GENESYS™

Stat Server

Genesys Configuration Options Current

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RTME Options Reference

Welcome to the Options Reference for Stat Server. This document provides full information about all the configuration options that are set on the Stat Server application object and in Stat Server–related configuration sections on other objects, such as DNs.

Stat Server Application

You are not required to configure any options to start a Stat Server application.

Options for this component are contained in the following configuration sections:

- common
- db-direct-connection
- ha
- java-config
- java-extensions
- log
- log-extended
- log-filter
- log-filter-data
- OCCExtension
- overload
- sml
- statserver

> ### Tip
> In the summary table(s) below, type in the Search box to quickly find options, configuration sections, or other values, and/or click a column name to sort the table. Click an option name to link to a full description of the option. Be aware that the default and valid values are the values in effect with the latest release of the software and may have changed since the release you have; refer to the full description of the option to see information for earlier releases.
>
> **Power users: Download a CSV file** containing default and valid values and descriptions.

The following options are configured at the application level (in other words, on the application object).

Section	Option	Default	Changes Take Effect
common	enable-ipv6	0 (for backward compatibility)	Immediately
common	rebind-delay	10	After restart
db-direct-connection	debug	0	After restart
db-direct-connection	enable	off	After restart
db-direct-connection	verbose	0	After restart
ha	addp-remote-timeout	10	Immediately
ha	addp-timeout	10	Immediately
ha	addp-trace	both	Immediately
ha	chunk-size	5000	Immediately
ha	chunk-timeout	1	Immediately
ha	connect-timeout	2	Immediately
ha	session-expiration-period	1800	Immediately
ha	session-expiration-timeout	120	Immediately
java-config	java-extension-loading-timeout	60	Immediately
java-config	java-extensions-dir	./java/ext	After restart, or upon setting the enable-java configuration option to true.
java-config	java-libraries-dir	./java/lib	After restart, or upon setting the enable-java configuration option to true.
java-config	jvm-path	No default value	After restart, or upon setting the enable-java configuration option to true.
java-extensions	<filename>.jar	No default value	During Java Extension initialization phase
java-extensions	<Name>	No default value	During Java Extension initialization phase
log	alarm	No default value	Immediately
log	all	No default value	Immediately
log	buffering	true	Immediately
log	check-point	1	Immediately
log	compatible-output-priority	false	Immediately
log	debug	No default value	Immediately
log	enable-thread	false	Immediately
Section	**Option**	**Default**	**Changes Take Effect**

Section	Option	Default	Changes Take Effect
log	expire	10	Immediately
log	interaction	No default value	Immediately
log	keep-startup-file	false	After restart
log	memory	No default value	Immediately
log	memory-storage-size	2 MB	When memory output is created
log	messagefile	StatServer.lms	After restart or Immediately, if Stat Server cannot locate the statserver.lms file at startup
log	message_format	short	Immediately
log	print-attributes	false	Immediately
log	segment	100 MB	Immediately
log	spool	The Stat Server working directory	Immediately
log	standard	No default value	Immediately
log	throttle-period	30	Immediately
log	throttle-threshold	5000	Immediately
log	time_convert	local	Immediately
log	time_format	time	Immediately
log	trace	No default value	Immediately
log	verbose	all	Immediately
log	x-conn-debug-all	0	After restart
log	x-conn-debug-api	0	After restart
log	x-conn-debug-dns	0	After restart
log	x-conn-debug-open	0	After restart
log	x-conn-debug-security	0	After restart
log	x-conn-debug-select	0	After restart
log	x-conn-debug-timers	0	After restart
log	x-conn-debug-write	0	After restart
log-extended	level-reassign-disable	false	Immediately
log-extended	level-reassign-<eventID>	Default value of log event <eventID>. Refer to the *Common Log Events Help* or statserver.lms (located in the directory where Stat Server is installed) for a listing of each of Stat Server's the default	Immediately
Section	**Option**	**Default**	**Changes Take Effect**

Section	Option	Default	Changes Take Effect
		levels.	
log-filter	default-filter-type	copy	Immediately
log-filter	filtering	true	Immediately, if application is subscribed to notifications that this option has been changed.
log-filter-data	<key name>	copy	Immediately
OCCExtension		standard	After restart
OCCExtension	assignment-reset-delay	30000	After restart
OCCExtension	java-extension-jar	OCCStatExtension.jar	After restart
OCCExtension	print-level	standard	After restart
overload	allow-new-connections-during-overload	true	Immediately
overload	allow-new-requests-during-overload	true	Immediately
overload	cpu-cooldown-cycles	30	After restart
overload	cpu-poll-timeout	10	After restart
overload	cpu-threshold-high	80	After restart
overload	cpu-threshold-low	60	After restart
overload	cut-debug-log	true	Immediately
overload	protection	false	Immediately
overload	qos-default-overload-policy	0	After restart
overload	qos-recovery-enable-lms-messages	false	After restart
sml	hangup-restart	true	Immediately
sml	heartbeat-period	0	Immediately
sml	suspending-wait-timeout	10	Immediately
statserver		5000 (SQL statements)	After restart
statserver		5000 (SQL statements)	After restart
statserver		no	After restart
statserver	accept-clients-in-backup-mode	yes	After restart
statserver	acw-absorb-mode	0	After restart
statserver	allow-asm-outbound-on-established	true	After restart
statserver	allow-vq-orig-dns-from-environment	yes	After restart
Section	**Option**	**Default**	**Changes Take Effect**

Section	Option	Default	Changes Take Effect
statserver	auto-backup-interval	15	After restart
statserver	backup-file-aggregates-store	true	Immediately upon notification
statserver	backup-file-name	ssbackup.000	After restart
statserver	binding-threshold	10	After restart
statserver	capacity-treat-acw-as-interaction	no	After restart
statserver	check-stuck-calls	no	Immediately upon notification
statserver	check-stuck-calls-duration	600	After restart
statserver	check-stuck-calls-frequency	600	After restart
statserver	check-vq-stuck-calls-frequency	600	After restart
statserver	config-reload-delay-if-primary	false	Immediately
statserver	consult-acw-mode	always	After restart
statserver	db-timeout	30	After restart
statserver	db-txn-max-retries	3	After restart
statserver	debug-level	Init	Immediately upon notification
statserver	DefaultAgentSPT	... (an ellipsis)	After restart
statserver	DefaultDNSPT	... (an ellipsis)	After restart
statserver	DefaultRPSPT	... (an ellipsis)	After restart
statserver	disconnect-from-lca-on-history-log-expired	false	After restart
statserver	do-backup-in-background	yes	After restart
statserver	enable-binding	no	Immediately upon notification
statserver	enable-java	false	After restart, or upon setting the value to true.
statserver	filters-allow-wildcards-in-values	no	After restart
statserver	generate-stat-validity-events	yes	After restart
statserver	generate-transfer-taken-on-ringing	yes	After restart
statserver	identity-in-login-table	off	After restart
statserver	ignore-disabled-objects-	no	After restart
Section	**Option**	**Default**	**Changes Take Effect**

Section	Option	Default	Changes Take Effect
	in-group-statistics		
statserver	ignore-disabled-objects-in-queue-statistics	no	After restart
statserver	ignore-off-hook-on-position	no	After restart
statserver	interaction-agent-party-in-progress-on-tenant-max-number	2147483647	After restart
statserver	interaction-agent-party-in-progress-on-tenant-media-list	chat	After restart
statserver	interaction-wait-on-sa-max-number	2147483647	After restart
statserver	interaction-wait-on-sa-media-list	"chat"	After restart
statserver	interaction-wait-on-tenant-max-number	2147483647	After restart
statserver	interaction-wait-on-tenant-media-list	"chat"	After restart
statserver	ixn-id-in-status-table	off	Immediately upon notification
statserver	load-balance-aht	90	After restart (when defined within the Stat Server Application object)
statserver	local-time-in-status-table	off	Immediately upon notification
statserver	local-time-in-status-table	off	Immediately upon notification
statserver	login-table	off	Immediately upon notification
statserver	management-port	3031	After restart
statserver	max-client-connections	0	After restart
statserver	max-unsent-sql-statements	100000 (SQL statements)	After restart
statserver	mm-agent-logout-optimization	false	After restart
statserver	mm-media-list-lower-case	true	After restart
statserver	mm-skip-reason-changed-events	no (for backward compatibility)	After restart
statserver	multimedia-activity-in-status-table	yes	After restart
statserver	nec-position-extension-	no	After restart
Section	**Option**	**Default**	**Changes Take Effect**

Section	Option	Default	Changes Take Effect
	linked		
statserver	old-stats-remove	yes	Immediately
statserver	old-stats-remove-interval	4320	After restart
statserver	position-extension-linked	yes	After restart
statserver	qinfo-table	off	Immediately upon notification
statserver	queue-disable-dcid-for-missed-calls	no	After restart
statserver	queue-use-pseudo-actions	true	After restart
statserver	reconnect-timeout	10	After restart
statserver	reg-delay	0	After restart
statserver	reg-dns-chunk-delay	10	After restart
statserver	reg-dns-chunk-volume	1000	After restart
statserver	reg-error-delay	0	After restart
statserver	reg-error-max-count	0	After restart
statserver	rp-handle-queueing-events	no	After restart
statserver	send-timeout	300	After restart
statserver	show-attached-data	no	Immediately upon notification
statserver	show-queued-interactions	no	Immediately upon notification
statserver	stat-file-show-clients-list	false	Immediately
statserver	stat-file-show-options	false	Immediately
statserver	stat-file-timeout	10	Immediately
statserver	status-table	off	Immediately
statserver	status-table-update-end-time-at-end-only	no	After restart
statserver	subscribe-for-all-ixn-server-events	no	After restart
statserver	suppress-agent-status-updates-for-ixn-server	no	Immediately upon notification
statserver	suppress-user-data	undefined	Upon DN re-registration
statserver	time-format	%m/%d/%Y %H:%M:%S	After restart
statserver	use-server-id		Immediately
statserver	vag-statistics-active-agents-only	no	After restart
Section	Option	Default	Changes Take Effect

Section	Option	Default	Changes Take Effect
statserver	voice-reasons-table	no	Immediately upon notification
statserver	vq-clean-call-details-upon-party-changed	yes	After restart
statserver	vq-ignore-third-party-dn	yes	Upon DN re-registration
statserver	vq-treat-unknown-third-party-dn-as-agent-dn	yes	After restart
statserver	vq-use-alt-enter-time	no	After restart
statserver	warn-unsent-sql-statements	5000 (SQL statements)	After restart
statserver	warn-unsent-sql-statements	5000 (SQL statements)	After restart
statserver	xx-disconnect-clients-on-ixn-server-disconnect	no	After restart
Section	**Option**	**Default**	**Changes Take Effect**

Other Configuration Objects

Switch

The following options are configured on the Switch object.

Section	Option	Default	Changes Take Effect
statserver	position-extension-linked	Depends on the switch type (see description)	On Stat Server start
statserver	suppress-user-data	no	Upon DN re-registration
Section	**Option**	**Default**	**Changes Take Effect**

DN

The following options are configured on the DN object.

Section	Option	Default	Changes Take Effect
statserver	media-type	No default value	Immediately upon notification
statserver	use-alt-enter-time	no	Immediately upon notification
Section	**Option**	**Default**	**Changes Take Effect**

Section	Option	Default	Changes Take Effect
TServer	multimedia	no	Immediately upon notification
Section	**Option**	**Default**	**Changes Take Effect**

common

This section is defined on the `Options` tab of the Stat Server Application object and has to be named `common`.

- enable-ipv6
- rebind-delay

enable-ipv6

Default Value: 0 (for backward compatibility)
Valid Values: 0 (off), 1 (on)
Changes Take Effect: Immediately

Specifies that Stat Server is to use TCP/IP v6 for relaying packets of information across network boundaries to and from the Management Layer.

Note: This option is supported for use on Linux, Solaris 8+, Windows Vista, and Windows Server 2008+ operating systems only.

Refer to the Framework Deployment Guide for more information about this component.

rebind-delay

Default Value: 10
Valid Values: 0 - 600
Changes Take Effect: After restart

Specifies the delay, in seconds, between socket-bind operations that are being executed by Stat Server. Use this option if the Stat Server has not been able to occupy a configured port successfully.

Warning! Use this option only when requested to do so by Genesys Customer Care.

db-direct-connection

The [db-direct-connection] section is defined on the Options tab of the Stat Server Application object.

Stat Server 8.5 is capable of working with the DBMS through:

- A direct database connection, without using DB Server. Make sure to install the corresponding DBMS client software on the Stat Server host for direct database connection. Refer to Framework Database Connectivity Reference Guide for more information.
- An indirect database connection, using DB Server (backward compatibility mode)

By default, Stat Server connects through a configured DB Server. To enable the direct database connection, create the [db-direct-connection] section.

- debug
- enable
- verbose

debug

Default Value: 0
Valid Values: 0 - 5
Changes Take Effect: After restart

This option controls advanced debugging information such as function calls.

enable

Default Value: off
Valid Values: on, off
Changes Take Effect: After restart

This option enables direct database connection to the DBMS.

verbose

Default Value: 0
Valid Values: 0 - 4
Changes Take Effect: After restart

This option controls the SQL statement and message sending debug information.

See also options listed in the [statserver] section to configure a Stat Server application to write data to a database:

- binding-threshold
- enable-binding
- identity-in-login-table
- ixn-id-in-status-table
- local-time-in-status-table
- login-table
- max-unsent-sql-statements
- multimedia-activity-in-status-table
- qinfo-table
- status-table
- status-table-update-end-time-at-end-only
- time-format
- use-server-id
- voice-reasons-table
- warn-unsent-sql-statements

Starting with the 8.5 release Stat Server installation package includes the following additional executables:

- On Unix
    - dbclient_db2_32
    - dbclient_db2_64
    - dbclient_oracle_32
    - dbclient_oracle_64
- On Windows
    - dbclient_db2.exe

- dbclient_oracle.exe

- dbclient_msql.exe

These executables are located in the same directory as your Stat Server executable.

