



Signaling Delivery Controller

Release Notes

5.2 CF7

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About this Document

Document Name: F5 Signaling Delivery Controller Release Notes

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Document Objectives

This document provides information about the features introduced, known issues, and limitations included in the F5 SDC 5.2 release.


Document History

Revision Number	Change Description	Change Location

Conventions

The style conventions used in this document are detailed in Table 1.

Table 1: Conventions

Convention	Use
Normal Text Bold	Names of menus, commands, buttons, user-initiated CLI commands and other elements of the user interface
<i>Normal Text Italic</i>	Links to figures, tables, and sections in the document, as well as references to other documents
Script	Language scripts
Courier	File names
 Note:	Notes which offer an additional explanation or a hint on how to overcome a common problem




Convention	Use
 Warning:	Warnings which indicate potentially damaging user operations and explain how to avoid them



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1. Release Information

This build consists of the following F5 SDC product software packages:

- Installer: salt-srv5.2_7-1.noarch.rpm
- SDC Software: sdc5.2_7_1-5.2_7-1.x86_64.rpm
- Tripo: Tripo-1.5.0-57.x86_64.rpm

1.1 ISO Image Information (Bare Metal Installations)

The F5 SDC software for bare metal installations is packaged and supplied as an ISO image.

The following information describes the ISO image provided to install this release:

- Filename: iso-5.2_7-1.iso
- MD5: 97cb137e464da116ac50132db9f2ecd6
- Date: Dec 9, 2024 04:45:47 AM
- Size: 2,780,635,136 bytes

1.2 QCOW2 Image Information (OpenStack Virtual Installations)

The F5 SDC software for virtual OpenStack installations is packaged and supplied as two QCOW images – master and minion.

The following information describes the two QCOW images provided to install this release:

- Filename: master-5.2_7-1.qcow2
- MD5: e0113c0110aca9bc3e5ab6ff40b4250e
- Date: Dec 9, 2024 04:54:40 AM



- Size: 4,905,107,456 bytes
- Filename: minion-5.2_7-1.qcow2
- MD5: 1b85e15d50ce4b6c5e6e3f155550368a
- Date: Dec 9, 2024 04:54:04 AM
- Size: 2,934,964,224 bytes

1.3 Supported Browsers

The F5 SDC Web UI is supported by the following browsers:

- Internet Explorer: Version 1909 OS build 18363.1316
- Microsoft Edge: Version 88.0.705.56 (Official build) (64-bit)
- Mozilla Firefox 85.0
- Google Chrome: Version 88.0.4324.104 (Official Build) (64-bit)

1.4 Supported Operating Systems

Bare Metal deployments of SDC 5.2 are certified to run on the following operating system:

- Red Hat Enterprise Linux (RHEL) 8.10 64 bit

1.5 Java Version

SDC supports java-1.8.0-openjdk-1.8.0.432.b06-2

1.6 Tomcat Version

The supported Tomcat version is 8.5.96-24.x86_64.

1.7 Cassandra Version

The installed Cassandra version is 4.0.5.

1.8 ELK Component Versions

The current supported packages and versions are:



- Elastic search: elasticsearch-7.17.8-1.x86_64
- Kibana: kibana-7.17.8-1.x86_64
- Fluent: td-agent-3.8.0-0.el8.x86_64

1.9 Supported Firmware Versions



Note: F5 will not support HPE hardware that is no longer supported by the vendor.

This is due to HPE and RedHat Life Cycle Policy changes:

https://techlibrary.hpe.com/us/en/enterprise/servers/supportmatrix/redhat_linux.aspx

The following firmware is certified to run with BL Gen10-Synergy 480 Plus:

Firmware Type	Version
Synergy 4820C 10/20/25Gb CNA	8.55.22
iLO5	2.44
HPE Smart Array P204i-c SR Gen10	3.53
System ROM	I44 v1.40 (04/28/2021)

The following firmware is certified to run with DL Gen9:

Firmware Type	Version
HPE Ethernet 1Gb 4-port 331FLR Adapter -	20.19.51
HPE Ethernet 1Gb 4-port 331i Adapter - NIC	20.19.51
iLO	2.80 Jan 25 2022
Server Platform Services (SPS) Firmware	3.0.6.267.1
Smart Array P440ar Controller	7.00



Firmware Type	Version
System ROM	P89 v2.92 (11/23/2021)

The following firmware is certified to run with DL Gen10:

Firmware Type	Version
HP Ethernet 1Gb 4- port 331FLR Adapter	20.19.51
HP Ethernet 1Gb 4- port 331T Adapter	20.19.51
HPE Ethernet 1Gb 4-port 331i Adapter - NIC	20.19.51
HPE Smart Array P408i-a SR Gen10	3.53
iLO 5	2.44 Apr 30 2021
Server Platform Services (SPS) Firmware	4.1.4.423
System ROM	U30 v2.42 (01/23/2021)



2. What's New in This Release?

This section describes the changes implemented in the F5[®] Traffix[®] Signaling Delivery Controller[™] (SDC) 5.2 release.

2.1 Redhat Upgrade

The Redhat operation system was upgraded to version 8.10.



3. Fixed Bugs

This section describes the bug fixes that are included in Release 5.2.

3.1 Bug Fixes in CF 6

ID	Description	Related ID
SDC-2347	Previously, Kibana logrotate was disabled. Now, Kibana logrotate is enabled.	

3.2 Bug Fixes in CF 5

ID	Description	Related ID
SDC-2253	Previously, when editing a virtual server using a SOAP UI request the below warnings appear at <code>/var/log/rsyslog/<NODE NAME>.tomcat.webuilog.log:</code> 2023-03-21 10:57:41,390 ERROR [MgmtConsoleCpfConnector] - Internal warning: protocol Unknown is not supported. 2023-03-21 10:57:45,308 ERROR [MgmtConsoleCpfConnector] - Internal warning: protocol SIGTRAN is not supported. 2023-03-21 10:57:47,495 ERROR [MgmtConsoleCpfConnector] - Internal warning: protocol GTP is not supported. 2023-03-21 10:57:48,770 ERROR [MgmtConsoleCpfConnector] - Internal warning: protocol EAP is not supported.	



ID	Description	Related ID
	<p>2023-03-21 10:57:51,802 ERROR</p> <p>[MgmtConsoleCpfConnector] - Internal warning: protocol DiameterTest is not supported.</p> <p>Now, the SOAP request is handled properly and there are no warnings.</p>	
SDC-2299	<p>Previously, when trying to access the Tripo WebMgrStat using Telnet to port 5555 or using an empty SOAP request, the WebMgrStat failes and all Tripo processes are restarted.</p> <p>Now, the invalid requests are handled and the Tripo process are not restarted.</p>	SDC-374

3.3 Bug Fixes in CF 4

ID	Description	Related ID
SDC-2081 SDC-2254	<p>Previously, Catalina log files were not managed by the logrotate.</p> <p>Now, Catalina log files are managed by the logrotate.</p>	
SDC-2207	<p>Previously, in case the site topology is configured with 2 networks (public and private/local network) for the same interface, configuration files that are created during the installation process were causing a conflict which causes the VIP to fail/failover every hour – when the Salt reimplemented the configuration (“salt highstate”).</p> <p>Now, the configuration is created properly.</p>	
SDC-2220	<p>Previously, the Tripo start script was failing to delete the <code>/dev/shm/Tripo_*.m</code> files due.</p> <p>Now, the files are deleted properly and Tripo starts es expected.</p>	



