/cacerts" truststorePassword="<CSA keystore password>"
uri=" https://<00 central IP address>:8443/PAS/services/WSCentralService"
username="<00 central admin username>" >

<folder flow="true" path=" /Library/CSA/3.2/External Approval System/Service
Manager/Actions/SM Initiate Request Approval" recursive="false" update="true" />

</ooengine>
```

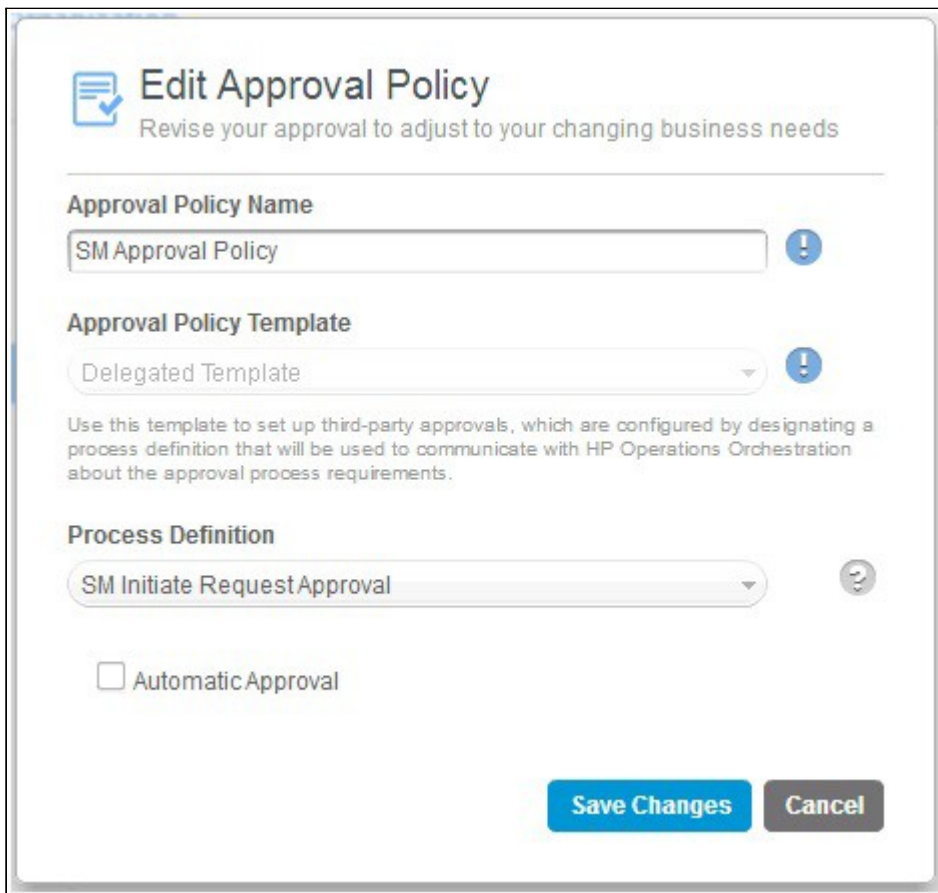
3. Run the following command from the process definition folder:

```
java -jar process-defn-tool.jar -d db.properties -i HPO0InputSample.xml
```

Configure external approval

To configure external approval, complete the following steps:

1. Log on to the HP CSA Management Console using an account with administrator privileges.
2. Select the Service Catalogs tab.
3. Select the catalog you want to use or create a new one.
4. Click **Approval Policies**.
5. Click **Add Approval Policy** near the bottom of the screen. The Add Approval Policy dialog opens.
6. Enter a name for the policy and then select **Delegated template** for the approval template. The Add Approval Policy dialog changes to include new fields.
7. Select **SM Initiate Request Approval** for the process definition.
8. Click **Save Changes**.



Edit Approval Policy
Revise your approval to adjust to your changing business needs

Approval Policy Name
SM Approval Policy

Approval Policy Template
Delegated Template

Use this template to set up third-party approvals, which are configured by designating a process definition that will be used to communicate with HP Operations Orchestration about the approval process requirements.

Process Definition
SM Initiate Request Approval

Automatic Approval

Save Changes **Cancel**

9. Return to the Service Catalog, and click **Published Offerings**.
10. Add a new offering or edit an exist offering.
11. Ensure that the approval process is set to **Active**, and then select **SM Initiate Request Approval** for the approval policy again.
12. Save the offering.

Configure HP SM LDAP (Active Directory) integration

To configure LDAP for HP SM, complete the following steps:

1. Create a new HP CSA Consumer user in the Active Directory server to request a change ticket (for example: consumer).
2. Log on to the HP SM client using as an administrative user such as falcon or System.Admin.
3. In HP SM, create a new power user with same name created for the HP CSA Consumer user in Active Directory (consumer) by cloning an administrator account such as falcon.
See the HP Service Manager documentation for instructions on how to create a new contact and its corresponding operator to complete this step.
4. Click **Connection > System Administration > Ongoing Maintenance > System > LDAP mapping**.
5. Enter values for the following:
 - **LDAP Server:** IP Address of LDAP server
 - **LDAP Port:** 389
 - **LDAP Base Directory:** CN=Users,DC=CSA,DC=COM (This is sample data)
6. Click **Save**.
7. Click **Set File/Field Level Mapping** and type "operator" for the Name.
8. Click **Search**.
9. Check the fields mentioned in step 5 to make sure they are filled in correctly on the <HP Service Manager LDAP Mapping - File/Field Level Specifications> page.
10. In the Field Name/LDAP Attribute Name table, make sure that you have value CN for the NAME field in the Field Name column.
11. Edit the sm.ini file, which is located in <HPSM install directory>\Server\RUN\ and include the following properties:
 - ldapauthenticateonly:1 ldapnostrictlogin:1
 - ldapbinddn:CN=Administrator,CN=Users,DC=CSA,DC=COM ldapbindpass:password
 - ldapdisable:0 ldapstats:1
12. Restart the HP SM server.

You should now be able to log in to HP Service Manager using an LDAP user and password.

HP SM execution order

To approve or deny the HP SM Change request ticket, complete the following steps:

1. Log on to the HP CSA Consumer Portal as the user who has privileges to create a service request.
2. Request the service offering you modified in the previous steps.
3. Log on HP Service Manager using an account which has privilege to approve or deny the created change request ticket (Example account: Change Approver.)
4. Click the Approval inbox from the menu navigator and check the request related change tickets that have been created and are waiting for approval.
5. Click the Approval inbox from the menu navigator and click Approve or Deny to make a decision on this request. The subscription is not be created until the approval has been made.

HP CSA deploys the approved subscription requests.

Limitation

To request the HP CSA subscription, HP CSA Consumer user should be created both in HP Service Manager and HP CSA. For example, the user consumer should be present both in HP CSA and HP Service manager.

Resource synchronization

Resource sync action

This section describes the action needed to synchronize the CPU and memory resource capacity of the vCenter provider with HP CSA resource pool. For more details on how resource pool synchronize works, see the "Create a Resource Pool" section in the HP CSA Management Console Help.

Prerequisite

HP CSA OO content must be installed. Refer to the *HP Cloud Service Automation Installation Guide* for details.

1. Import process definitions
2. Run the Process Definition Tool with the following lines in the `HP00input.xml` file:

```
</ooengine>

  <ooengine    accessPointType="RESOURCE_POOL_SYNC"    name="00-RESOURCE-POOL-SYNC"
password="ENC(LHNJx6hk0gDV12gAIa6MNQ==)" truststore="C:/Program
Files/Java/jre7/lib/security/cacerts"
truststorePassword="ENC(q6ctyVrBrqWIp107R00q58CrZh8tzPkP)"
uri="https://localhost:8443/PAS/services/WSCentralService" username="admin">

  <folder path="/Library/CSA/3.2/Resource Pool Sync/Actions" recursive="true"
update="true"/>

</ooengine>
```

Execute the sync action

1. Create a new Resource Pool for the vCenter Provider by supplying the datacenter name for the Provider As value.
2. Select **vCenter Resource Synchronization** as **vCenter Sync resource Capacity**.
3. When the resource pool has been created, add a resource type, CPU, and memory for the resource pool created under the Resources tab with the resource availability set as available.
4. In the summary tab, click **Synchronize Now**.
5. After synchronization is complete, the resource pool Last Synchronized should display the latest updated timestamp. The CPU and memory resource capacities should have updated its Available value from the provider.