The appropriate executable is used to establish the connection to a particular database, using DB Info provided in the connected Database Access Point.

See Framework Database Connectivity Reference Guide for more information.

java-config

The [java-config] section is defined on the Options tab of the Stat Server Application object.

- java-extension-loading-timeout
- java-extensions-dir
- java-libraries-dir
- jvm-path

java-extension-loading-timeout

Default Value: 60
Valid Values: Any positive integer less than 2147483648 (2^{31})
Changes Take Effect: Immediately
Modified: 8.5.109. Previously, the default value was 20.

Specifies the length of time, in seconds, that Stat Server allocates for loading Java Extensions. If an Extension does not load within this timeout, Stat Server sends a message to its log indicating this. Stat Server makes no further attempts to load the Extension during runtime.

Only under rare circumstances should you change this option, such as if your particular Java Extension is very large or if its execution is very time consuming.

java-extensions-dir

Default Value: ./java/ext
Valid Values: Any valid, fully specified directory path
Changes Take Effect: After restart, or upon setting the enable-java configuration option to true.
Dependencies: enable-java = true

The value of this option must contain the path to the directory where all Java Extensions are stored.

java-libraries-dir

Default Value: ./java/lib
Valid Values: Any valid, fully specified directory path
Changes Take Effect: After restart, or upon setting the enable-java configuration option to true.
Dependencies: enable-java = true

The value of this option must contain the path to the directory where all Java libraries are stored.

jvm-path

Default Value: No default value
Valid Values: Any valid, fully specified path (including file name) to the particular file
Changes Take Effect: After restart, or upon setting the enable-java configuration option to true.
Dependencies: enable-java = true

The value of this option must contain the path to JVM:

- `jvm.dll` on Windows

- `libjava.so`, `libjvm.so`, `libjvm.a`, or `libjvm.sl` on UNIX

Starting with release 8.5.101, the JVM will not be initialized if the option is set to a relative path (absolute paths are mandatory).

java-extensions

The [java-extensions] section is defined on the Options tab of the Stat Server Application object.

- <filename>.jar
- <Name>

<filename>.jar

Default Value: No default value
Valid Values: false, true
Changes Take Effect: During Java Extension initialization phase
Related Options: java-extensions-dir

The name of this Java configuration option is the relative path of the Java Extension jar archive with respect to the SSJE installation directory described with [java-config]/java-extensions-dir. The resulting combined path should point inside the SSJE installation directory (note that on UNIX systems, all symbolic links are resolved). Otherwise, Stat Server logs a security violation message and does not load the corresponding SSJE. Furthermore, if Stat Server cannot match the resulting path to any existing Java Extension configured to be loaded, Stat Server ignores the content of this entire section.

The corresponding value is either false (indicating that Stat Server is not to consider this particular Java Extension) or true (indicating that it is). The path is relative to that specified by the java-extensions-dir configuration option—for example, ext1.jar or subdir3/ext3.jar.

If you initially do not set this option when Stat Server first starts, but later set it, Stat Server attempts to dynamically load the extension at runtime. Refer to How to Configure a Particular Java Extension in the Stat Server Deployment Guide for additional information.

<Name>

Default Value: No default value
Valid Values: <Value>
Changes Take Effect: During Java Extension initialization phase

You can specify additional configuration options following the Name/Value format used in other Stat Server sections, where Name is name of the parameter to be passed to SSJE and Value is the parameter's value. If you do specify a value for a parameter in this section, Stat Server converts the

Name/Value pair to Name=Value before passing it to SSJE. If you do not specify a value, Stat Server passes only the name.

jvm-options

The [jvm-options] section is defined on the Options tab of the Stat Server Application object.

The configuration options you specify for this section correspond to the Java executable (java.exe on Windows, java on UNIX), and command-line options specific to your branch and version of JVM. Refer to your JVM documentation to find out its applicable configuration options. For Solaris platforms, set the stack space to at least 4,096K. For example, for HotSpot JVM, configuring the following would accomplish this:

-XX:ThreadStackSize=4096

Note that Genesys neither recommends nor endorses any particular JVM.

Configuration options follow the Name/Value format used in other Stat Server sections, where Name is the name of the Java command-line option. If you specify a value for a named configuration option in this section, Stat Server converts the two to Name=Value before passing the option to JVM. If you do not specify a value, Stat Server passes the name only.

Example 1

Assume that foo is a valid option requiring a value for your Java application. To specify a value of some string, create the following configuration option within the [jvm-options] section of your Stat Server application.

Name = -Dfoo

Value = "some string"

Note: Include quotes in the value's definition, if JVM requires them on the command line.

Example 2

This example demonstrates how to configure an option—the Java HotSpot Client VM—that does not require a value.

Name = -Client

Note: You must include the hyphen if JVM requires it.

Value = <null>

ha

Starting with release 8.5.109, Stat Server supports Hot Standby redundancy for Stat Servers operating in high availability (HA) mode on Windows and Linux platforms. Options that support Hot Standby redundancy are configured in the **[ha]** section. These options are only applicable to Stat Servers configured as HA pair in the Hot Standby redundancy mode. The **[ha]** section is defined on the Options tab of the Stat Server Application object.

See the Hot Standby article in *Stat Server User's Guide* for more information about Stat Servers configured as HA pair in the Hot Standby redundancy mode.

- addp-remote-timeout
- addp-timeout
- addp-trace

- chunk-size
- chunk-timeout
- connect-timeout

- session-expiration-period
- session-expiration-timeout

addp-remote-timeout

Default Value: 10
Valid Values: 1 - 3600
Changes Take Effect: Immediately
Introduced: 8.5.109

If addp is specified for the HA connection, the addp-remote-timeout option specifies the time interval, in seconds, that Stat Server in backup mode instructs the other Stat Server in the redundant pair to use when polling to check the connection between the two servers.

addp-timeout

Default Value: 10
Valid Values: 1 - 3600
Changes Take Effect: Immediately
Introduced: 8.5.109

If addp is specified for the HA connection, the addp-timeout option specifies the time interval, in seconds, that Stat Server in backup mode waits before polling the other Stat Server in the redundant pair.

addp-trace

Default Value: both
Valid Values: local, remote, both, off
Changes Take Effect: Immediately
Introduced: 8.5.109

If addp is specified for the HA connection, the addp-trace option determines whether ADDP messages are written to the primary and backup Stat Server logs:

- **local** ADDP trace occurs on the side of the Stat Server in backup mode.

- **remote** ADDP trace occurs on the side of the Stat Server in primary mode.

- **both** ADDP trace occurs at both the primary and backup Stat Servers.

- **off** Turns ADDP off.

chunk-size

Default Value: 5000
Valid Values: 1 - 100000
Changes Take Effect: Immediately
Introduced: 8.5.109

Sets the number of statistics, processed simultaneously during replication of statistics between primary and backup Stat Server instances.

chunk-timeout

Default Value: 1
Valid Values: 1 - 3600
Changes Take Effect: Immediately
Introduced: 8.5.109

Duration, in seconds, between adjacent chunks during replication of statistics between primary and backup Stat Server instances. Term "chunk" means the number of statistics, processed simultaneously.

connect-timeout

Default Value: 2
Valid Values: 1 - 3600
Changes Take Effect: Immediately
Introduced: 8.5.109

Timeout, in seconds, when the reconnect attempt between Stat Servers, operating in high availability (HA) mode, is made.

session-expiration-period

Default Value: 1800
Valid Values: 0 - 86400
Changes Take Effect: Immediately
Introduced: 8.5.109

Sets the session expiration period, in seconds. When the primary and backup Stat Servers, operating in high availability (HA) mode, cannot reconnect in time specified by the value of this option, the new session with the full statistics replication is initialized. When this option is set to 0 (zero), the lost session expires immediately.

session-expiration-timeout

Default Value: 120
Valid Values: 1 - 3600
Changes Take Effect: Immediately
Introduced: 8.5.109

Specifies, in seconds, how often the session expiration is checked during the time configured in the `session-expiration-period` option.

log

log

- alarm
- all
- buffering
- check-point
- compatible-output-priority
- debug
- enable-thread
- expire
- interaction
- keep-startup-file
- memory

- memory-storage-size
- message_format
- messagefile
- print-attributes
- segment
- spool
- standard
- throttle-period
- throttle-threshold
- time_convert
- time_format

- trace
- verbose
- x-conn-debug-all
- x-conn-debug-api
- x-conn-debug-dns
- x-conn-debug-open
- x-conn-debug-security
- x-conn-debug-select
- x-conn-debug-timers
- x-conn-debug-write

The [log] section is defined on the Options tab of the Stat Server Application object.

This section describes log configuration options that are common to all Genesys server applications and applicable to any Framework server component. Note that to use these options, you must actively set them, manually on the Options tab of the Stat Server Application object within Genesys Administrator. These options are generic options that apply to all Genesys server applications. Refer to the *Configuration Options Reference Manual*, available on the Management Framework page, and to the Genesys Security Deployment Guide for additional information.

For your convenience, the SIP Server product provides a troubleshooting tool that parses the log output of several Genesys servers including Stat Server. Refer to the *SipSpan2 User's Guide*, available on the SIP Server CD, for information on how to use this tool.

See also Log Output Options.

alarm

Default Value: No default value

Valid Values:

- **stdout** Log events are sent to the Standard output (stdout).

- **stderr** Log events are sent to the Standard error output (stderr).

- **network** Log events are sent to Message Server, which can reside anywhere on the network. Message Server stores the log events in the Log Database.

- **memory** Log events are sent to the memory output on the local disk. This is the safest output in terms of the application performance.

- **<filename>** Log events are stored in a file with the specified name. If a path is not specified, the file is created in the application's working directory.

Changes Take Effect: Immediately

Specifies the outputs to which an application sends log events of Alarm level. You must separate log output types with commas when you configure more than one output type.

For example, `alarm = stdout, logfile`

all

Default Value: No default value

Valid Values:

- **stdout** Log events are sent to the Standard output (stdout).

- **stderr** Log events are sent to the Standard error output (stderr).

- **network** Log events are sent to Message Server, which can reside anywhere on the network. Message Server stores the log events in the Log Database.
  Setting the all log level option to the network output enables an application to send log events of the Standard, Interaction, and Trace levels to Message Server. Debug-level log events are neither sent to Message Server nor stored in the Log Database.

- **memory** Log events are sent to the memory output on the local disk. This is the safest output in terms of the application performance.

- **<filename>** Log events are stored in a file with the specified name. If a path is not specified, the file is created in the application's working directory.

Changes Take Effect: Immediately

Specifies the outputs to which Stat Server sends all log events. You must separate log output types with commas when you configure more than one output type.

For example, `all = stdout, logfile`

Note: To ease the troubleshooting process, consider using unique prefixes for log files that different Stat Server applications generate.

buffering

Default Value: true

Valid Values:

- **true** Enables buffering.
- **false** Disables buffering.

Changes Take Effect: Immediately

Turns operating system file buffering on or off. This option applies only to `stderr` and `stdout` output. Setting this option to `true` increases output performance.

Note: When you enable buffering, messages may appear at the console with delay.

check-point

Default Value: 1
Valid Values: 0 - 24
Changes Take Effect: Immediately

Specifies, in hours, how often Stat Server generates a check point log event, to divide the log into sections of equal time. By default, Stat Server generates this log event every hour. Setting the option to 0 prevents the generation of check-point events.

compatible-output-priority

Default Value: false
Valid Values: true, false
Changes Take Effect: Immediately

Specifies whether the application uses 6.x output logic.

Valid values:

- **true**: The log of the level specified by Log Output Options is sent to the specified output.

- **false**: The log of the level specified by Log Output Options and higher levels is sent to the specified output.

For example, you configure the following options in the log section for a 6.x application and for a 8.x application:
```
[log]
verbose=all
debug=file1
standard=file2
```

Stat Server 6.x log file content is as follows:

- `file1` contains debug messages only.
- `file2` contains `standard` messages only.

Stat Server 8.x log file content is as follows:

- `file1` contains debug, `trace`, `interaction`, and `standard` messages.
- `file2` contains `standard` messages only.

Warning! Genesys does not recommend changing the default value of the `compatible-output-priority` option unless you have specific reasons to use the 6.x log output logic—that is, to mimic the output priority as implemented in releases 6.x. Setting this option to true affects log consistency.

debug

Default Value: No default value

Valid Values:

- **stdout** Log events are sent to the Standard output (`stdout`).
- **stderr** Log events are sent to the Standard error output (`stderr`).
- **memory** Log events are sent to the memory output on the local disk. This is the safest output in terms of the application performance.
- **<filename>** Log events are stored in a file with the specified name. If a path is not specified, the file is created in the application's working directory.

Changes Take Effect: Immediately

Specifies the outputs to which an application sends the log events of the Debug level and higher (that is, log events of the `Standard`, `Interaction`, `Trace`, and `Debug` levels). You must separate log output types with commas when you configure more than one output type.

For example, debug = stderr, /usr/local/genesys/logfile

Note: Log events of debug level are never sent to Message Server nor are they stored in the Log Database.

enable-thread

Default Value: false
Valid Values: true, false
Changes Take Effect: Immediately
Introduced: 8.5.106
Related Options: throttle-period, throttle-threshold
Related Links: log throttling

Specifies whether to enable or disable the logging thread. If set to true (the logging thread is enabled), the logs are stored in an internal queue to be written to the specified output by a dedicated logging thread. This setting also enables the log throttling feature, which allows the verbose level to be dynamically reduced when a logging performance issue is detected. Refer to the Framework Management Layer User's Guide for more information about the log throttling feature.

If this option is set to false (the logging thread is disabled), each log is written directly to the outputs by the thread that initiated the log request. This setting also disables the log throttling feature.

expire

Default Value: 10

Valid Values:

- **false** No expiration; all generated segments are stored.
- **<number> file or <number>** Sets the maximum number of log files to store. Specify a number from 1-1000.
- **<number> day** Sets the maximum number of days before log files are deleted. Specify a number from 1-100.

