

# Cisco Elastic Services Controller 5.9 Release Notes

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## Introduction

Cisco Elastic Services Controller (ESC) is a Virtual Network Functions Manager (VNFM), which performs lifecycle management of Virtual Network Functions (VNFs).

The Cisco Elastic Services Controller (ESC) promotes agility, flexibility, and programmability in Network Function Virtualization (NFV) environments, and offers comprehensive automated lifecycle management capabilities. By design, Cisco ESC is built as an open and a modular system. It provides a single point of control to manage all aspects of VNF lifecycle for generic virtual network functions (VNFs) in a dynamic environment. Drawing on industry standards and open APIs, you can control the full lifecycle of all of your virtualized resources, whether using Cisco or third-party VNFs, allowing you to choose best-of-breed industry solutions.

- As part of the Cisco Orchestration Suite, ESC is packaged with Cisco Network Services Orchestrator (NSO) and Cisco NFV Orchestrator (NFVO) bundle. This is available within Cisco Solutions such as Cisco Managed Services Accelerator (MSX).
- As a Specialized Virtual Network Function Manager (SVNFM), ESC tightly integrates with the Cisco Mobility VNFs.
- ESC can also be utilized as a Generic Virtual Network Function Manager (GVNFM) to provide lifecycle management for both Cisco and third-party VNFs.

### Supported Virtual Infrastructure Managers (VIM)

ESC supports lifecycle management of VNFs on OpenStack, VMware vCenter, vCloud Director, Amazon Web Services (AWS) and so on. For more details, see the [Cisco Elastic Services Controller Install and Upgrade Guide](#).

## New Features and Enhancements in 5.9

This section describes the features added in Cisco Elastic Services Controller Release 5.9:

- **ETSI SOL002/3 Scaling Support** - ETSI to provide Scaling support using SOL002 or SOL003 APIs.  
For more information, see the [Cisco Elastic Services Controller ETSI User Guide](#).
- **NSX-T Support on ESC for VMWARE deployment** - ESC to support NSX-T platform for VMWare deployment  
For more information, see the [Cisco Elastic Services Controller Install and Upgrade Guide](#).
- **Reverting to VNF Snapshot using SOL002 or SOL003 APIs** - Reverting to VNF Snapshots using SOL002 or SOL003 APIs.  
For more information, see the [Cisco Elastic Services Controller ETSI User Guide](#).

- **ESC to Support Resource Pool and Folders Other Than Default One (for vCenter)** - ESC supports resource pool and specification folder for VCenter.

For more information, see the [Cisco Elastic Services Controller User Guide](#).

- **ESC Documentation Update**

- Cisco Elastic Services Controller Troubleshooting Guide—Explains the various troubleshooting activities related to ESC Installation, ESC HA, ESC Micro-services, ESC upgrades, ESC troubleshooting backup and restore, ESC ConfD and NETCONF API, and ESC VNF deployment. For more information, see the [Cisco Elastic Services Controller Troubleshooting Guide](#)

## Deprecated Features

Starting ESC Release 5.4, some of the functionalities are deprecated. The table below lists the deprecated functionalities, and the new functionalities replacing them in ESC:

**Table 1: Deprecated Functionalities**

Deprecated Functionality	New Functionality	New in Release	Deprecation Notice	Retired in (future) Release
Data model pertaining to SOL001 v2.7.1	Data model pertaining to SOL001 v3.3.1	5.7	5.7	
Data model, request/response structures and flows pertaining to SOL002 v2.5.1	Data model, request/response structures and flows pertaining to SOL002 v3.3.1	5.7	5.7	
Data model, request/response structures and flows pertaining to SOL003 v2.5.1	Data model, request/response structures and flows pertaining to SOL003 v3.3.1	5.7	5.7	
The Cisco-specific extensions on <code>tosca.datatypes.nfv.VnfHealOperationConfiguration</code> .	Moved to a standardised extension point: <code>cisco.datatypes.nfv.VnfcAdditionalConfigurableProperties</code>	5.4	5.4	6.0
The Cisco-specific extensions on <code>tosca.nodes.nfv.Vdu.VirtualBlockStorage</code> to specify the external volume UUID in the <code>resource_id</code> .	Moved to a standardised data structure: <code>tosca.nodes.nfv.Vdu.VirtualBlockStorage.virtual_block_storage_data.vdu_storage_requirements</code>	5.4	5.4	6.0

