Prerequisites

The following sections detail the prerequisites for installing Cisco Elastic Services Controller:

- Virtual Resource and Hypervisor Requirements, on page 1
- vCenter Resources, on page 1
- Important Notes, on page 2

Virtual Resource and Hypervisor Requirements

The following table lists the prerequisites to install Cisco Elastic Services Controller on VMware vCenter or vSphere:

See the VMware Compatibility Guide to confirm that VMware supports your hardware platform.

Requirement	Description
System Requirements	
Virtual CPUs	4 VCPUs
Memory	8 GB RAM
Disk Space	30 GB
Hypervisor Requirements	
VMWare vCenter	ESC supports VMware and vCenter versions 5.5, 6.0, and 6.5.

vCenter Resources

Resources to be created/installed on vCenter:

- **Datacenters**: At least one datacenter. For more details, see the **Important Notes** below.

- **Hosts**: Host configuration based on your targeted performance objectives. Each Host under the single vDS must have at least two physical Network Interface Card (NIC) connected, (one for vCenter Management Interface by default, and the other used to assign to VDS's uplink portgroup). This setup is required for data access across hosts.

- **Compute Clusters**: Clusters can be created to group several hosts together.

- **Datastores**: Shared datastore is required if user wants to leverage DRS.

- **Distributed Switches**: At least one distributed switch that will contains all the VNF supporting networks.

Important Notes

Keep in mind the following important notes while installing ESC on a VMware:

- A single ESC instance will only support:

    - Multiple Datacenter supported deployment, network, image, subnet creation

    - One vSphere Distributed Switch (VDS)

- DPM, HA, and vMotion must be off.

- If DRS is enabled, it has to be in the "Manual Mode".

- Fault Tolerance is not supported.

- Datastore Cluster is not supported, only flat datastore(s) structure under the cluster or under the datacenter are supported.

- ESC only supports a default resource pool. Adding and creating resource pools are not supported.

- Image (Template) created through ESC are stored under **/esc-ovas** folder .

- Day-0, smart license, and other supported files are packed into a ISO file, and uploaded to the same folder where the VM rest, then mount it as a CD-ROM to the VM.

- ESC/VIM does not responsd for the name and file content passed in for generating ISO file. They have to be provided according to each template's requirements. e.g. for ASAv, the day-0 config has to be named as "day0-config", and smart license token has to be named as "idtoken".

- When you see the error message "Networking Configuration Operation Is Rolled Back and a Host Is Disconnected from vCenter Server", it is due to a vCenter's limitation. See the to increase the timeout for rollback.

- The following VM features and operations are not supported in all versions of the Cisco CSR 1000V. If still these operations are used or performed, there may be risk of encountering dropped packets, dropped connections, and other error statistics.

    1. DRS
    2. Suspend
    3. Snapshot
    4. Resume

- Although deployments can be processed without shared storage, ESC does not guarantee optimized computing resource. Shared storage(s) should associate with as many as possible hosts, which will give more opportunity to DRS to balance resources.

- Every time a redeploy happens as part of recovery on VMware, VM's interface(s) will have different MAC addresses.

- All the VM group defined in a datamodel must accompany with a "zone-host" placement policy, meaning the deployment has to be either host-targeted or cluster-targeted.

- Recovery may fail, if a VM has PCI/PCIe passthrough device(s) attached, when it's recovered to a computing-host (picked based on ESC placement algorithm) which does not have any PCI/PCIe passthrough enabled device available .

- For PCI/PCIe passthrough working, DRS has to be off .

- If you experience a PowerOn error on a VM that has PCI/PCIe passthrough device(s) attached to it, update the VM or the image (template) the VM is cloned from, using the solution described here.

Important Notes