Changes Take Effect: Immediately

Determines whether log files expire. If they do, this option sets the measurement for determining when they expire, along with the maximum number of files (segments) or days before the files are removed. Stat Server ignores this option if you configure log output to be sent to other than a log file.

interaction

Default Value: No default value

Valid Values:

- **stdout** Log events are sent to the Standard output (`stdout`).

- **stderr** Log events are sent to the Standard error output (`stderr`).

- **network** Log events are sent to Message Server, which can reside anywhere on the network. Message Server stores the log events in the Log Database.

- **memory** Log events are sent to the memory output on the local disk. This is the safest output in terms of the application performance.

- **<filename>** Log events are stored in a file with the specified name. If a path is not specified, the file is created in the application's working directory.

Changes Take Effect: Immediately

Specifies the outputs to which an application sends the log events of the `Interaction` level and higher (that is, log events of the `Standard` and `Interaction` levels). You must separate log outputs with commas when you configure more than one output type.

For example, `interaction = stderr, network`

keep-startup-file

Default Value: false

Valid Values:

- **false** No startup segment of the log is kept.

- **true** A startup segment of the log is kept. The size of the segment equals the value of the `segment` option.

- **<number> KB** Sets the maximum size, in kilobytes, for a startup segment of the log.

- **<number> MB** Sets the maximum size, in megabytes, for a startup segment of the log.

Changes Take Effect: After restart
Dependencies: segment is not false

Specifies whether a startup segment of the log, containing the initial configuration, is to be kept. If it is, this option can be set to true or to a specific size. If set to `true`, the size of the initial segment will be equal to the size of the regular log segment defined by the `segment` option. The value of this option will be ignored if segmentation is turned off (that is, if the `segment` option set to `false`).

memory

Default Value: No default value
Valid Values: <string> (memory file name)
Changes Take Effect: Immediately

Specifies the name of the file to which Stat Server regularly prints a snapshot of the memory output, if it is configured to do this. The new snapshot overwrites the previously written data. If Stat Server terminates abnormally, this file will contain the latest log messages. Memory output is not recommended for processors with a CPU frequency lower than 600 MHz.

Note: If the file specified is located on a network drive, Stat Server does not create a snapshot file (with the extension *.memory.log).

Refer to Log Output Options for more information.

memory-storage-size

Default Value: 2 MB

Valid Values:

- **<number> KB or <number>** The size of the memory output, in kilobytes. The minimum value is 128 KB.
- **<number> MB** The size of the memory output, in megabytes. The maximum value is 64 MB

Changes Take Effect: When memory output is created

Specifies the buffer size for log output to the memory. Refer to Log Output Options for more information.

message_format

Default Value: short

Valid Values:

- **short** An application uses compressed headers when writing log records in its log file.
- **full** An application uses complete headers when writing log records in its log file.

Changes Take Effect: Immediately

Specifies the format of log record headers that Stat Server uses when it writes to its log file. Using compressed log record headers improves Stat Server performance and reduces the log's file size. With the value set to short:

- A header of the log file or the log file segment contains information about the application (such as the application name, application type, host type, and time zone), whereas single log records within the file or segment omit this information.

- A log message priority is abbreviated to Std, Int, Trc, or Dbg, for Standard, Interaction, Trace, or Debug messages, respectively.

- The message ID does not contain the prefix GCTI or the application type ID.

A log record in the full format looks like this:

`2015-05-07T18:11:38.196 Standard localhost StatServer GCTI-00-05060 Application started`

A log record in the short format looks like this:

`2015-05-07T18:15:33.952 Std 05060 Application started`

Note: Whether the full or short format is used, time is printed as specified by the time_format option.

messagefile

Default Value: StatServer.lms
Valid Values: <string>.lms
Changes Take Effect: After restart or Immediately, if Stat Server cannot locate the statserver.lms file at startup

Specifies the file name for Stat Server log events. The name must be valid for the operating system on which Stat Server is running. The option value can also contain the absolute path to the StatServer.lms file. Otherwise, Stat Server looks for the file in its working directory.

Warning! An application that does not find its *.lms file at startup cannot generate application-specific log events and send them to Message Server.

print-attributes

Default Value: false

Valid Values:

- **true** Attaches extended attributes, if any exist, to a log event sent to log output.

- **false** Does not attach extended attributes to a log event sent to log output.

Changes Take Effect: Immediately

Specifies whether the application will attach extended attributes, if any exist, to a log event that the application sends to log output. Typically, log events of the `Interaction` log level and Audit-related log events contain extended attributes. Setting this option to `true` enables audit capabilities, but negatively affects performance. Genesys recommends enabling this option only when testing new interaction scenarios.

Refer to the *Genesys Combined Log Events Help*, available on the Management Framework page, for information about extended attributes.

segment

Default Value: 100 MB

Valid Values:

- **false** No segmentation is allowed.
- **<number> KB or <number>** Sets the maximum segment size in kilobytes. The minimum segment size is 100 KB.
- **<number> MB** Sets the maximum segment size in megabytes. The maximum value is 2047 MB.
- **<number> hr** Sets the number of hours for the segment to stay open. The minimum number is 1 hour.

Changes Take Effect: Immediately

Specifies whether there is a segmentation limit for a log file. If there is, sets the mode of measurement, along with the maximum size. If the current log segment exceeds the size set by this option, the file is closed and a new one is created. Stat Server ignores this option if log output is not configured to be sent to a log file.

spool

Default Value: The Stat Server working directory
Valid Values: <path> The full path of the folder
Changes Take Effect: Immediately

Specifies the folder, including full path to it, in which Stat Server creates temporary files related to network log output. If you change the option value while Stat Server is running, the change does not affect the currently open network output.

standard

Default Value: No default value

Valid Values:

- **stdout** Log events are sent to the Standard output (stdout).
- **stderr** Log events are sent to the Standard error output (stderr).
- **network** Log events are sent to Message Server, which can reside anywhere on the network. Message Server stores the log events in the Log Database.
- **memory** Log events are sent to the memory output on the local disk. This is the safest output in terms of the application performance.
- **<filename>** Log events are stored in a file with the specified name. If a path is not specified, the file is created in the application's working directory.

Changes Take Effect: Immediately

Specifies the outputs to which an application sends the log events of the Standard level. You must separate log output types with commas when you configure more than one output type.

For example, standard = stderr, network

throttle-period

Default Value: 30
Valid Values: 0-3600
Changes Take Effect: Immediately
Dependencies: enable-thread = true
Introduced: 8.5.106

Specifies, in seconds, how long to keep the throttled verbose level. When this period of time has expired, the original log verbose level will be restored when the log queue size has decreased to less than 50% of the threshold.

This option applies only if enable-thread is set to true.

throttle-threshold

Default Value: 5000
Valid Values: 0-10000
Changes Take Effect: Immediately
Dependencies: enable-thread = true
Introduced: 8.5.106
Related Links: log throttling

Specifies the size of the internal log queue at which the verbose level is to be reduced so as to lessen the load generated by logging. If this option is set to 0 (zero), throttling does not occur. For more information about log throttling, refer to the *Framework Management Layer User's Guide*.

This option applies only if enable-thread is set to `true`.

time_convert

Default Value: local

Valid Values:

- **local** The time of log-record generation is expressed as a local time, based on the time zone and any seasonal adjustments. Time zone information of Stat Server's host computer is used.
- **utc** The time of log-record generation is expressed as Coordinated Universal Time (UTC).

Changes Take Effect: Immediately

Specifies the system in which Stat Server calculates the log record time when generating a log file. The time is converted from the time in seconds since the Epoch (00:00:00 UTC, January 1, 1970).

time_format

Default Value: time

Valid Values:

- **time** The time string is formatted according to the HH:MM:SS.sss (hours, minutes, seconds, and milliseconds) format.
- **locale** The time string is formatted according to the system's locale.
- **ISO8601** The date in the time string is formatted according to the ISO 8601 format. Fractional seconds are given in milliseconds.

Changes Take Effect: Immediately

Specifies how to represent, in a log file, the time when Stat Server generates log records.
A log record's time field in the ISO 8601 format looks like this:
`2001-07-24T04:58:10.123`

trace

Default Value: No default value

Valid Values:

- **stdout** Log events are sent to the Standard output (`stdout`).
- **stderr** Log events are sent to the Standard error output (`stderr`).
- **network** Log events are sent to Message Server, which can reside anywhere on the network. Message Server stores the log events in the Log Database.
- **memory** Log events are sent to the memory output on the local disk. This is the safest output in terms of the application performance.
- **<filename>** Log events are stored in a file with the specified name. If a path is not specified, the file is created in the application's working directory.

Changes Take Effect: Immediately

Specifies the outputs to which an application sends the log events of the Trace level and higher (that is, log events of the Standard, Interaction, and Trace levels). You must separate log outputs with commas when you configure more than one output type.

For example, `trace = stderr, network`

verbose

Default Value: all

Valid Values:

- **all** All log events (that is, log events of the Standard, Trace, Interaction, and Debug levels) are generated if you set the debug-level option in the statserver section to `all`.
- **debug** The same as `all`.
- **trace** Log events of the Trace level and higher (that is, log events of the Standard, Interaction, and Trace levels) are generated, while log events of the Debug level are not generated.
- **interaction** Log events of the Interaction level and higher (that is, log events of the Standard and Interaction levels) are generated, while log events of the Trace and Debug levels are not generated.
- **standard** Log events of the Standard level are generated, while log events of the Interaction, Trace, and Debug levels are not generated.
- **none** Produces no output.

Changes Take Effect: Immediately

Determines whether a log output is created. If it is, this option specifies the minimum level of log events generated. The log events levels, starting with the highest-priority level, are `standard`, `interaction`, `trace`, and debug. Refer to Log Output Options for more information.

Refer to the *Framework Management Layer User's Guide*, available on the Management Framework page, for more information on the `standard`, `trace`, `interaction`, and debug log levels.

x-conn-debug-all

Default Value: 0

Valid Values:

- **0** Log records are not generated.
- **1** Log records are generated.

Changes Take Effect: After restart

Generates debug log records about open connection, socket select, timer creation and deletion, write, security-related, DNS operation, and connection library function calls. This option is the same as enabling or disabling all of the previous `x-conn-debug-<optype>` options.

x-conn-debug-api

Default Value: 0

Valid Values:

- **0** Log records are not generated.
- **1** Log records are generated.

Changes Take Effect: After restart

Generates debug log records about connection library function calls.

x-conn-debug-dns

Default Value: 0

Valid Values:

- **0** Log records are not generated.
- **1** Log records are generated.

Changes Take Effect: After restart

Generates debug log records about DNS operations.

x-conn-debug-open

Default Value: 0

Valid Values:

- **0** Log records are not generated.
- **1** Log records are generated.

Changes Take Effect: After restart

Generates debug log records about "open connection" operations.

x-conn-debug-security

Default Value: 0

Valid Values:

- **0** Log records are not generated.
- **1** Log records are generated.

Changes Take Effect: After restart

Generates debug log records about security-related operations, such as Transport Layer Security (TLS) and security certificates. This option has no effect on Stat Server 7.6 and earlier releases, which do not support TLS operations.

x-conn-debug-select

Default Value: 0

Valid Values:

- **0** Log records are not generated.
- **1** Log records are generated.

Changes Take Effect: After restart

Generates debug log records about "socket select" operations.

x-conn-debug-timers

Default Value: 0

Valid Values:

- **0** Log records are not generated.
- **1** Log records are generated.

Changes Take Effect: After restart

Generates debug log records about the timer creation and deletion operations.

x-conn-debug-write

Default Value: 0

Valid Values:

- **0** Log records are not generated.

- **1** Log records are generated.

Changes Take Effect: After restart

Generates Debug log records about "write" operations of the application.

Log Output Options

To configure log outputs, set log level options (all, alarm, standard, interaction, trace, memory, and/or debug) to the desired types of log output (stdout, stderr, network, memory, and/or [filename] for log file output).

You can use:

- One log level option to specify different log outputs.
- One log output type for different log levels.
- Several log output types simultaneously for logging the events of the same or different log levels.

You must separate the log output types by a comma when you are configuring more than one output for the same log level. See examples below.

Note: The log output options are activated according to the setting of the verbose configuration option.

Warnings:

- If you direct log output to a file on the network drive, an application does not create a snapshot log file (with the extension *.snapshot.log) in case it terminates abnormally.
- Directing log output to the console (by using the stdout or stderr settings) can affect application performance. Avoid using these log output settings in a production environment.

Example 1: Production Mode [log] Section

```
[log]
verbose=standard
standard=network,statservlogfile
```

With this configuration, Stat Server generates only log events of the Standard level and sends them to the standard output, to Message Server, and to a file named statservlogfile, which Stat Server creates in its working directory. Genesys recommends that you use this or a similar configuration in a production environment.

Warning! Directing log output to the console (by using the `stdout` or `stderr` settings) can affect application performance. Avoid using these log output settings in a production environment.

Example 2: Lab Mode [log] Section

```
[log]
verbose=all
all=stdout,/usr/local/genesys/statservlogfile
trace=network
```

With this configuration, Stat Server generates log events of the `standard`, `interaction`, `trace`, and `debug` levels and sends them to the standard output and to a file named `statservlogfile`, which Stat Server creates in the `/usr/local/genesys/` directory. In addition, Stat Server sends log events of the `standard`, `interaction`, and `trace` levels to Message Server. Use this configuration to test new interaction scenarios in a laboratory environment. Be sure to appropriately set the debug-level option in the `statserver` section.

Example 3: Failure-Troubleshooting [log] Section

```
[log]
verbose=all
standard=network
all=memory
memory=statservlogfile
memory-storage-size=32 MB
```

With this configuration, Stat Server generates log events of the `standard` level and sends them to Message Server. It also generates log events of all levels and sends them to the memory output. The most current log is stored to a file named `statservlogfile`, which the application creates in its working directory. An increased memory storage enables Stat Server to save more log information generated before a failure. Use this configuration when trying to reproduce an application failure. The memory log file would contain the snapshot of Stat Server's log at the moment of failure. This should help you and Genesys Customer Care identify the reason for the failure. Be sure to appropriately set the debug-level option in the `statserver` section.

