FRAFOS ABC SBC Release Notes

Release 5.4.13

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Contents

For a detailed list of all changes and fixes, please check the changelog.

Chapter 1

Common container changes

1.1 Custom hooks in container init scripts

It is possible to hook scripts into container initialization process. These scripts are useful for configuring non-standard container behaviors, such as source-based routing or specific DNS configurations.

Chapter 2

Cluster Config Manager / GUI changes

2.1 Cluster Config Manager REST API

The Cluster Config Manager now provides REST API interface alongside XML-RPC, allowing to configure Call Agents, TLS Profiles, Interfaces, Nodes and Provisioned tables.

2.2 Removed support for 4.3 - 4.6 SBCs

Support for generating configurations for the unsupported ABC SBC releases 4.3 - 4.6 has been removed. These versions can no longer be maintained by Cluster Config Manager 5.4.

Note: The certified 4.2 ABC SBC nodes remain supported.

2.3 Configuration versioning

The Cluster Config Manager system status page ('Monitoring → System status') no longer displays configuration version numbers. Starting from version 5.0, ABC SBC configurations are node-specific, and there is no need for a version change if a new configuration does not impact a specific node. This approach may result in different nodes showing different configuration versions, yet all remain current and up-to-date.

2.4 Changed default option values

Disk persistence for storing call and registration state information, which ensures data remains intact through container restarts or Redis process restarts, is now enabled by default. If you prefer to keep this feature disabled, please update your preferences using the Global Config setting under the SEMS tab.

2.5 Search for config options

A search field has been added to the 'Config → Global config' and 'CCM → CCM Config' pages to simplify option discovery across tabs. Typing into this field presents a list of matching options, facilitating quick navigation.

2.6 Searchable drop-down for adding new action to A/C rule

The drop-down list for adding new actions to an A/C rule is now searchable. Typing into this field filters the list to actions containing the entered text.

2.7 Nodes screen changes

The Nodes screen has been redesigned for improved access to all node-related actions:

- Functionality from 'System → Config push' and 'System → Administration' screens have been moved to 'System → Nodes' screen.
- 'System → Config push' and 'System → Administration' screens have been removed.
- Cluster config parameters for nodes can be edited also on Nodes screen.

2.8 Filter Nodes by template parameter

The Nodes and Config Groups screens contain a new "Filter by template parameter" button, enabling ABC SBC node filtering based on cluster config parameter values.

2.9 Possibility to set node's contact address

It is possible to change node's address used by Cluster Config Manager for monitoring queries ('Monitoring → Registration cache', 'Monitoring → Live calls', ...) or for pushing configuration to the ABC SBC.

This may be useful if there is a NAT between ABC SBC and Cluster Config Manager, and ABC SBC is unaware of the correct address reachable from outside.

2.10 Export JSON configuration for a node

It is possible to export JSON configuration for an ABC SBC node from Cluster Config Manager GUI. The returned JSON file then can be applied manually on the appropriate SBC node. This is useful in situations where the node cannot communicate with the Cluster Config Manager directly, for example in case of misconfigured (or expired) TLS certificates if TLS certificate verification between nodes and Cluster Config Manager is enforced.

2.11 Cluster Config Manager email settings verification

There is a new button "Send testing email" on the "Email" tab in Cluster Config Manager configuration that can be used to verify the correctness of email configuration.

2.12 Cluster Config Manager config changes save hint

Upon changes of Cluster Config Manager configuration (new GUI user, user permission change, ...) there is a warning displayed that asks to save the changed configuration into a config backup. Please note, that these changes take effect immediately upon saving and do not require activation unlike SBC configuration that requires activation and backup is created automatically after that.

2.13 Status bar improvement

The status of Cluster Config Manager is now displayed separately from the status of ABC SBC nodes in the status line.

2.14 Restructuring of documentation

The documentation has been restructured: there is a documentation index available under 'Help → Documentation' pointing to specific parts of the ABC SBC handbook (available even as separate PDFs) and pointing to the ABC SBC and Cluster Config Manager API reference.

Additionally, a new page has been added to the 'Help' menu that summarizes the various ways to contact Frafos support.

2.15 Support for PKCS #12

Support for PKCS #12 file format was added to TLS profile GUI page.

2.16 Printable config report

A printable report, which includes details of cluster configurations such as rules, routing tables, interfaces, and call agents, can be generated by clicking the 'Printable config report' button on the 'Overview' GUI page.

2.17 Show version of provisioned tables used by nodes

Cluster Config Manager enables the display of the currently used versions of provisioned tables for each SBC node. This information can be accessed on the 'System status' GUI page by clicking the "version" button in the "Prov tables" column.

2.18 GUI warning about possible SEMS restart

GUI options that could potentially trigger a restart of SEMS (the core process responsible for signaling and media processing) on the SBC nodes are marked with an exclamation mark. This notation alerts administrators to the potential risk of updating these options at any time. To minimize the impact on customers, such changes should be made during a maintenance window only.

