Cisco Elastic Services Controller 5.6 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 5.6

This section describes the features added in Cisco Elastic Services Controller Release 5.6:

- **Restricting ESC ConfD CLI access**— ESC provides a layer of protection by restricting the access to ConfD CLI by default.

  For more information, see the Cisco Elastic Services Controller 5.6 Install and Upgrade Guide.

- **Redistributing Workload After Active/Active Node Failover**— ESC provides a new REST API that can be called on-demand to redistribute the configurations from the overloaded nodes to the available nodes.

  For more information, see the Cisco Elastic Services Controller 5.6 Install and Upgrade Guide.

- **ESC maintenance mode with D-MONA**— When ESC is set to maintenance/operation mode, the corresponding D-MONA instances are also set to maintenance/operational mode.

For more information, see the Cisco Elastic Services Controller 5.6 Install and Upgrade Guide.

- **Create/Update/Delete router and Floating IPs from ESC**—ESC supports creating, updating, and deleting the routers and supports assigning floating IPs.

  For more information, see the Cisco Elastic Services Controller Administration Guide .

- **ETSI LCM APIs - Heal VNF Extensions**—ESC provides heal recovery actions for various failure scenarios.

  For more information, see the Cisco Elastic Services Controller ETSI NFV MANO User Guide.

- **HEAL support for deleted in-band port resources**—ESC supports VM recovery during healing.

  For more information, see the Cisco Elastic Services Controller ETSI NFV MANO User Guide.

- **ESC supports taking VM snapshot in OpenStack**—ESC Supports VNF backup and restore operations using VM snapshots.

  For more information, see the Cisco Elastic Services Controller User Guide.

- **Support to set boot_index to 1 on existing volume**—ESC supports swapping out-of-band bootable volume in OpenStack.

  For more information, see the Cisco Elastic Services Controller User Guide.

- **Support Cinder multi-attach volumes on OpenStack**—Attaching a volume to multiple hosts/servers simultaneously in active/active or active/standby setup in OpenStack.

  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

The following Cisco-specific extensions on which serve as placeholders for the definition of fixed addresses and static IP pools in the SOL001 VNFD:
`nodes.nfv.Vdu.Compute`
`(vdu_profile.static_ip_address_pools)`
	Use
	`InstantiateVnfRequest`
	for IP addressing requirements, using `cpProtocolData` data structures, as per the standards.
		E S C 5.3	E S C 5.4	E S C 6.0

Deprecated Functionality	New Functionality	New in Release	Deprecation Notice	Retired in (future) Release
The Cisco-specific extensions on `tosca.datatypes.nfv.VnfHealOperationConfiguration`.	Moved to a standardised extension point: `cisco.datatypes.nfv.VnfcAdditionalConfigurableProperties`	E S C 5.4	E S C 5.4	E S C 6.0
The Cisco-specific extensions on `tosca.nodes.nfv.Vdu.VirtualBlockStorage` to specify the external volume UUID in the resource_id.	Moved to a standardised data structure: `tosca.nodes.nfv.Vdu.VirtualBlockStorage.virtual_block_storage_data.vdu_storage_requirements`	E S C 5.4	E S C 5.4	E S C 6.0
Some of the Cisco-specific extensions on `tosca.nodes.nfv.VduCp`.	All but allowed_address_pairs have moved to standardised data structures on `tosca.nodes.nfv.VduCp.virtual_network_interface_requirements` and `tosca.nodes.nfv.VnfVirtualLink.virtual_link_protocol_data`	E S C 5.4	E S C 5.4	E S C 6.0
The Cisco-specific extensions on `tosca.policies.nfv.SecurityGroupRule` to specify an out-of-band Security Group.	Moved to a standardised data structure: `tosca.nodes.nfv.VduCp.metadata.security_group`	E S C 5.4	E S C 5.4	E S C 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 5.6 release.

Table 2: Open Bugs in Cisco Elastic Services Controller 5.6

Bug ID	Description
CSCvz18002	Changing OOB port using ChangeExtVnfConnectivity API req is not detaching old port
CSCvz83738	Retry Operation failed with java.lang.IllegalArgumentException: No deployment details received

Resolved Bugs

The table below lists the resolved issues in the Cisco Elastic Services Controller 5.6 release.

Table 3: Resolved Bugs in Cisco Elastic Services Controller 5.6

Bug ID	Description
CSCvz00682	Unable to create external network though router_external property is set to true
CSCvy74955	Persistent volume update followed by VM recovery redeploy causes old volume to be reattached
CSCvy49845	ESC 5.4-86 Switchover does not generate status 5200 Trap
CSCvy83069	VIM authentication failure in ESC 5.4 or 5.5 after the restore from previous releases
CSCvz08156	ETSI Parser: YAML structures with empty values can produce null-pointer exceptions

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

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:

a. In the Search For field, enter a keyword and press Return. (Leave the other fields empty).

b. 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 5.6, 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 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.