Note: If you are operating Stat Server on Unix and do not specify any files in which to store the memory output snapshot, the core file that Stat Server produces before terminating contains the most current Stat Server log. Provide the Stat Server's core file to Genesys Customer Care when reporting problems.

Log File Extensions

You can use the following file extensions to identify log files that Stat Server creates for various types of output:

- `*.log`—Assigned to log files when you configure output to a log file. For example, if you set `standard = statservlog`, Stat Server prints log messages into a text file called `statservlog.<time_stamp>.log`.

- `*.qsp`—Assigned to temporary (spool) files when you configure output to the network, but the network is temporarily unavailable. For example, if you set standard = network, Stat Server prints log messages into a file called statserv.<time_stamp>.qsp during the time the network is unavailable.

- `*.snapshot.log`—Assigned to files containing the output snapshot when you configure output to a log

file. The file contains the last log messages that Stat Server generates before abnormal termination. For example, if you set `standard = statservlog`, Stat Server prints the last log message into a file called `statserv.<time_stamp>.snapshot.log` in case of failure. If Stat Server terminates normally, the snapshots logs are deleted.
Note: Provide *.snapshot.log files to Genesys Customer Care when reporting a problem.

- `*.memory.log`—Assigned to log files that contain the memory output snapshot when you configure output to memory and redirect the most recent memory output to a file. For example, if you set `standard = memory` and `memory = statserv`, Stat Server prints the latest memory output to a file called `statserv.<time_stamp>.memory.log`.

Debug Logs

The `x-conn-debug-<optype>` configuration options:

- x-conn-debug-all
- x-conn-debug-api
- x-conn-debug-dns
- x-conn-debug-open
- x-conn-debug-security
- x-conn-debug-select
- x-conn-debug-timers
- x-conn-debug-write

enable you to generate debug logs containing information about specific Stat Server operations. You designate these options in the log section of the Stat Server application.

Warning! Genesys advises you to use these options only when requested by Genesys Customer Care.

log-extended

This section is defined on the `Options` tab of the Stat Server Application object and has to be named `log-extended`.

- level-reassign-disable
- level-reassign-<eventID>

level-reassign-disable

Default Value: false
Valid Values: true, false
Changes Take Effect: Immediately

When this option is set to true, the original (default) log level of all log events in the `[log-extended]` section are restored. This option is useful when you want to use the default levels and keep the customizations.

level-reassign-<eventID>

Default Value: Default value of log event <eventID>. Refer to the *Common Log Events Help* or statserver.lms (located in the directory where Stat Server is installed) for a listing of each of Stat Server's the default levels.

Valid Values:

- **alarm** The log level of log event <eventID> is set to alarm.
- **standard** The log level of log event <eventID> is set to standard.
- **interaction** The log level of log event <eventID> is set to interaction.
- **trace** The log level of log event <eventID> is set to trace.
- **debug** The log level of log event <eventID> is set to debug.
- **none** Log event <eventID> is not recorded in a log.

Changes Take Effect: Immediately
Related Options: level-reassign-disable

Specifies one of five log levels for log event <eventID>, which may differ from its default level, or disables logging of the named event altogether. This option is useful if you want to change the behavior of what Stat Server logs for the specified log event ID. If no value is specified, then the named log event retains its default level.

You can deactivate these options with the level-reassign-disable configuration option.

> ## Warning
>
> Use caution when making these changes in a production environment.
>
> Depending on the log configuration, changing the log level to a higher priority might cause the log event to be logged more often or to a greater number of outputs. This could affect system performance.
>
> Likewise, changing the log level to a lower priority may cause the log event to be not logged at all, or not logged to specific outputs, thereby losing important information. The same applies to any alarms associated with that log event.

In addition to the precautionary message above, take note of the following:

- Logs can be customized only by release 7.6 or later applications.

- When the log level of a log event is changed to any level except none, it is subject to the other settings in the [log] section at its new level. If set to none, it is not logged and therefore not subject to any log configuration.

- Changing the log level of a log using this feature changes only its priority; it does not change how that log is treated by the system. For example, increasing the priority of a log to Alarm level does not mean that an alarm will be associated with it.

- Each application in a high availability (HA) pair can define its own unique set of log customizations, but the two sets are not synchronized with each other. This can result in different log behavior depending on which application is currently in primary mode.

- This feature is not the same as a similar feature in Universal Routing Server, version 7.2 or later. In this Framework feature, the priority of log events are customized. In the URS feature, the priority of debug messages only are customized. Refer to the *Universal Routing Server Reference Manual*, available on the Universal Routing page, for more information about the URS feature.

- You cannot customize any log event that is not in the unified log record format. Log events of the Alarm, Standard, Interaction, and Trace levels feature the same unified log record format.

Example

This is an example of using customized log level settings, subject to the following log configuration:

[log]

```
verbose=interaction
all=stderr
interaction=log_file
standard=network
```

Before the log levels of the log are changed:

- Log event 20009—with default level `trace`—is output to `stderr`.
- Log event 20018—with default level `standard`—is output to `stderr` and the log file, and sent to Message Server.
- Log event 20022—with default level debug—is output to `stderr`.

Extended log configuration section:

```
[log-extended]
level-reassign-20009=none
level-reassign-20018=interaction
level-reassign-20022=standard
```

After the log levels are changed:

- Log event 20009 is disabled and is not logged.
- Log event 20018 is output to stderr and to the log file.
- Log event 20022 is output to stderr and to the log file, and sent to Message erver.

log-filter

This section is defined on the `Options` tab of the Stat Server Application object and has to be named `log-filter`. Refer to the "Hide Selected Data in Logs" chapter in the *Genesys Security Deployment Guide* for more information about this feature.

- default-filter-type
- filtering

default-filter-type

Default Value: copy

Valid Values:

- **copy** The keys and values of KVList information are copied to the log.

- **hide** The keys of the KVList information are copied to the log; the values are replaced with strings of asterisks.

- **hide-first,<n>** The keys of the KVList information are copied to the log; the first <n> characters of the value are replaced with asterisks. If <n> exceeds the number of characters in the value, the number of asterisks will be equal to the number of characters in the value.

- **hide-last,<n>** The keys of the KVList information are copied to the log; the last <n> characters of the value are replaced with asterisks. If <n> exceeds the number of characters in the value, the number of asterisks will be equal to the number of characters in the value

- **tag[(<tag-prefix>,<tag-postfix>)]** KVList information is tagged with the prefix specified by <tag-prefix> and the postfix specified by <tag-postfix>. If the two parameters are not specified, the default tags <# and #> are used as prefix and postfix, respectively.
  To use the default tags, you can use any of the following values:

  - tag

  - tag()

  - tag(,)

  To define your own tags, replace the two parameters in the value with your tags.

- **unhide-first,<n>** The keys of the KVList information are copied to the log; all but the first <n> characters of the value are replaced with asterisks. If <n> exceeds the number of characters in the value, the value of the key appears, with no asterisks.

- **unhide-last,<n>** The keys of the KVList information are copied to the log; all but the last <n>

characters of the value are replaced with asterisks. If <n> exceeds the number of characters in the key, the value of the key appears, with no asterisks.

- **skip** KVList information is not copied to the log.

Changes Take Effect: Immediately

Specifies the default manner in which KVList information (including `UserData`, `Extensions`, and `Reasons`) is presented in the Stat Server log. Stat Server applies the value of this option to all KVList pairs, but the presentation of specific pairs can in `AttributeUserData` be overridden by options that are explicitly defined within the section.

Example

```
[log-filter]
default-filter-type=copy
```

Here is an example of a log with the default log filter settings:

```
message RequestSetCallInfo
    AttributeConsultType 3
    AttributeOriginalConnID 008b012ece62c8be
    AttributeUpdateRevision 2752651
    AttributeUserData [111] 00 27 01 00..
        'DNIS' '8410'
        'PASSWORD' '111111111'
        'RECORD_ID' '8313427'

    AttributeConnID 008b012ece62c922
```

Refer to the *Genesys Security Deployment Guide* for additional examples.

filtering

Default Value: true
Valid Values: true, false
Changes Take Effect: Immediately, if application is subscribed to notifications that this option has been changed.

Enables (true) or disables (false) log filtering at the Application level.

log-filter-data

This section is defined on the `Options` tab of the Stat Server Application object and has to be named `log-filter-data`. The options in this section define the treatment of filtering data in log output on a key-by-key basis. Log files can contain a significant amount of information about your configuration and operations. The options in this section enable you to prevent unauthorized users from seeing particular data in the output of log messages.

* <key name>

<key name>

Default Value: copy

Valid Values:

* **copy** The keys and values of the given KVList pair in the `AttributeUserData` section are copied to the log.

* **hide** The given KVList key is copied to the log; the KVList value is replaced with a string of asterisks.

* **hide-first,<n>** The key of the given KVList pair in the `AttributeUserData` section is copied to the log; the first <n> characters of the value are replaced with asterisks. If <n> exceeds the number of characters in the value, the number of asterisks will be equal to the number of characters in the value.

* **hide-last,<n>** The key of the given KVList pair in the `AttributeUserData` section is copied to the log; the last <n> characters of the value are replaced with asterisks. If <n> exceeds the number of characters in the value, the number of asterisks will be equal to the number of characters in the value.

* **tag[(<tag-prefix>,<tag-postfix>)]** The KVList pair in the `AttributeUserData` section is tagged with the prefix specified by `<tag-prefix>` and the postfix specified by `<tag-postfix>`. If the two parameters are not specified, the default tags <# and #> are used as prefix and postfix, respectively. To use the default tags, you can use any of the following values:

  * `tag`

  * `tag()`

  * `tag(,)`

  To define your own tags, replace the two parameters in the value with your tags.

* **unhide-first,<n>** The key of the given KVList pair in the `AttributeUserData` section is copied to the log; all but the first <n> characters of the value are replaced with asterisks. If <n> exceeds the number of characters in the value, the value of the key appears, with no asterisks.

- **unhide-last,<n>** The key of the given KVList pair in the `AttributeUserData` section is copied to the log; all but the last <n> characters of the value are replaced with asterisks. If <n> exceeds the number of characters in the value, the value of the key appears, with no asterisks.

- **skip** The KVList pair in the `AttributeUserData` section is not copied to the log.

Changes Take Effect: Immediately

Specifies the manner in which the specified KVList pair, defined by this option's name, is presented in the Stat Server log. Setting this option supersedes the default manner of KVList presentation, which is defined by the value of the default-filter-type option in the [log-filter] section for the given KVList pair. If no value is specified for this option, no additional processing of this data element is performed.

Example

```
[log-filter-data]
PASSWORD=hide
```

Here is an example of the log with the PASSWORD option set to `hide`. Note that the value of PASSWORD has been replaced with a series of asterisks (****):

```
message RequestSetCallInfo
AttributeConsultType 3
AttributeOriginalConnID 008b012ece62c8be
AttributeUpdateRevision 2752651
AttributeUserData [111] 00 27 01 00
'DNIS' '8410'
'PASSWORD' '****'
'RECORD_ID' '8313427'
AttributeConnID 008b012ece62c922
```

Refer to the *Genesys Security Deployment Guide* for additional examples.

OCCExtension

This section is defined on the `Options` tab of the Stat Server Application object and has to be named `OCCExtension`. It is required for proper functioning of agent assignments in scenarios involving switchovers between a primary/backup Outbound Contact Server pair. OCC Extension supports the ability to reset agent assignments-related actions both by the explicit request from Outbound Contact Server and upon Outbound Contact Server disconnect.

- assignment-reset-delay
- java-extension-jar
- print-level

assignment-reset-delay

Default Value: 30000
Valid Values: Positive integer
Changes Take Effect: After restart
Dependencies: java-extension-jar = OCCStatExtension.jar

This option specifies the reset delay, in milliseconds, for agent assignments-related actions. The delay is applied upon an Outbound Contact Server disconnect or upon an Outbound Contact Server explicit request to reset these actions. Genesys recommends to keep this option at default value, unless explicitly instructed otherwise.

java-extension-jar

Default Value: OCCStatExtension.jar
Valid Values: OCCStatExtension.jar
Changes Take Effect: After restart

This mandatory option indicates that other parameters in this section are submitted to OCC Extension upon extension load.

print-level

Default Value: standard
Valid Values: debug, standard, or trace
Changes Take Effect: After restart
Dependencies: java-extension-jar = OCCStatExtension.jar

This option sets the logging verbosity level of OCC Extension.

overload

This section is defined on the `Options` tab of the Stat Server Application object and has to be named `overload`.

- allow-new-connections-during-overload
- allow-new-requests-during-overload
- cpu-cooldown-cycles

- cpu-poll-timeout
- cpu-threshold-high
- cpu-threshold-low
- cut-debug-log

- protection
- qos-default-overload-policy
- qos-recovery-enable-lms-messages

allow-new-connections-during-overload

Default Value: true
Valid Values: true, false
Changes Take Effect: Immediately
Introduced: 8.5.108

Controls whether new clients can connect during the Stat Server overload.

allow-new-requests-during-overload

Default Value: true
Valid Values: true, false
Changes Take Effect: Immediately
Introduced: 8.5.108

Controls whether new requests can be made during the Stat Server overload.

cpu-cooldown-cycles

Default Value: 30
Valid Values: 1-100
Changes Take Effect: After restart
Introduced: 8.5.108

Defines the number of cpu-poll-timeout cycles in a cooldown period.

