

Cisco Elastic Services Controller 5.0 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 standalone product, ESC is available as a Virtual Network Function Manager bundled with several Cisco VNFs such as VPN, vRouter and many others.

Supported Virtual Infrastructure Managers (VIM)

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

New Features and Enhancements in 5.0

This section describes the features added in Cisco Elastic Services Controller Release 5.0.

- **ESC Active/Active High Availability**—ESC now supports High Availability (HA) in the form of Active/Active and Active/Standby models. For more information, see the [Cisco Elastic Services Controller Install and Upgrade Guide](#).
- **ESC Distributed Monitoring and Actions (D-MONA)**—ESC now supports Distributed Monitoring and Actions (MONA) for monitoring VNFs. For more information, see the [Cisco Elastic Services Controller User Guide](#). For ETSI related information on monitoring VNFs using D-MONA, see Monitoring Virtual Network Functions Using Distributed Monitoring and Actions in the [Cisco Elastic Services Controller ETSI NFV MANO User Guide](#).
- **Out-of-band Volumes**—ESC ETSI NFV MANO now supports out-of-band volumes using Cisco extensions. For more information, see Understanding Virtual Network Function Descriptors in the *Cisco Elastic Services Controller NFV MANO User Guide*.

- **Custom VM Name**—ESC ETSI allows you to customize the VM name using Cisco extensions. For more information, see Understanding Virtual Network Function Descriptors in the *Cisco Elastic Services Controller NFV MANO User Guide*.
- **OAuth 2.0 Authentication**—ESC ETSI supports OAuth 2.0 authentication. For more information, see Managing Resources in the *Cisco Elastic Services Controller NFV MANO User Guide*.
- **Autoscaling of VNFs**—ESC ETSI allows autoscaling of VMs using the KPI instructions. For more information, see Scaling Virtual Network Functions in the *Cisco Elastic Services Controller NFV MANO User Guide*.
- **VNFC level Recovery**—Additional parameters can be used to set the recovery policy to recover at VNFC level. For more information, see Healing Virtual Network Functions in the *Cisco Elastic Services Controller NFV MANO User Guide*.
- **SR-IOV Support**—ESC ETSI supports creating SR-IOV networks. For more information, see Understanding Virtual Network Function Descriptors in the *Cisco Elastic Services Controller NFV MANO User Guide*.
- **ESC Documentation Update**—Two new guides are introduced in the ESC 5.0 release:
 - Cisco Elastic Services Controller 5.0 ETSI NFV MANO User Guide—Explains the lifecycle management operations, monitoring, healing and scaling of the VNFs using the ETSI APIs.
 - Cisco Elastic Services Controller 5.0 Administration Guide—Explains maintenance of ESC, monitoring the health of ESC, and system logs generated by ESC.

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 5.0 release.

Table 1: Open Bugs in Cisco Elastic Services Controller 5.0

Bug ID	Description
CSCvq60257	DMONA returns UNMONITORED VNF status after ESC upgrade
CSCvq60091	ESC commands "escadm status" and "escadm ha" commands can show wrong output
CSCvq58303	When ESC fails-over and VIM is unreachable, notification is never sent
CSCvo84457	Downstream of volume based service software update failure, entering recovery may detach volume
CSCvo76893	Error during un-deployment requires ESC restart to clear the deployment
CSCvn53293	Service can get stuck in INERT STATE when recovering a deployment and all VIM/VNF communication lost
CSCvq42679	Multiple Vulnerabilities in kernel (RedHat Will Not Fix)