ID	Description	Related ID
SDC-2221	<p>Previously, the Cassandra was printing the below warning at startup:</p> <p>Maximum number of memory map areas per process (vm.max_map_count) 262144 is too low.</p> <p>Now, the vm.max_map_count is correct and the warning is not printed.</p>	
SDC-2222	<p>Previously, the Salt Master was negotiating the CQL connection protocol version when connecting to the Cassandra DB.</p> <p>Leading to these warnings:</p> <p>Downgrading core protocol version from 66 to 65</p> <p>Downgrading core protocol version from 65 to 5</p> <p>Now, the version is set to 5.</p>	
SDC-2225	<p>Previously, “sysctl -a” output may show different values then /etc/sysctl.conf.</p> <p>Now, the configuration is loaded properly.</p>	
SDC-2234	<p>Previously, the “defaultGateway” field was marked as ”optional” and in case the field was missing int the topology.xml, the installation was completed successfully with partial network configuration (all interfaces except MGMT and IC were missing IPs).</p> <p>Now, the “defaultGateway” field in the topology.xsd is marked as ”required”.</p>	
SDC-2240	<p>Previously, when adding a new peer profile using the Soap-API, the peer profile is created with wrong Transport Layer SCTP configurations.</p> <p>Now, the peer profile is created correctly.</p>	



ID	Description	Related ID
SDC-2250	<p>Previously, The NMS's occasionally fail to write counters and statistics to the Cassandra DB, leading to missing records in the WebUI reports.</p> <p>Now, NMS's are writing counters and statistics to the Cassandra DB as expected.</p>	

3.4 Bug Fixes in CF 3

ID	Description	Related ID
SDC-2022	FEP OutOfDirectMemoryError	
SDC-1948	Multi-connection peers appearing with wrong IPs in webUI after reconnecting.	
SDC-1949	When a client peer re-connects with either a new IP or a new port, it is not updated in the PeerTable.	
SDC-1951	Client peer port not updating in webUI after re-connecting with a different port.	
SDC-2007	A disconnection between salt minion and master sometimes caused rolling upgrade failure.	

3.5 Bug Fixes in CF 2

ID	Description	Related ID
SDC-1312	<p>Previously, when rebooting a server, all Monit processes started automatically regardless to their previous state.</p> <p>Now, the Monit process's state is kept after reboot.</p>	
SDC-1314	<p>Previously, ELK data was stored at /opt/elk.</p> <p>Now, the data is stored at /data/elk.</p>	



ID	Description	Related ID
SDC-1333	<p>Previously, there were no dedicated logs for keepalived & firewalld.</p> <p>Now, there are dedicated logs at /var/log/ directory.</p>	
SDC-1347	<p>Previously, when setting the peer profile for an existing peer, the new peer profile configuration from the parent - peer profile was not inherited. Now, the default creation of "DualStackEnabled=false" from DiameterConfigurationHandler.java has been removed and the inherited peer profile configuration is enabled.</p>	
SDC-1445	<p>Previously, in a multi-site setting, a session may have expired prematurely when the Tripo reset the session timeout timer using a wrong value, leading to CCR-U requests failures.</p> <p>Now, the timer mechanism is improved so that the original session timeout timer resets correctly upon each GET for session updates, such as CCR-U/RAR requests.</p>	
SDC-1634	<p>Previously, during a Rolling Upgrade, in case one node is successfully completed the tomcatUpgrade phase and fail to upgrade the second for any reason, there was no option to continue/resume the upgrade since the tomcatUpgrade method is identifying the first node was upgraded and exit.</p> <p>Now, the method will continue to check the second node and will upgrade it if needed.</p>	

3.6 Bug Fixes in CF 1

There were no fixed bugs in CF1.





4. Known Issues

This section describes the known issues that are included in Release 5.2.

4.1 Known Issues in CF 5 (or lower)

ID	Description	Related ID
SDC-2422	Rolling Upgrade failed when upgrading from CF5 (or lower) to CF6. See <i>F5 SDC 5.2 Bare Metal System Upgrade</i> - section <i>Upgrade from CF-5 or lower to CF-6 or higher</i> .	

4.2 Known Issues in CF 2

ID	Description	Related ID
SDC-1974	Installing Security Bulletin for CF2 fails when running <code>/opt/traffix/scripts/osRollingUpgrade.sh -l</code> . See SDC-1974 for the workaround.	

4.3 Known Issues in CF 1

ID	Description	Related ID
SDC-965	Occasionally, upon first installation, the Master server may not recognize the Traffix pillar, causing the installation to stop. The following error is generated "Pillar failed to render with the following messages:", "Failed to load ext_pillar traffix_pillar: 'traffix'" Workaround: Run high state manually: salt '*' state.highstate queue=True	
SDC- 1277	Currently, ss command does not show sctp statistics by default. To enable this, run modprobe sctp_diag	



ID	Description	Related ID
	You can opt to use netstat instead of the ss command.	