For example, if the cpu-poll-timeout = 10sec and cpu-cooldown-cycles = 30, then the cooldown period is 10x30 =300sec. It means that the main thread CPU should be below the value of the cpu-threshold-low option for 300sec, after this period overload recovery is considered to be over.

cpu-poll-timeout

Default Value: 10
Valid Values: 1-60
Changes Take Effect: After restart
Introduced: 8.5.108

Defines, in seconds, how often the main thread CPU is polled.

cpu-threshold-high

Default Value: 80
Valid Values: 0-100
Changes Take Effect: After restart
Introduced: 8.5.108

Defines the higher level of the main thread CPU utilization threshold, which signifies the start of the Stat Server overload.

cpu-threshold-low

Default Value: 60
Valid Values: 0-100
Changes Take Effect: After restart
Introduced: 8.5.108

Defines the lower level of the main thread CPU utilization threshold, which signifies the start of the Stat Server recovery.

cut-debug-log

Default Value: true
Valid Values: true, false
Changes Take Effect: Immediately
Introduced: 8.5.108

Controls debug logging in the overload. If set to `true`, the debug log is cut during the Stat Server overload.

protection

Default Value: false

Valid Values: true, false
Changes Take Effect: Immediately
Introduced: 8.5.108

Controls whether the overload protection is applied during the Stat Server overload.

qos-default-overload-policy

Default Value: 0
Valid Values: 0, 1, 2
Changes Take Effect: After restart
Introduced: 8.5.108

Defines the global overload policy.

If this option is set to:

- 0 (zero) - sends and updates for requested statistics can be cut

- 1 - only sends of statistics to Stat Server clients can be cut

- 2 - nothing can be cut. Stat Server updates and sends all requested statistics.

qos-recovery-enable-lms-messages

Default Value: false
Valid Values: true, false
Changes Take Effect: After restart
Introduced: 8.5.108

Enables Standard recovery related log messages, which are introduced for debugging purpose:

10072 "GCTI_SS_OVERLOAD_RECOVERY_STARTED - Overload recovery started on %s (%d current CPU usage)"

10073 "GCTI_SS_OVERLOAD_RECOVERY_FAILED - Overload recovery failed on %s (%d current CPU usage)".

sml

This section is defined on the `Options` tab (Advanced View (Annex)) of the Stat Server Application object and has to be named `sml`, which stands for System Management Layer. Below are options that you can configure in this section. Other options that the *Framework Configuration Options Reference Manual* describe are not supported in the 8.x releases of Stat Server.

> ## Warning
>
> Use the `hangup-restart` and `heartbeat-period` options with great care. Failure to use these options properly could result in unexpected behavior, from ignoring the options to an unexpected restart of the application.

- hangup-restart
- heartbeat-period
- suspending-wait-timeout

hangup-restart

Default Value: true
Valid Values: true, false
Changes Take Effect: Immediately

If set to `true` (the default), specifies that LCA is to restart the unresponsive application immediately without any user intervention.

If set to `false`, specifies that LCA is only to generate a notification that the application has stopped responding; the application is not automatically restarted.

heartbeat-period

Default Value: 0
Valid Values: 0 or 10 - 604800
Changes Take Effect: Immediately

Specifies the maximum amount of time, in seconds, in which heartbeat messages are expected from

an application. If Local Control Agent (LCA) does not receive a heartbeat message from the application within this period, it assumes the application is not responding and carries out corrective action.

The hangup detection functionality and this option are supported by Solution Control Server 8.1.1 and higher.

If this option is not configured or is set to zero (0), heartbeat detection is not used.

suspending-wait-timeout

Default Value: 10
Valid Values: 5 - 600
Changes Take Effect: Immediately

Specifies a timeout, in seconds, after the Stop Graceful command is issued to an application within the Management Layer, during which the status of the application should change to Suspending if the application supports graceful shutdown. If the status of the application does not change to Suspending before the timeout expires, it is assumed that the application does not support graceful shutdown, and it is stopped ungracefully.

statserver

The group of options, listed below, are available for configuring Stat Server Application objects. They should be configured in the Options tab of the Stat Server Application object under the [statserver] section.

- accept-clients-in-backup-mode
- acw-absorb-mode
- allow-asm-outbound-on-established
- allow-vq-orig-dns-from-environment
- auto-backup-interval
- backup-file-aggregates-store
- backup-file-name
- capacity-treat-acw-as-interaction
- check-stuck-calls
- check-stuck-calls-duration
- check-stuck-calls-frequency
- check-vq-stuck-calls-frequency
- config-reload-delay-if-primary
- consult-acw-mode
- debug-level
- DefaultAgentSPT
- DefaultDNSPT
- DefaultRPSPT
- disconnect-from-lca-on-history-log-expired
- do-backup-in-background
- filters-allow-wildcards-in-values
- generate-stat-validity-events
- generate-transfer-taken-on-

- ringing
- ignore-disabled-objects-in-group-statistics
- ignore-disabled-objects-in-queue-statistics
- ignore-off-hook-on-position
- interaction-agent-party-in-progress-on-tenant-max-number
- interaction-agent-party-in-progress-on-tenant-media-list
- interaction-wait-on-sa-max-number
- interaction-wait-on-sa-media-list
- interaction-wait-on-tenant-max-number
- interaction-wait-on-tenant-media-list
- load-balance-aht
- management-port
- max-client-connections
- mm-agent-logout-optimization
- mm-media-list-lower-case
- mm-skip-reason-changed-events
- nec-position-extension-linked
- old-stats-remove
- old-stats-remove-interval
- position-extension-linked
- queue-disable-dcid-for-

- missed-calls
- queue-use-pseudo-actions
- reconnect-timeout
- reg-delay
- reg-dns-chunk-delay
- reg-dns-chunk-volume
- reg-error-delay
- reg-error-max-count
- rp-handle-queueing-events
- send-timeout
- show-attached-data
- show-queued-interactions
- stat-file-show-clients-list
- stat-file-show-options
- stat-file-timeout
- subscribe-for-all-ixn-server-events
- suppress-agent-status-updates-for-ixn-server
- suppress-user-data
- vag-statistics-active-agents-only
- vq-clean-call-details-upon-party-changed
- vq-ignore-third-party-dn
- vq-treat-unknown-third-party-dn-as-agent-dn
- vq-use-alt-enter-time
- xx-disconnect-clients-on-ixn-

• server-disconnect

Use the following options to configure a Stat Server Application to write data to a database:

- binding-threshold
- db-timeout
- db-txn-max-retries
- enable-binding
- identity-in-login-table
- ixn-id-in-status-table
- local-time-in-status-table

- local-time-in-status-table
- login-table
- max-unsent-sql-statements
- multimedia-activity-in-status-table
- qinfo-table
- status-table

- status-table-update-end-time-at-end-only
- time-format
- use-server-id
- voice-reasons-table
- warn-unsent-sql-statements
- warn-unsent-sql-statements

To enable Java functionality, use the following options, configured for Stat Server `Application` under the [`statserver`] section:

- debug-level
- enable-java

Refer to sections [java-config] and [jvm-options] for extra Java related options. You are directed to read your operating-system and/or Java Runtime Environment (JRE) vendor documentation to learn of any peculiarities regarding JVM installation or the setup of JRE.

For configuration options that indicate valid values of true and false, any of the following additional values are also valid:

- `t` and `f`
- `yes` and `no`
- `y` and `n`
- `1` and `0`
- `on` and `off`

If the name of a configuration option changed between releases, Stat Server continues to support the former name.

If you specify an unsupported option in configuration, Stat Server will log the outcome and continue operating as if the option were never specified.

accept-clients-in-backup-mode

Default Value: yes
Valid Values: yes, no
Changes Take Effect: After restart
Modified: 8.5.1. New default value is yes

Specifies whether Stat Server accepts client connections when operating in backup mode.

With this option set to yes, Stat Server notifies the clients about its redundancy mode after a client's registration and after a change in mode. Moreover, when its redundancy mode is changed to backup, Stat Server does not close the communication port and accepts clients' connections and requests.

acw-absorb-mode

Default Value: 0
Valid Values: 0, 1
Changes Take Effect: After restart
Introduced: 8.5.108.19

Controls Stat Server behavior upon receiving the EventAgentNotReady event with WorkMode=AfterCallWork when there is call related AfterCallWork action in progress on a DN. The default behavior (acw-absorb-mode=0) is to stop a call related AfterCallWork action and then start a non call related AfterCallWork action. If acw-absorb-mode=1 then the existing call related AfterCallWork action is not stopped (legacy 8.1 behavior).

allow-asm-outbound-on-established

Default Value: true
Valid Values: true, false
Changes Take Effect: After restart

Controls whether Stat Server is allowed to generate ASM_Engaged and ASM_Outbound actions upon EventEstablished. For all other cases, the option control is not applicable. When this option is set to true, Stat Server will try to recognize interaction-flow scenarios where the GSW_RECORD_HANDLE key is present in the UserData of EventEstablished TEvent and the ANI or OtherDN attribute points to a DN of type Call Processing Port.

If these conditions are met, Stat Server starts these actions as follows:

- Stat Server starts and ends the ASM_Engaged actions instantaneously.

- Stat Server starts the ASM_Outbound action.

allow-vq-orig-dns-from-environment

Default Value: yes
Valid Values: yes, no
Changes Take Effect: After restart
Dependencies: vq-treat-unknown-third-party-dn-as-agent-dn = true and vq-ignore-third-party-dn = false

Specifies whether Stat Server will consider virtual queue objects from the `Environment` tenant as origination DNs for `GroupAgents` and `GroupPlaces` objects in other tenant if these virtual queues are configured as origination DNs for mentioned `GroupAgents` and `GroupPlaces` objects.

If this option is set to yes and `Environment` tenant is listed among those assigned to Stat Server (in a multi-tenant environment), Stat Server will generate retrospective actions, reflecting regular DNs from particular non-Environment Tenant to virtual queue objects in `Environment` Tenant, and Origination DNs retrospective actions from `Environment` Tenant to `GroupAgents` and `GroupPlaces` objects belonging to other Tenant.

For this functionality to work properly, you must also set the vq-treat-unknown-third-party-dn-as-agent-dn option to `true` and the vq-ignore-third-party-dn option to `false`.

auto-backup-interval

Default Value: 15
Valid Values: Integers 0 through 35791
Changes Take Effect: After restart
Modified: 8.5.104
Related Options: backup-file-name

Sets the time, in minutes, for checking persistent statistics and storing them in the file specified by the backup-file-name option. A value of 0 disables automated backups.

This option was previously named `AutoBackupInterval`.

backup-file-aggregates-store

Default Value: true
Valid Values: true, false
Changes Take Effect: Immediately upon notification
Dependencies: auto-backup-interval != 0
Introduced: 8.5.102

Controls whether the statistical aggregates are read from/written into the backup file.

While reading from the backup file, Stat Server might *use*, *adjust then use*, or *ignore* a serialized aggregate, depending on the interval type.

If the system time changes during or in between writing/reading aggregates, the aggregation window duration is adjusted approximately. Otherwise the following cases are applicable:

Interval	Near past (Aggregate is OK)	Distant past (Aggregate is outdated)
Growing	use	ignore
Sliding	adjust then use	ignore
Selection	use	use

Notes:

- The aggregate is only used, if no important statistical attributes (`TimeProfile`, `Filter`) have changed, since it was written into a backup file.

- The aggregate serialization is not applied to Java statistics.

- If a statistic aggregates over the duration (e.g., `TotalTime`) and has the `Subject != DNAction`, then incomplete subjects are forcefully ended prior to benign written into the backup file at shutdown (or handling the `HistoryLogExpired`); otherwise, incomplete subjects are not written into the backup file at shutdown (or while handling the `HistoryLogExpired`). If a writing into the backup file happens upon a timer, specified by the auto-backup-interval option, no incomplete subjects are written for any statistics.

backup-file-name

Default Value: ssbackup.000
Valid Values: Any valid path (optional) and file name
Changes Take Effect: After restart
Related Options: old-stats-remove-interval

Specifies the name of the backup file that stores persistent statistics for synchronization. Stat Server memorizes all parameters for statistics in demand, initiating their collection immediately after restart. If a particular statistic has not been requested for a long time period (three days by default as specified in the old-stats-remove-interval option), the statistics are removed from both the cache and the backup file.

Note: Stat Server ignores backup files when:

- They were generated by a different version of Stat Server.

- You reconfigure the Stat Server solution.

This option was previously named *BackupFileName*.

binding-threshold

Default Value: 10
Valid Values: Any positive integer less than 2147483648 (2^{31})
Changes Take Effect: After restart
Dependencies: enable-binding = yes

Specifies the number of records in a binding block—that is, the number of records to be sent to the DBMS simultaneously. This option is enabled only if you have set the value of the enable-binding

configuration option to yes. The default template does not include this option.

capacity-treat-acw-as-interaction

Default Value: no
Valid Values: yes, no
Changes Take Effect: After restart

Determines whether Stat Server treats ACW activity as interactions while the associated DN is in after-call work (ACW) status. The routability of additional, simultaneous interactions to a device is dependent on the number of interactions that currently are occurring at that device. Setting this option to yes instructs Stat Server to treat any ACW activity as an interaction *for the purpose of determining capacity*—synonymous to any other type of voice interaction, such as handling customer-initiated (inbound) calls, internal calls among agents, and so forth. *For the purpose of reporting current activity*, this treatment does not increment the count of `CurrentNumber` or `TotalNumber` statistics.

The presence of ACW on a device also affects the routability of interactions of other media types, as defined in the capacity model for your environment. For information about defining capacity rules, refer the *Genesys Resource Capacity Planning Guide*.

If this option is set to no, Stat Server does not consider ACW-related activities that occur at a device in its calculation of the `current_number` component of the capacity vector. In fact, Stat Server may allow additional, simultaneous interactions to be routed to that device per the capacity rules defined in your environment.

check-stuck-calls

Default Value: no
Valid Values: yes, no
Changes Take Effect: Immediately upon notification
Related Options: check-stuck-calls-frequency, check-stuck-calls-duration

When you set the value of this option to yes, Stat Server checks DNs of the `Extension`, `ACD Position`, `VTO (IVR)`, `ACD Queue`, `Service Number`, and `Routing Point` types for calls with no activity during the time configured as a value of the check-stuck-calls-duration option. When detecting such calls, Stat Server queries T-Server on the current DN status. If T-Server indicates that the call has been cleared from the DN in question, Stat Server deletes the call from memory. The checkup frequency is configured as a value of the check-stuck-calls-frequency option. Stat Server does not check Internet DNs or DNs of `Virtual Routing Point` type.

This option was previously named `CheckStuckCalls`.

