

Cisco Elastic Services Controller 5.4 Release Notes

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 5.4

This section describes the features added in Cisco Elastic Services Controller Release 5.4:

- **SNMP Enhancements**
 - Supports SNMPv2c and SNMPv3 protocols
 - Enables SNMPv3 traps and notifications
 - Supports encryption and authentication
 - SNMP MIBs support monitoring the VIM and NFVO Connectivity Status
 - Provides additional OIDs for previous status and code
 - Enables the SNMP agent to split traps into individual ESC components and events

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

- **ESC NETCONF CLI Authentication**—ESC supports invoking the `esc_nc_cli` command with username and password. For more information, see the [Cisco Elastic Services Controller Install and Upgrade Guide](#).
- **ConfD CLI**—The `confd_cli` command is replaced. For more information, see the *Cisco Elastic Services Controller Install and Upgrade Guide*.
- **Encrypting Day-0 Variables**—ESC allows encrypting variables within the day-0 configuration. For more information, see the [Cisco Elastic Services Controller User Guide](#).
- **Terminology Changes**—The ESC software and documentation reflects bias-free terminologies. For more information, see the [Cisco User Documentation](#).
- **D-MONA support for CSP**—ESC supports deploying D-MONA on Cloud Services Platform (CSP). For more information, see the *Cisco Elastic Services Controller User Guide*.
- **PAM Health User Authentication**—The ESC `health user` group is added to the PAM authentication service configurations and user groups. For more information, see the [Cisco Elastic Services Controller Administration Guide](#).
- **Specifying PCI Device**—ESC allows specifying the PCI device for a vm group using the PCI address through the vCenter API. For more information, see the *Cisco Elastic Services Controller Administration Guide*.
- **Specifying MAC Address**—The ESC ETSI interface supports specifying the MAC address for VM ports.

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 |
|--|---|----------------|--------------------|-----------------------------|
| 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. | ESC 5.3 | ESC 5.4 | ESC 6.0 |
| The Cisco-specific extensions on <code>tosca.datatypes.nfv.VnfHealOperationConfiguration</code> . | Moved to a standardised extension point: <code>cisco.datatypes.nfv.VnfcAdditionalConfigurableProperties</code> . | ESC 5.4 | ESC 5.4 | ESC 6.0 |

| Deprecated Functionality | New Functionality | New in Release | Deprecation Notice | Retired in (future) Release |
|---|---|----------------|--------------------|-----------------------------|
| 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> | ESC 5.4 | ESC 5.4 | ESC 6.0 |
| 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.virtual_network_interface_requirements</code> and <code>tosca.nodes.nfv.VnfVirtualLink.virtual_link_protocol_data</code> | ESC 5.4 | ESC 5.4 | ESC 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> | ESC 5.4 | ESC 5.4 | ESC 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 5.4 release.

Table 2: Open Bugs in Cisco Elastic Services Controller 5.4

| Bug ID | Description |
|----------------------------|--|
| CSCvw66956 | CSP service migration fails when VNF image is not present on destination CSP |

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|----------------------------|--|
| CSCvw78696 | Deleting an unauthenticated VIM connector can stall up to 4min before DELETE_VIM_CONNECTOR received |
| CSCvx18901 | Successful Retry of a failed instantiate VNF request is not overriding the custom port names |
| CSCvx23268 | ESC AA: VIM Connector state returned via opdata can mismatch health API state |
| CSCvx14759 | ESC VIM connector to CVIM does not re-establish after connection dropout clears (stays disconnected) |

Resolved Bugs

The table below lists the resolved issues in the Cisco Elastic Services Controller 5.4 release.

Table 3: Resolved Bugs in Cisco Elastic Services Controller 5.4

| Bug ID | Description |
|----------------------------|---|
| CSCvx08690 | Instantiate VNF fails if static IP pools defined in VNFD and fixed IP in payload |
| CSCvx02902 | ESC Health Monitor incorrectly shows stage "INIT" when all services are healthy |
| CSCvw28283 | ESC AA: Deleted VIM connectors on follower nodes are not cleaned-up (reconfiguration can fail) |
| CSCvv80458 | ETSI monitoring migration can get stuck in PROCESSING state when leader owning destination faults |

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>

Accessibility Features in Cisco ESC

For a list of accessibility features in Cisco ESC 5.4, see [Voluntary Product Accessibility Template \(VPAT\)](#) on the Cisco website, or contact 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.

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 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>.