CSCvq41129	GNU Binutils IS_CONTAINED_BY_LMA Integer Overflow Vulnerability
CSCvq42682	Linux Kernel Multiple Vulnerabilities
CSCvq42081	GNU C Library Multiple Vulnerabilities (glibc)
CSCvq61632	Deployment stuck in INERT state after loss of VIM connection; downstream recovery fails
CSCvq21035	Unable to login to ESC Portal from User created using escadm portal set --init_users command
CSCvq19585	Evaluation of ESC for TCP_SACK
CSCvp52715	ESC Portal: Unable to delete dangling subnetworks
CSCvp49943	ESC does not honour configured OpenStack VIM connector glance version when deleting image
CSCvp49278	OpenStack VIM connector TLS connection can fail to establish
CSCvp30430	ESC tenant network create can fail due to timeout lock_denied during query of existing networks
CSCvo92454	ESC enforces no limit on Portal log file size
CSCvq58109	During recovery SERVICE_RECOVERY_COMPLETE is sent before all VM_RECOVERY_COMPLETE
CSCvq30455	ESC Policy action LCS::UNDEPLOY::PRE_VM_UNDEPLOY failure leaks database entries and VIM resources
CSCvp99068	ESC Portal shows blank page after upgrade with some CSP errors
CSCvp82396	Instantiate VNF intermittently fails with InvalidMonaDataException
CSCvq65416	SC passwd generation no longer generates a password using escadm command

Resolved Bugs

The table below lists the resolved issues in the Cisco Elastic Services Controller 5.0 release.

Table 2: Resolved Bugs in Cisco Elastic Services Controller 5.0

Bug ID	Description
CSCvq45930	Both ntpd and chronyd are enabled when ESC is booted with ntp_server option
CSCvp89274	ESC stops polling and marking VM's in error state when VIM returns powerState null
CSCvp88574	ETSI - Operate VNF operation does consider current VNF state when validating requests
CSCvp75438	ESC multi-hop upgrade across 4.1 fails (database patching required to recover)

CSCvp54610	ETSI: Under high load, operations may remain in PROCESSING state after successful completion
CSCvp44185	Service stayed at inert state after vm recovery failed
CSCvp37193	Amendment required in etsi-vnfm.log to print result 204 during delete package subscription
CSCvp35873	Invalid Accept header in Get All Packages GET request
CSCvp33389	Portal initiated VM stop (service active) can leave VM in unrecoverable state
CSCvp33380	VMs can get stuck in error state when Portal is used to start VMs while service is stopped
CSCvp27828	CSP2100: Only on fresh ESC, unable to delete-dep when SERVICE_INERT_STATE
CSCvp27323	Uploading same file to the Portal while on same page is ignored
CSCvp27311	ESC Portal mis-calculates VM status numbers
CSCvp20158	Not able to see VIM details under Portal Resources after creating 1st VIM downstream of ESC boot
CSCvp14877	ETSI: Modify VNF information request isAutohealEnabled/isAutoscaleEnabled properties not honoured
CSCvo86802	ESC selects the wrong gateway during day 0 token replacement with multiple subnets
CSCvo77501	ETSI: Alarms are not generated after ESC upgrade for existing deployments
CSCvo00655	Deployment IP addresses not displayed on Portal when deployment ETSI or uses dual stack feature
CSCvq03858	ESC does not boot on OS Cinder volume created using version 3 endpoint
CSCvp49216	ETSI: instantiate requests still fail after default vim connector is created
CSCvp17468	libssh2 SSH_MSG_CHANNEL_REQUEST Packet Handling Out-of-Bounds Read V
CSCvp17322	libssh2 Keyboard Interactive Response Messages Integer Overflow Vuln
CSCvp12608	libssh2 _libssh2_transport_read() Integer Overflow Vulnerability
CSCvp11989	libssh2 Keyboard Interactive Handling Integer Overflow Vulnerability
CSCvp09446	ETSI: Change ext VNF connectivity for one of many interfaces under same extVirtLink updates all

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:
1. In the Search For field, enter a keyword and press Return. (Leave the other fields empty).
 2. 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/cbsshelphelp.html>

Accessibility Features in Cisco ESC

For a list of accessibility features in Cisco ESC 5.0, 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>.