Note: Calls can be stuck in T-Server and/or Stat Server. The `check-stuck-calls` configuration option enables Stat Server to clear calls that it determines to be stuck in Stat Server.

check-stuck-calls-duration

Default Value: 600
Valid Values: Integers greater or equal to 30 and less than or equal to 2147483
Changes Take Effect: After restart
Dependencies: check-stuck-calls=yes
Introduced: 8.5.0
Related Options: check-stuck-calls-frequency

If the check-stuck-calls option is set to yes, Stat Server checks for stuck calls every check-stuck-calls-frequency seconds, for calls that are older than `check-stuck-calls-duration` seconds.

check-stuck-calls-frequency

Default Value: 600
Valid Values: Integers greater or equal to 30 and less than or equal to 2147483
Changes Take Effect: After restart
Dependencies: check-stuck-calls=yes
Introduced: 8.5.0
Related Options: check-stuck-calls-duration

If the check-stuck-calls option is set to yes, Stat Server checks for stuck calls every `check-stuck-calls-frequency` seconds, for calls that are older than check-stuck-calls-duration seconds.

check-vq-stuck-calls-frequency

Default Value: 600
Valid Values: Integers greater or equal to 30 and less than or equal to 2147483
Changes Take Effect: After restart

Works in conjunction with the frequency of EventReserved_2 heartbeats that accompany live calls from URS, specifying the frequency, in seconds, with which Stat Server checks virtual queues for stuck calls. Stat Server suspends checks for stuck calls if no calls are queued at any virtual queue that Stat Server monitors. Stuck calls result if a URS connection breaks when a live calls is completed. In this situation, Stat Server does not receive the EventReleased TEvent to indicate the end of the call, and Stat Server views the interaction as continuing.

Setting this option to a high value for large environments alleviates CPU load and helps to avoid situations where Stat Server inadvertently clears live calls due to network latency. In such situations, you should also consider resetting the `call_kpl_time` URS option, which measures the frequency of EventReserved_2 heartbeats, to a higher value. Small environments can set both options to relatively lower values. Also, you should be aware that setting `call_kpl_time` to 0 (zero) means that Stat Server will receive no EventReserved_2 events from URS. In this case, Stat Server considers all calls currently residing at the virtual queue as stuck and eliminates them from processing following the period of time specified by the `check-vq-stuck-calls-frequency` option. Refer to the *Universal Routing Reference Manual*, available on the Universal Routing page, for additional information about the `call_kpl_time` configuration option.

Prior to release 8.0, this functionality was not configurable. Stat Server's checks for stuck calls was

internally hard-coded at 60 seconds. Beginning with the 8.0 release, the default for this option, whether explicitly set or not, is 600 seconds.

config-reload-delay-if-primary

Default Value: false
Valid Values: true, false
Changes Take Effect: Immediately
Introduced: 8.5.112.07

This option controls whether Stat Server, in primary mode, delays configuration reloads. If this option is set to `true`, the primary Stat Server in the redundant pair delays the reload of the configuration when it cannot restore a session with Configuration Server. The option must be configured in both Stat Server applications of the primary-backup pair.

consult-acw-mode

Default Value: always
Valid Values: always, last
Changes Take Effect: After restart
Introduced: 8.5.104

When a consult call is released on a regular DN and the `after-call-work` (ACW) is pending, Stat Server generates the `AfterCallWork` action only in the following cases:

- `consult-acw-mode=always`

- `consult-acw-mode=last` and there are no more calls on a DN

db-timeout

Default Value: 30
Valid Values: Integers greater or equal to 10 and less than or equal to 3600 seconds
Changes Take Effect: After restart

This option controls how long Stat Server waits for a response from the database connection, before re-sending the current transaction.

db-txn-max-retries

Default Value: 3
Valid Values: Integers greater or equal to 1 and less than or equal to 10 retries
Changes Take Effect: After restart

This option controls how many times Stat Server re-sends a transaction to the database connection after a timeout has occurred, before it disconnects and reconnects to the database.

debug-level

Default Value: Init
Valid Values: all, Action, Client, Init, HA, Java, Mngmnt, Reset, Server, SPT, SQL, Status
Changes Take Effect: Immediately upon notification

A comma-separated list of debug categories that are visible in the Stat Server log:

- **all** Synonymous with Init,Server,Client,Status,Action,SQL,Mngmnt,Java,Reset. The debug level that you designate for this category supersedes any debug level that you designate for other categories.

- **Action** Logs changes to the internal Stat Server object model and provides a significant source of troubleshooting data, which includes entries following every TEvent.

- **Client** Logs all Stat Server communication with its clients, such as the opening of statistics and all statistical values sent to the client. This value generates a large amount of data, and should be sparingly used for troubleshooting reproducible problems with statistics.

- **Init** Used for capturing data related to Configuration Server that affects Stat Server, including dynamic Configuration Server changes made as Stat Server starts--such as the addition, deletion, and/or change of objects or their properties having an affect on Stat Server. This value is useful for tracking initial configuration and dynamic changes and is much more compact than the information provided in the Configuration Server log. Genesys recommends that you always include this value in this option.

- **HA** Logs messages related to HA functionality.

- **Java** Displays information related to Java extension functionality. Use this value only for statistics in the Outbound Contact 7.2.0+ or MCR 7.0.1+ (MCR has been renamed to eServices in release 8.0).

- **Mngmnt** Displays profiling information, including the number of currently connected clients, statistics being computed at the moment, and statistics to be reported to clients.

- **Reset** Enables the log messages Stat Server sends to clients while sending statistics requested with a reset-based notification mode.

- **Server** Logs T-Server events pertaining to Stat Server. Genesys recommends that you not include this value if you maintain logs for the related T-Server(s).

- **SPT** Logs events related to Stat Server startup. This value is provided to maintain backward compatibility and may be eliminated in future releases.

- **SQL** Displays the SQL statements issued if you have configured a database for Stat Server.

- **Status** Logs events related to the current state of objects and is useful for troubleshooting Stat Server-Router problems.

This option is enabled only if you have set the verbose common log option to `all`.

In graphical environments, log output often takes more than half of a server's execution time. To maintain performance, use only the debug levels that you need and run Stat Server in the background. Also, minimize the Stat Server window or redirect log output to a different device, such as a file. Be very careful, however, when directing log output to a file and consider the available free disk space, directory and file permissions, and possible conflicts with different software trying to use the log file at the same time.

For each debug category, you can also set the level of debug logging by specifying a numerical value

from [0–9] (with 9 being the most verbose) and appending the number to each category.

For example: Init, Status:6

Debug level 0 is synonymous to no logging at all for the specified debug category.

Debug levels 1–4 provide less logging information than was provided in prior releases but more than debug level 0.

Debug level 5 provides exactly the same logging information that was provided in prior releases. This level is the default level if none is otherwise specified.

Debug levels 6–7 provide more detailed output than level 5.

Debug levels 8–9 provide the most extensive log output requiring further internal processing which, in turn, further degrades Stat Server performance.

The SIP Server 8.1.1 product provides a troubleshooting tool that parses the log output of several Genesys servers including Stat Server. Refer to the *SipSpan2 User's Guide*, available on the SIP Server CD, for information on how to use this tool.

This option was previously named *DebugLevel*.

DefaultAgentSPT

Default Value: ... (an ellipsis)
Valid Values: A list of actions separated by a comma or an ellipsis (three consecutive dots). If you specify a list, it overrides the list hard-coded in the Stat Server Status Priority table.
Changes Take Effect: After restart

This option creates a precedence list of actions, which Stat Server uses to assign status to agents when there is more than one action occurring at each agent. The `DefaultGroupSPT` option, available in the initial 7.0 and prior releases, is no longer required. For information on the operating mechanism of Status Priority tables, refer to the Object Statuses in the *Framework Stat Server User's Guide*.

Warning! Do not change this option without consulting a Genesys technical representative.

DefaultDNSPT

Default Value: ... (an ellipsis)
Valid Values: A list of actions separated by a comma or an ellipsis (three consecutive dots). If you specify a list, it overrides the list hard-coded in the Stat Server Status Priority table.
Changes Take Effect: After restart

This option creates a precedence list of actions, which Stat Server uses to assign status to DNs when there is more than one action occurring at each DN. The `DefaultGroupSPT` option, available in the

initial 7.0 and prior releases, is no longer required. For information on the operating mechanism of Status Priority tables, refer to the Object Statuses in the *Framework Stat Server User's Guide*.

Warning! Do not change this option without consulting a Genesys technical representative.

DefaultRPSPT

Default Value: ... (an ellipsis)
Valid Values: A list of actions separated by a comma or an ellipsis (threeconsecutive dots). If you specify a list, it overrides the list hard-coded in theStat Server Status Priority table.
Changes Take Effect: After restart

This option creates a precedence list of actions, which Stat Server uses to assign status to routing points when there is more than one action occurring at each routing point. The `DefaultGroupRPSPT` option, available in the initial 7.0 and prior releases, is no longer required. For information on the operating mechanism of Status Priority tables, refer to the Object Statuses in the *Framework Stat Server User's Guide*.

Warning! Do not change this option without consulting a Genesys technical representative.

disconnect-from-lca-on-history-log-expired

Default Value: false
Valid Values: true, false
Changes Take Effect: After restart
Introduced: 8.5.102

Controls whether Stat Server disconnects from LCA upon receiving the `HistoryLogExpired` event.

do-backup-in-background

Default Value: yes
Valid Values: yes, no
Changes Take Effect: After restart

Specifies whether Stat Server spawns a separate thread to store statistic definitions in its backup file. If this option is set to yes (the default), Stat Server spawns a separate thread. If it is set to no, Stat Server writes to its backup file using the main thread.

enable-binding

Default Value: no
Valid Values: yes, no
Changes Take Effect: Immediately upon notification

Related Options: binding-threshold

Specifies whether to enable binding functionality. By default, Stat Server uses a regular method of sending requests. If you set the value of this option to yes, Stat Server uses binding for sending requests. This option works in conjunction with the binding-threshold configuration option and is supported for Oracle, Microsoft SQL, and DB2 relational database management systems. The default template does not include this option.

This option was previously named *OracleBinding*.

enable-java

Default Value: false
Valid Values: true, false
Changes Take Effect: After restart, or upon setting the value to true.
Related Options: jvm-path

When you set the value of this option to `true`, Stat Server tries to load JVM at startup. The jvm-path configuration option defines the location of JVM. If you set this value to `false` at Stat Server startup, but later set it to `true`, Stat Server attempts to load JVM at runtime.

Note: Stat Server ignores the change in setting from `true` to `false`. To unload JVM, you must stop Stat Server.

filters-allow-wildcards-in-values

Default Value: no
Valid Values: yes, no
Changes Take Effect: After restart

Specifies whether Stat Server accepts the wild-card characters * and ? in the <value> argument of `PairExist` functions in filters. If this option is set to yes, Stat Server interprets these characters as wildcards. If set to no, Stat Server interprets these as literal characters. Prior to release 7.5, Stat Server interpreted a <value> argument of "*" as *any string* and "*", embedded within a string, as a literal character.

For example, Stat Server interprets the `PairExist(KY1, "Mr.*")` function in one of two ways depending on the value of the `filters-allow-wildcards-in-values` option:

- As a function whose filter returns any statistic where the values for KY1 begin with `Mr.`, if the value of this option is set to yes.

- As a function whose filter returns only those statistics where the value for KY1 is equivalent to the four characters `Mr.*` if the value of this option is set to no.

Stat Server interprets the `PairExist(KY2, "*")` filter as one where KY2 is equal to any number of characters regardless of the value of this option.

generate-stat-validity-events

Default Value: yes
Valid Values: yes, no
Changes Take Effect: After restart

Controls whether Stat Server sends EventStatInvalid and EventStatValid events to Stat Server clients. Setting this option to no can reduce load on Stat Server and its clients in scenarios in which, due to disconnects with T-Server, Stat Server generates large volumes of statvalid and statinvalid messages (in addition to statistic and registration messages) that otherwise could impact Stat Server operation negatively.

This feature is intended to be used in Stat Server applications that service Data Sourcer 7.6-only clients. Setting this option to no is not recommended in Stat Server applications that service other types of clients—especially, Universal Routing Server clients that rely on statvalid/statinvalid events for making routing decisions.

The EventStatInvalid and EventStatValid events are printed in the Stat Server log, when the debug-level option is set to Client:6 (not recommended as it is increasing CPU consumption due to intensive logging).

generate-transfer-taken-on-ringing

Default Value: yes
Valid Values: yes, no
Changes Take Effect: After restart

Controls when Stat Server generates the CallTransferTaken action for a transferred call—either while it is ringing at a regular DN or after it has been answered on that DN.

If this option is set to yes, Stat Server generates CallTransferTaken, as in previous releases:

- If the transfer completes on a regular DN while it is ringing or on some mediation DN before distribution to a regular DN.

- After the call has been answered, if the transfer completes following receipt of EventEstablished on a regular DN.

If this option is set to no, Stat Server does not generate the CallTransferTaken action while the transferred call is ringing. Instead, Stat Server generates this action after the transferred call has been answered (that is, upon receipt of EventEstablished).

Note: Stat Server does not generate the CallTransferTaken action for direct single-step transfers that are made to agents or routing points that are located at different sites, whether or not Stat Server monitors such agents.

identity-in-login-table

Default Value: off
Valid Values: on, off
Changes Take Effect: After restart

Turning this option on enables Stat Server to operate with an Oracle Real Application Clusters (RAC). This option requires a database access point connection to an Oracle RAC database. The user must also initialize their LOGIN table with the oracle/login_oracle.sql script that comes with the Stat Server installation.

ignore-disabled-objects-in-group-statistics

Default Value: no
Valid Values: yes, no
Changes Take Effect: After restart

Specifies whether Stat Server takes into account the `Person` and `Place` objects that are disabled in the Configuration Layer when calculating statistics for corresponding groups of objects.

Setting this option to yes excludes agents and places in the calculation of group status for `CurrentState` statistics as long as the relevant `Person` and `Place` configuration objects are disabled in the Configuration Layer. This option also affects any number-related group statistics in the same manner.