5. Limitations

This section describes the limitations that are included in Release 5.2.

5.1 Limitations in CF 2

ID	Description	Related ID
SDC-1324	The network name should not exceed 17 characters due to the firewalld zone name length. A validation was added to the /srv/traffix/pillar/traffix_validate.py script.	
SDC-1430	When configuring rhel-system-roles routes (in Bare Metal or Open Stack environments), blackhole routing types will be configured with keepalived routes and will not be supported for static routes. This is due to a third-party limitation with Red Hat and a case has been opened to address this issue.	

5.2 Limitations in CF 1

There were no limitations detected in Release CF 1.



Glossary

The following tables list the common terms and abbreviations used in this document.

Table 2: Common Terms

Term	Definition
Answer	A message sent from one Client/Server Peer to the other following a request message
Client Peer	A physical or virtual addressable entity which consumes AAA services
Data Dictionary	Defines the format of a protocol's message and its validation parameters: structure, number of fields, data format, etc.
Destination Peer	The Client/Server peer to which the message is sent
Geo Redundancy	A mode of operation in which more than one geographical location is used in case one site fails
Master Session	The session for which the routing selection is performed based on the routing rules (Slave Sessions are applied with routing rules inherited from the Master Session)
Orchestrator	A workflow management solution to automate the creation, monitoring, and deployment of resources in your environment
Origin Peer	The peer from which the message is received
Pool	A group of Server Peers
QCOW2	A file format for disk image files
RADIUS	Remote Authentication Dial In User Service
REST	Representation of a resource between a client and server (R epresentational S tate T ransfer)
Request	A message sent from one Client/Server peer to the other, followed by an answer message
RPM	RPM Package Manager



Term	Definition
Salt-API	Manages and communicates between an Orchestrator and network master and minion servers
SDC Site	The entire list of entities working in a single site
Server Peer	A physical or virtual addressable entity which provides AAA services
Session	An interactive information interchange between entities
Slave (Bound) Session	A session which inherits properties from a master session
Transaction	A request message followed by an answer message
Tripo	Session data repository
Virtual Server	A binding point used by SDC to communicate with the Remote Peers (Clients and Servers)

Table 3: Abbreviations

Term	Definition
AAA	Authentication, Authorization and Accounting
ACL	Access Control List
AF	Application Function
API	Application Programming Interface
AVP	Attribute Value Pair
CLI	Command Line Interface
CPF	Control Plane Function
DEA	Diameter Edge Agent
DRA	Diameter Routing Agent



Term	Definition
EMS Site	Element Management System Site
FEP-In	In-Front End Proxy
FEP-Out	Out-Front End Proxy
HA	High Availability
HSS	Home Subscriber Server
HTTP	Hypertext Transfer Protocol
IaaS	Infrastructure as a Service
IMS	IP Multimedia Subsystem
JMS	Java Message Service
KPI	Key Performance Indicator
LDAP	Lightweight Directory Access Protocol
LTE	Long Term Evolution
MME	Mobility Management Entity
NGN	Next Generation Networking
Node	Physical or virtual addressable entity
OAM	Operation, Administration and Maintenance
OCS	Online Charging System
PCEF	Policy and Charging Enforcement Function
PCRF	Policy and Charging Rules Function
PLMN	Public Land Mobile Network
SCCP	Signaling Connection Control Part
SCTP	Stream Control Transmission Protocol
SDC	Signaling Delivery Controller



Term	Definition
SDC Site	The entire list of entities working in a single site
SNMP	Simple Network Management Protocol
SS7	Signaling System No. 7
TCP	Transmission Control Protocol
TLS	Transport Layer Security
UDP	User Datagram Protocol
UE	User Equipment
URI	Universal Resource Identification.
VIP	Virtual IP
VNFC	Virtualized Network Function Component
VPLMN	Visited Public Land Mobile Network
Web UI	Web User Interface
WS	Web Service