2.19 Uploaded config backup is highlighted

A configuration backup uploaded to Cluster Config Manager is highlighted after the upload. This feature aids in locating the specific configuration backup among the list of backups already present in Cluster Config Manager, as the backups are organized according to their creation time.

2.20 History of configuration changes

The 'System → Config Management' GUI page allows to view configuration changes that were done in particular configuration backup compared to the previous one.

2.21 Pop-up with pending configuration changes

A pop-up window displaying a list of pending configuration changes can be shown. This window can be accessed by clicking the "Inspect changes" button in the GUI, provided there are configuration changes awaiting activation.

Chapter 3

ABC SBC changes

3.1 Migration to nftables

The ABC SBC firewall now uses newer kernel backend nftables instead of iptables. Consequently, the global configuration option “Drop UDP signaling packets not looking like SIP” has been removed, as this functionality is not supported by nftables. The option allowing to generate event if some packet was blacklisted was dropped too, as it cannot be reliably used under containers with nftables.

3.2 Gateway heartbeating for HA

For high availability (HA), a new option has been introduced to configure gateway heartbeating. This feature enables periodic checks of gateway reachability and initiates an HA switchover if the gateway becomes unreachable from the master node.

3.3 Tuning HA advert interval

It is now possible to adjust the HA advertisement interval, allowing for faster detection if an HA node becomes unreachable.

3.4 HA state can be saved periodically

The Redis content, including call state and registrations used for high availability (HA), can now be saved at regular intervals. A new global configuration option, “Interval in seconds for saving if persistent storage enabled,” has been introduced for this purpose. Previously, the content was only saved when the Redis process was terminating, which could lead to issues if the container did not terminate properly.

3.5 Fixing host part of Contact in 3xx replies

The action "Set Contact-URI host" can be utilized to correct the host part of URIs in the Contact header of negative responses. This is particularly useful for redirect (3xx) responses, allowing the Contact to be updated to point back to the SBC, which then handles the redirected traffic once more.

3.6 Continuous RTP statistics

ABC SBC can now continuously report RTP statistics to ABC Monitor, even for ongoing calls, through a new `rtp-stats` event. This is a significant enhancement over the previous method of reporting only at `call-end`. It enables continuous monitoring of call quality, allowing for immediate action if necessary.

3.7 SIP message body modification

It is now possible to add or modify non-SDP body parts of messages in INVITE-based dialogs. However, this functionality has not been implemented for other types of dialogs or for out-of-dialog messages.

3.8 Absorb UPDATE requests

ABC SBC is now capable of absorbing in-dialog UPDATE requests in a similar manner to how it has been handling re-INVITE requests.

3.9 More granular DNS resolver configuration

DNS resolver settings can now be configured for each signaling interface or call agent, enabling improved integration with multiple trunks that use DNS names from different providers.

3.10 HA support for transcoded calls

High Availability (HA) support for transcoded calls has been introduced: transcoded calls now continue seamlessly after an HA switchover or a SEMS process restart.

3.11 HA support for SIPREC

High Availability (HA) support for SIPREC recording has been added. Following an HA switchover or SEMS process restart, recording to the configured recording server will continue without interruption.

3.12 SIPREC metadata templates

New options to the "Activate audio recording" action have been introduced to configure metadata being sent to SIPREC server in more details. Newly, SIP message body templates can be used for this purpose.

3.13 Configurable transport in "Force next hop" action

The action "Force next hop" now enables explicit configuration of the transport protocol to be used for sending out SIP traffic. Previously, this was only achievable by hard-coding the transport in the Host field using an undocumented next-hop syntax.

3.14 "Header" condition can match multiple header occurrences

The "Header" condition has been enhanced with new operators, "RegExp All of" and "RegExp Any of", which allow for matching headers that contain multiple values.

3.15 "Change SSRC" option added to "Enable RTP anchoring"

A new option "Change SSRC" was added to "Enable RTP anchoring" action. This option instructs ABC SBC to use its own SSRC value different from the incoming one.

Please note that for most use cases using "Sticky Stream SSRC (on leg)" action might be the preferred method for changing SSRC.

3.16 Timestamp format changed in call related events

The format of timestamps in call-related events has been updated to include the time zone. This change may cause issues if a 5.4 ABC SBC is connected to an older ABC Monitor.

3.17 Improved service monitoring

The monitoring of services running on the ABC SBC has been improved and a possible error can be easily detected from the Cluster Config Manager's System status GUI screen.

3.18 Improved destination monitoring and blacklisting

Call agent parameters related to destination monitoring, failover and blacklisting were separated, so these can be configured more independently now.

3.19 Improved “Replace SDP session attribute” action payload ID handling

If the “Replace SDP session attribute” action is used to map RTP payload IDs in SDP offer, ABC SBC maps the payloads IDs back in the SDP answer, to avoid asymmetric payload IDs being used for the call.