Genesys recommends setting this option to yes in a Stat Server application serving Universal Routing Server, and no (the default) in a Stat Server application serving CCPulse+ and/or CC Analyzer.

ignore-disabled-objects-in-queue-statistics

Default Value: no
Valid Values: yes, no
Changes Take Effect: After restart

In the 8.1.0‾ releases, this option specifies whether Stat Server takes into account disabled `Person` and `Place` objects when calculating certain queue statistics. When this option is set to yes, Stat Server abstains from updating queue statistics having any of the `ActionLogin, AgentReady,` and `AgentActive` actions in the main mask while `Person` and `Place` objects continue to be disabled. When set to no, Stat Server considers all `Person` and `Place` objects—disabled or enabled—and all masks in computations of queue statistics.

Note: The aforementioned statistics are such that actions are propagated from a place to a queue only when an agent is logged on to the place and either of the following:

- Both the agent and place are enabled, in which case the value of this configuration option is irrelevant.

- The agent and/or place is disabled and the value of this option is set to no.

Starting with 8.1.2 release, only the agent should be enabled to be accounted for in queue statistics that use `ActionLogin`, `AgentReady`, and `AgentActive` actions.

ignore-off-hook-on-position

Default Value: no
Valid Values: yes, no
Changes Take Effect: After restart

Specifies whether to ignore `On-Hook`/`Off-Hook` events on `Position` DNs. If this option is set to yes, `On-Hook`/`Off-Hook` events are ignored on `Position` DNs. Use this option if your version of T-Server does not properly propagate `On-Hook` or `Off-Hook` TEvents.

This option was previously named `IgnoreOffHookOnPosition`.

interaction-agent-party-in-progress-on-tenant-max-number

Default Value: 2147483647
Valid Values: Integers 1 through 2147483647
Changes Take Effect: After restart
Introduced: 8.5.110.18

Specifies the maximum allowed number of InteractionAgentPartyInProgress (Tenants) actions. When the threshold is reached, Stat Server does not create any more instances of the InteractionAgentPartyInProgress (Tenants) action, until the number of such actions is below the threshold.

When the debug-level option is set to Server, and the number of InteractionAgentPartyInProgress (Tenants) actions meets or exceeds the configured threshold value, the following message is printed in the Stat Server log once every minute until the number of InteractionAgentPartyInProgress (Tenants) actions is less than the maximum allowed:

"ATTN: Tenant(s) InteractionAgentPartyInProgress actions threshold of <max number> reached"

interaction-agent-party-in-progress-on-tenant-media-list

Default Value: chat
Valid Values: All, Media 1, Media 2, ..., Media N
Changes Take Effect: After restart
Introduced: 8.5.110.18

A comma-separated list of media type names for which the InteractionAgentPartyInProgress (Tenants)

action is generated. All other media types are ignored.

interaction-wait-on-sa-max-number

Default Value: 2147483647
Valid Values: Integers 0 through 2147483647
Changes Take Effect: After restart
Introduced: 8.5.103

Specifies the maximum allowed number of `InteractionWait` (`StagingAreas`) actions. When the threshold is reached, Stat Server does not create any more instances of the `InteractionWait` (`StagingAreas`) action, until the number of such actions falls back below the threshold.

If the debug-level option is set to `Server`, the following message is printed in the Stat Server log every minute while the threshold is reached:
`"ATTN: InteractionWait actions threshold of (Max Number) reached"`

interaction-wait-on-sa-media-list

Default Value: "chat"
Valid Values: "Media 1, Media 2, ..., Media N" or "All"
Changes Take Effect: After restart
Introduced: 8.5.103

Specifies the list of media type name(s) for which the `InteractionWait` (`StagingAreas`) action is generated.

interaction-wait-on-tenant-max-number

Default Value: 2147483647
Valid Values: Integers 1 through 2147483647
Changes Take Effect: After restart
Introduced: 8.5.107

Specifies the maximum allowed number of `InteractionWait` (`Tenants`) actions. When the threshold is reached, Stat Server does not create any more instances of the `InteractionWait` (`Tenants`) action, until the number of such actions falls back below the threshold.

When the debug-level option is set to `Server`, and the number of `InteractionWait` (`Tenants`) actions meets or exceeds the configured threshold value, the following message is printed in the Stat Server log once every minute until the number of `InteractionWait` (`Tenants`) actions is less than the maximum allowed:
`"ATTN: Tenant(s) InteractionWait actions threshold of <max number> reached"`

interaction-wait-on-tenant-media-list

Default Value: "chat"
Valid Values: "Media 1, Media 2, ..., Media N" or "All"

Changes Take Effect: After restart
Introduced: 8.5.107

Specifies the list of media type name(s) for which the `InteractionWait (Tenants)` action is generated. All other media types will be ignored.

ixn-id-in-status-table

Default Value: off
Valid Values: on, off
Changes Take Effect: Immediately upon notification
Related Options: multimedia-activity-in-status-table; enable-binding

Specifies whether Stat Server will populate the `IxnID` field for records written to the STATUS table. If you set this option to `off` or if you do not set configure this option, the `IxnID` field will be null. This field provides functionality, comparable to connection IDs for calls, for Multimedia interactions that rely predominantly on the number generated by Interaction Server for identification in the interaction flow.

Note: If you set this option to on, consider also setting the multimedia-activity-in-status-table configuration option to yes so that Stat Server will record information about the status of multimedia interactions in the other fields of the STATUS table.

Warning! To avoid data loss, do not change the setting of this option in runtime if you have also set enable-binding to yes.

load-balance-aht

Default Value: 90
Valid Values: Positive integers less than 4294967296 (2^{32})
Changes Take Effect: After restart (when defined within the Stat Server Application object)

Specifies the initial value, in seconds, for handling time. Stat Server uses this figure in the operand of the formula for calculating load-balancing of all mediation DNs that Stat Server monitors. Refer to the LoadBalance statistical category in the Stat Server User's Guide for more information about this formula.

You can also configure this value locally within the `Options` of mediation DN objects. A value that is specified at the mediation DN level supersedes the values that are specified within the Stat Server `Application` object for that mediation DN. Refer to the Stat Server Reads Mediation DN Attribute section of the Stat Server Deployment Guide for information about configuring this option within mediation DNs.

Prior to release 8.0, this value was hard-coded at 90 seconds.

local-time-in-status-table

Default Value: off
Valid Values: on, off
Changes Take Effect: Immediately upon notification
Related Options: time-format; enable-binding

Specifies whether to populate the StartLocalTime and EndLocalTime fields in the STATUS table. If you set the value of this option to off, or if you do not specify a value, the StartLocalTime and EndLocalTime fields will contain no data. For Solution Reporting applications, set this option to off; such reports do not use the local time fields, and setting this option to on could affect performance. When setting this option to on, also set the time-format option to the desired format. Refer to the Table and Column Description in the Stat Server Deployment Guide for a complete description of the STATUS table.

This option was previously named LocalTimeInStatusTable.

Warning! To avoid data loss, do not change the value of this option in runtime if you have also set enable-binding to yes.

local-time-in-status-table

Default Value: off
Valid Values: on, off
Changes Take Effect: Immediately upon notification
Related Options: time-format; enable-binding

Specifies whether to populate the StartLocalTime and EndLocalTime fields in the STATUS table. If you set the value of this option to off, or if you do not specify a value, the StartLocalTime and EndLocalTime fields will contain no data. For Solution Reporting applications, set this option to off; such reports do not use the local time fields, and setting this option to on could affect performance. When setting this option to on, also set the time-format option to the desired format. Refer to the Table and Column Description in the Stat Server Deployment Guide for a complete description of the STATUS table.

This option was previously named LocalTimeInStatusTable.

Warning! To avoid data loss, do not change the value of this option in runtime if you have also set enable-binding to yes.

login-table

Default Value: off
Valid Values: on, off
Changes Take Effect: Immediately upon notification

Specifies whether Stat Server writes records about login and logout TEvents directly to the LOGIN table in the Stat Server database. Refer to the The LOGIN Table in the Stat Server Deployment Guide for more information.

This option was previously named `LoginTable`.

management-port

Default Value: 3031
Valid Values: Any available TCP port (Integers 1 through 65535)
Changes Take Effect: After restart

Specifies the TCP/IP port that Stat Server reserves for connections that its SNMP Option Management Client establishes.

Warning! You must specify a value for this option if you are using an SNMP connection. Do not change the value for this option while Stat Server is running.

max-client-connections

Default Value: 0
Valid Values: 0, or any positive integer less than 2147483648 (2^{31})
Changes Take Effect: After restart

Specifies the maximum number of clients that can be connected to Stat Server at any given time. The default value, 0 (zero), means that an unlimited number of clients can be connected to Stat Server.

max-unsent-sql-statements

Default Value: 100000 (SQL statements)
Valid Values: Integers greater than or equal to 100,000 and less than 2147483647 (2^{31}).
Changes Take Effect: After restart

Specifies the maximum number of SQL statements that Stat Server is allowed to maintain in memory. As soon as Stat Server's connection to the RDBMS is broken, Stat Server starts storing SQL statements in memory. These statements will be issued against the Stat Server database once the connection is restored. If the number of SQL statements in memory exceeds the value that is specified by this option, data loss might result.

To avoid data loss, Stat Server must remain connected to DB Server or to database for the entire period of the records submission to the RDBMS. If you use DB Server for connection to RDBMS, your addp timeout for connection from Stat Server to DB Server should be set as large as possible to prevent disconnection by addp. Refer to the Management Framework Deployment Guide for information about setting addp.

If the number of SQL statements in memory ever exceeds this option's value, data loss of the entire memory pool will result and the accumulation of SQL statements will begin anew.

Please be aware that setting this option's value too high might cause your system to run out of memory. Configure this option in conformance with the amount of RAM installed on the machine where Stat Server operates.

If you specify any value that is less than the default (100000), Stat Server resets it to 100000.

mm-agent-logout-optimization

Default Value: false
Valid Values: true, false
Changes Take Effect: After restart
Introduced: 8.5.112.17

Controls Stat Server behavior for multimedia agents logout. The default value `false` provides backward compatibility. The `true` value optimizes multimedia agents logout.

This option is especially beneficial for environments with agents logged into many media channels and the substantial list of associated virtual queues.

mm-media-list-lower-case

Default Value: true
Valid Values: true, false
Changes Take Effect: After restart
Introduced: 8.5.112.18

This option controls how media list items that are configured in the options interaction-wait-on-sa-media-list, interaction-wait-on-tenant-media-list, and interaction-agent-party-in-progress-on-tenant-media-list are compared with interaction types received from Interaction Server. Stat Server's default behavior is to force media list items to lower case before applying case sensitive comparison. Setting this option to `false` applies the case sensitive comparison without any modifications of configured media list items.

mm-skip-reason-changed-events

Default Value: no (for backward compatibility)
Valid Values: yes, no
Changes Take Effect: After restart
Introduced: 8.5.112.16

Prevents incorrect reason filter evaluation and the TotalContinuousNumber statistic calculation in certain scenarios by ignoring any reason change events.
If this option is set to yes, the multimedia reason changed events are ignored for proper calculation of statistics with the applied reason filter.

multimedia-activity-in-status-table

Default Value: yes

Valid Values: yes, no
Changes Take Effect: After restart
Related Options: ixn-id-in-status-table

Specifies whether multimedia-related actions are counted while computing status values that are written to the STATUS table. (For a complete classification of actions, refer to the Stat Server User's Guide.) If this option is set to no, Stat Server ignores multimedia-related actions in its computation of place and agent status.

Stat Server also reads the value of the multimedia configuration option in the TServer section of the monitored DN (whose type is Extension) to determine whether the corresponding DN is a multimedia DN, capable of processing interactions of different media types, such as those DNs that are controlled by a SIP-compliant T-Server. Refer to the Factors Affecting Stat Server in the Stat Server Deployment Guide for more information.

Note: If you set this option to yes, you might also consider setting the ixn-id-in-status-table configuration option to yes so that Stat Server populates the IxnID field for multimedia interactions.

nec-position-extension-linked

Default Value: no
Valid Values: yes, no
Changes Take Effect: After restart

Specifies whether Stat Server applies a special model when processing after-call work (ACW) notifications from NEC T-Server. This model, normally used with Meridian T-Server, consists of Position and Extension DNs linked together in Stat Server logic when they belong to the same phone. Refer to the Stat Server User's Guide for a description of the AfterCallWork action and models for its generation.

Note: For switch types, such as the Nortel Meridian, in which a place is configured with both Position and Extension DNs and in which an agent is required to log in to the Position DN, this option must be set to yes in order for EstimWaitTime and LoadBalance statistics to return expected values.

The option name is case-insensitive.

old-stats-remove

Default Value: yes
Valid Values: yes, no
Changes Take Effect: Immediately
Introduced: 8.5.110.18

If set to no, statistics that have not had connected clients for longer than the time set as the value of the old-stats-remove-interval option are not to be cleaned. If set to yes (the backward-compatibility mode), the statistical garbage-collection is performed.

old-stats-remove-interval

Default Value: 4320
Valid Values: Integers 0 through 2147483647 (2^{31}-1)
Changes Take Effect: After restart

Sets the amount of time, in minutes, that unused statistics should continue to calculate on Stat Server. A value of 0 causes Stat Server to close a statistic as soon as the application requesting it closes its request or disconnects.

This option was previously named `OldStatsRemoveInterval`. The default template does not include this option. The internal, hard-coded default value is 4320 (three days).

position-extension-linked

Default Value: yes
Valid Values: yes, no
Changes Take Effect: After restart

Specifies how Stat Server interprets the status of a place and an agent when the place contains a position and an extension that belong to the same switch.

By default (yes), the status of a DN of the `Extension` type affects the place status under these conditions:

- An agent is logged in at the DN of the `Position` type that belongs to the same place.

- An agent might or might not be logged in at the DN of the `Extension` type.