Deprecated Functionality	New Functionality	New in Release	Phase in Notice	Retired in (future) Release
Some of the Cisco-specific extensions on <code>tosca.nodes.nfv.VduCp</code> .	All but <code>allowed_address_pairs</code> have moved to standardised data structures on <code>tosca.nodes.nfv.VduCp</code> , <code>virtual_network_interface_requirements</code> and <code>tosca.nodes.nfv.VnfVirtualLink</code> , <code>virtual_link_protocol_data</code> .	5.4	5.4	6.0
The Cisco-specific extensions on <code>tosca.policies.nfv.SecurityGroupRule</code> to specify an out-of-band Security Group.	Moved to a standardised data structure: <code>tosca.nodes.nfv.VduCp.metadata.security_group</code>	5.4	5.4	6.0
The following Cisco-specific extensions on which serve as placeholders for the definition of fixed addresses and static IP pools in the SOL001 VNFD: <code>nodes.nfv.Vdu.Compute</code> ( <code>vdu_profile.static_ip_address_pools</code> )	Use <code>InstantiateVnfRequest</code> for IP addressing requirements, using <code>cpProtocolData</code> data structures, as per the standards.	5.3	5.4	6.0

Starting with Cisco ESC Release 5.3, support for the following may end in any of the future releases without additional notice:

- The deprecated VMware vCenter versions 5.5 and 6.0.
- The deprecated VMware vCloud Director (vCD) version 8.2.
- The deprecated D-MONA 1:1 mapping

For more information, see the release documents available at <http://www.cisco.com/c/en/us/support/cloud-systems-management/elastic-services-controller-esc/tsd-products-support-series-home.html>.

## Cisco Elastic Services Controller Bugs

For a complete list of open and resolved bugs for this release, use the Cisco [Bug Search](#) tool.

### Open Bugs

The table below lists the open issues in the Cisco Elastic Services Controller 5.9 release.

**Table 2: Open Bugs in Cisco Elastic Services Controller 5.9**

Bug ID	Description
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<a href="#">CSCwd63865</a>	After failed recovery of VM, the VM recovery again sends a notification with the wrong VM ID.
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### Resolved Bugs

The following table lists the resolved issues in the Cisco Elastic Services Controller 5.9 release.

**Table 3: Resolved Bugs in Cisco Elastic Services Controller 5.9**

Bug ID	Description
<a href="#">CSCwd30969</a>	VIM Connection fails when SSL is enabled in OpenStack as added certificate is not recognized

## Cisco Bug Search Tool

Bug Search Tool (BST), the online successor to Bug Toolkit, is designed to improve our customers' effectiveness in network risk management and device troubleshooting.

BST allows partners and customers to search for software bugs based on product, release, and keyword, and aggregates key data such as bug details, product, and version. The service has provision to filter bugs based on credentials to provide external and internal bug views for the search input.

To use the BST to search for a specific bug or to search for all bugs in a release:

### Procedure

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- Step 1** Go to <http://tools.cisco.com/bugsearch>.
- Step 2** At the Log In screen, enter your registered Cisco.com username and password; then, click Log In. The Bug Search page opens.
- Note** If you do not have a Cisco.com username and password, you can register for them at <http://tools.cisco.com/RPF/register/register.do>.
- Step 3** To search for a specific bug, enter the bug ID in the Search For field and press Return.
- Step 4** To search for bugs in the current release:
- In the Search For field, enter a keyword and press Return. (Leave the other fields empty).
  - When the search results are displayed, use the filter tools to find the types of bugs you are looking for. You can search for bugs by modified date, status, severity, and so forth.
- Tip** To export the results to a spreadsheet, click the Export All to Spreadsheet link.

See [Bug Search Tools & Resources](#) on Cisco.com. For more details on the tool overview and functionalities, check out the help page, located at <http://www.cisco.com/web/applicat/cbsshelp/help.html>

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## Accessibility Features in Cisco ESC

For a list of accessibility features in Cisco ESC 5.9, see [Voluntary Product Accessibility Template \(VPAT\)](#) on the Cisco website, or contact [accessibility@cisco.com](mailto:accessibility@cisco.com).

All product documents are accessible except for images, graphics, and some charts. If you would like to receive the product documentation in audio format, braille, or large print, contact [accessibility@cisco.com](mailto:accessibility@cisco.com).

## Related Documentation

The following documents are available for Cisco Elastic Services Controller:

- *Cisco Elastic Services Controller User Guide*
- *Cisco Elastic Services Controller Install and Upgrade Guide*
- *Cisco Elastic Services Controller ETSI NFV MANO Guide*
- *Cisco Elastic Services Controller Administration Guide*
- *Cisco Elastic Services Controller Troubleshooting Guide*
- *Cisco Elastic Services Controller NETCONF API Guide*
- *Cisco Elastic Services Controller REST API Guide*
- *Cisco Elastic Services Controller ETSI API Guide*
- *Cisco Elastic Services Controller Deployment Attributes*

You can access the documents at:

<http://www.cisco.com/c/en/us/support/cloud-systems-management/elastic-services-controller-esc/tsd-products-support-series-home.html>.