With the option set to no, the status of the DN of the `Extension` type affects the place status under these conditions:

- An agent might or might not be logged in at the DN of the `Position` type that belongs to the place.

- An agent *must* be logged in at the DN of the `Extension` type.

qinfo-table

Default Value: off
Valid Values: on, off
Changes Take Effect: Immediately upon notification

Specifies whether Stat Server writes records about queue statuses directly to the `QINFO` table in the Stat Server database. Refer to the The QINFO Table in the Stat Server Deployment Guide for more information.

This option was previously named `QInfoTable`.

queue-disable-dcid-for-missed-calls

Default Value: no
Valid Values: yes, no
Changes Take Effect: After restart

Controls whether Stat Server ignores the `CONNID` attribute of the `ACWMissed` and `CallMissed` actions on mediation DNs. In environments that contain a large number of origination DNs, setting this option to yes has the beneficial side effect of improving Stat Server performance as well as the unfortunate effect of Stat Server no longer being able to distinguish interactions by connection ID when `Formula` is set to DCID for statistics that have the `ACWMissed` and/or `CallMissed` actions specified in the main mask.

queue-use-pseudo-actions

Default Value: true
Valid Values: true, false
Changes Take Effect: After restart

Restricts Stat Server's use of the following mediation DN actions to unfiltered statistics defined using the `CurrentNumber` or `CurrentRelativeNumberPercentage` statistical categories:

- `DNLogin`
- `DNActive`
- `DNReady`
- `AgentLogin`
- `AgentActive`
- `AgentReady`

If this option is set to `true`, Stat Server enables this restriction and minimizes the possible overhead that could results in environments that contain a large number of origination DNs assigned to `GroupPlaces` or `GroupAgents` objects. If it is set to `false`, all statistical categories (but not filters) will be applicable to the listed actions.

reconnect-timeout

Default Value: 10
Valid Values: Positive integers less than or equal to 2147483; Stat Server sets any negative or 0

values that you might configure to 10.
Changes Take Effect: After restart
Modified: 8.5.104

Indicates the time interval, in seconds, between Stat Server attempts to reconnect to a T-Server or the database (DB Server if [db-direct-connection]/enable is set to no) if either is disconnected or not running.

This option was previously named reconnect_timeout (spelled with an underscore).

reg-delay

Default Value: 0
Valid Values: 0 (zero) or positive integer less than or equal to 2147483
Changes Take Effect: After restart
Modified: 8.5.104

Causes Stat Server to wait the specified number of seconds before registering DNs that have been added to Configuration Server.

This option was previously named reg_delay (spelled with an underscore).

reg-dns-chunk-delay

Default Value: 10
Valid Values: Positive integers less than or equal to 2147483
Changes Take Effect: After restart
Modified: 8.5.104
Related Options: reg-dns-chunk-volume

Specifies the interval, in seconds, between two subsequent registration requests. Stat Server waits for the specified interval before sending a request to T-Server to register a subsequent set of DNs, thus allowing T-Server to process the previous request.

In a large configuration environment, use this option in conjunction with reg-dns-chunk-volume to optimize DN registration at Stat Server startup.

reg-dns-chunk-volume

Default Value: 1000

Valid Values: Positive integers less than 4294967296 (2^{32})
Changes Take Effect: After restart
Related Options: reg-dns-chunk-delay

Specifies the number of DNs that Stat Server submits in a single registration request to T-Server. Instead of trying to register for all configured DNs at once, Stat Server divides the DN registration among several requests, each for the specified number of DNs.

In a large configuration environment, use this option in conjunction with reg-dns-chunk-delay to

optimize DN registration at Stat Server startup.

reg-error-delay

Default Value: 0
Valid Values: 0 (zero) or positive integer less than or equal to 2147483
Changes Take Effect: After restart
Introduced: 8.5.105

Specifies the minimal/least interval, in seconds, between the failed DN registration attempt and the next registration attempt. Since Stat Server registers DNs in chunks, the actual interval between registration attempts also depends on the value of the reg-dns-chunk-delay option.

reg-error-max-count

Default Value: 0
Valid Values: 0 (zero) or positive integer less than or equal to 2147483647
Changes Take Effect: After restart
Introduced: 8.5.105

Specifies the number of additional DN registration attempts if the initial registration request fails. The time between attempts is specified by the value of the reg-error-delay and reg-dns-chunk-delay options.

rp-handle-queueing-events

Default Value: no
Valid Values: yes, no
Changes Take Effect: After restart

Controls Stat Server's recognition of the `CallState` attribute of `EventQueued` and `EventRouteRequest` TEvents that occur at routing points. If this option is set to yes, Stat Server analyzes the `CallState` attribute value on `EventQueued` and `EventRouteRequest` TEvents that might occur at routing points. If it is set to no, Stat Server ignores `EventQueued` TEvents that occur at routing points and considers only `EventRouteRequest` TEvents when it analyzes the `CallState` attribute.

Setting this option to yes enables Stat Server to count the correct number of transfers that are taken for single-step transferred calls that pass through routing points in a single-site environment, such as SIP Server.

send-timeout

Default Value: 300
Valid Values: 60-3600 (1 hour)
Changes Take Effect: After restart

Specifies the interval, in seconds, that Stat Server keeps client requests in the output queue. When this timeout expires for a given client request, Stat Server disconnects this client as being "too slow." Consider increasing this option's value in an environment with a slow network or where client disconnects are frequent.

show-attached-data

Default Value: no
Valid Values: yes, no
Changes Take Effect: Immediately upon notification

Beginning with release 8.1.2, this option is obsolete. Refer instead to the description of the `default-filter-type` log option.

For Stat Server 8.1.0 and prior releases, if this option is set to yes, Stat Server outputs call-extracted UserData to the Stat Server log. If it is set to no, Stat Server stops outputting attached data to its log—regardless of the log-level setting (`trace`, debug, and so forth). T-Server propagates attached data (UserData) by way of TEvents; this data is used for internal computations.

To output `UserData` to the log, in the `Filters` section of the Stat Server application object, add a `PairExist("key","value")` filter where key is the name of the `UserData` key; value may denote a specific value or `"*"`.

Setting this option does not affect Stat Server's processing of `UserData`. For memory, performance, and security reasons, however, Stat Server strips away any attached data that is not directly used for internal computations. Refer to the `UserData` property in the Call Properties table of the *Stat Server User's Guide* for more information.

show-queued-interactions

Default Value: no
Valid Values: yes, no
Changes Take Effect: Immediately upon notification

Controls the appearance of the list of queued interactions for mediation DNs in the Stat Server log. When this option is set to yes, the Stat Server log will contain log entries for every interaction within each mediation DN. When it is set to no, Stat Server displays only the number of interactions in the mediation DN.

Note: This option does not pertain to interaction queues that are controlled by Interaction Server.

stat-file-show-clients-list

Default Value: false
Valid Values: true, false
Changes Take Effect: Immediately
Introduced: 8.5.107

Specifies whether Stat Server writes client connection details in the `StatFile` log file.

stat-file-show-options

Default Value: false
Valid Values: true, false
Changes Take Effect: Immediately
Introduced: 8.5.107

Controls whether Stat Server configuration options are shown in the `StatFile` log file.

stat-file-timeout

Default Value: 10
Valid Values: Positive integers less than 65536
Changes Take Effect: Immediately
Introduced: 8.5.107

Specifies the amount of time, in seconds, that Stat Server must wait after adding a record to the `StatFile` log file, before it can write another record. Set this option to a large value if you need to minimize the amount of hard drive space that is consumed by the `StatFile` log file.

status-table

Default Value: off
Valid Values: on, off
Changes Take Effect: Immediately

Specifies whether Stat Server writes records about agent statuses directly to the STATUS table in the Stat Server database. Refer to the The STATUS Table in the Stat Server Deployment Guide for more information.

This option was previously named `StatusTable`.

status-table-update-end-time-at-end-only

Default Value: no
Valid Values: yes, no

Changes Take Effect: After restart

Setting this option to yes enables Stat Server to update EndTime and EndLocalTime fields of the STATUS table for long running statuses only once, after those statuses have ended. Stat Server also sets the EndTime and EndLocalTime fields of the STATUS table to 0 (zero) during updates, provided that the corresponding status has not yet ended. A zero value implies 0 for integer fields and "" (empty string) for character fields. As soon as the status completes, Stat Server updates those fields with the time that the status ended.

subscribe-for-all-ixn-server-events

Default Value: no
Valid Values: yes, no
Changes Take Effect: After restart

Limits the types of events that Stat Server receives from Interaction Server and, as a result, improves performance for environments that regularly handle a high volume of interactions. If this option is set to no, Stat Server subscribes from Interaction Server for place-related events only.

Note that because Stat Server will not receive other types of events, this setting might cause Stat Server to miscalculate other than place-related statistics. A change in userdata that is detected by Interaction Server, for instance, will not be known to Stat Server because Interaction Server will not transmit event_properties_changed events when this option is set to no.

In order to receive all Reporting protocol events, this option must be set to yes at all times.

suppress-agent-status-updates-for-ixn-server

Default Value: no
Valid Values: yes, no
Changes Take Effect: Immediately upon notification

Enables suppression of EventCurrentAgentStatus notifications by Stat Server in environments that deploy multiple Stat Server applications. Disabling this statistic request from select clients avoids situations in which Stat Server clients receive multiple and identical notifications about current status for the same agent.

suppress-user-data

Default Value: undefined
Valid Values: yes or no when the option is defined
Changes Take Effect: Upon DN re-registration
Introduced: 8.5.104

If this option is not defined, there is no change to the existing Stat Server behavior. If the option is defined, its value overrides the value of the suppress-user-data option of Switch and/or DN objects. If the option is defined but the value is missing or wrong, then it is considered as defined no value.

time-format

Default Value: %m/%d/%Y %H:%M:%S
Valid Values: See table for a complete listing of valid time formats.
Changes Take Effect: After restart
Dependencies: local-time-in-status-table = yes

Specifies the time format of data stored in the `StartLocalTime` and `EndLocalTime` fields in the STATUS table. You must set the local-time-in-status-table option to yes to use the `time-format` option.

The format string consists of one or more codes preceded by a percent sign (%). Character strings that do not begin with % are copied unchanged to `strDest`.

This option was previously named `TimeFormat`.

Example:

Suppose you are using the default time format %m/%d/%Y %H:%M:%S. If the start time for a particular state is Tuesday, January 1, 1999, at 3 PM and 10 seconds, character data stored in the STARTLOCALTIME field in the STATUS table is stored as `01/01/1999 15:00:10`. Changing the format codes for the date in the `time-format` option to %Y/%m/%d means the date is stored in the international date format as 1999/01/01. Spaces can also be used. For example, %Y %m %d would store as `1999 01 01`.

Valid Time-Format Codes:

Format Code	Description
%a	Abbreviated weekday name
%A	Full weekday name
%b	Abbreviated month name
%B	Full month name
%c	Date and time representation appropriate for locale
%d	Day of month as decimal number (01-31)
%H	Hour in 24-hour format (00-23)
%I	Hour in 12-hour format (01-12)
%j	Day of year as decimal number (001-366)
%m	Month as a two-digit number (01-12)
%M	Minute as a two-digit number (00-59)
%p	Current locale's AM/PM indicator for 12-hour clock
%S	Second as decimal number (00-59)
%U	Week of year as a two-digit number, with Sunday as the first day of week (00-51)

Format Code	Description
%w	Weekday as a one-digit number (0-6; Sunday is 0)
%W	Week of year as decimal number, with Monday as first day of week (00-51)
%x	Date representation for current locale
%X	Time representation for current locale
%y	Year without century, as a two-digit number (00-99)
%Y	Year with century, as a four-digit number
%z, %Z	Time-zone name or abbreviation; no characters if timezone is unknown
%%	Percent sign
%#c	Long date and time representation, appropriate for current locale; for example, Wednesday, March 14, 2001, 12:41:29
%#x	Long date representation, appropriate to current locale; for example, Wednesday, March 14, 2001
#	The pound sign (#) can precede any formatting code. This changes the meaning of the format code as shown in entries with the pound sign in this table. **Notes:** • The pound sign is ignored in these format codes: %#a, %#A, %#b, %#B, %#p, %#X, %#z, %#Z, %#% • The pound sign in these format codes removes any leading zeroes: %#d, %#H, %#I, %#j, %#m, %#M, %#S, %#U, %#w, %#W, %#y, %#Y

use-server-id

Default Value:
Valid Values: Any integer from 0 (zero) to 63
Changes Take Effect: Immediately
Related Options: status-table

This option prevents constraint-violation errors from occurring in a database when more than one Stat Server application attempts to write to the same database. If only one Stat Server application writes to the same database table or you have set the value of the status-table option to no, you do not have to specify a value for this option. The default template does not include this option.

To set this option, enter any number from 0 to 63. Use a different value for each Stat Server application writing to the same database table. Each Stat Server application uses its assigned value to generate internally stored IDs.

Note: Configure this option only for those Stat Server applications writing to the same database and monitoring different switches. Do not configure Stat Server applications to write to the same database if they monitor the same switches.

This option was previously named `UseServerID`.

vag-statistics-active-agents-only

Default Value: no
Valid Values: yes, no
Changes Take Effect: After restart

Limits the membership of virtual agent groups to only those active agents satisfying a particular script condition. (An active agent is Person object that has been enabled in Configuration Server.)

voice-reasons-table

Default Value: no
Valid Values: yes, no
Changes Take Effect: Immediately upon notification

Specifies whether Stat Server stores the reasons for agents to change or continue Ready and NotReady states and `AfterCallWork` work mode. If this option is set to yes, Stat Server writes the reasons records directly to the `VOICE_REASONS` table in the Stat Server database. Refer to the The VOICE_REASONS Table in the Stat Server Deployment Guide for more information.

vq-clean-call-details-upon-party-changed

Default Value: yes
Valid Values: yes, no
Changes Take Effect: After restart

Controls whether Stat Server cleans up virtual queue related call tracking details upon receiving `EventPartyChanged` TEvent.

vq-ignore-third-party-dn

Default Value: yes
Valid Values: yes, no
Changes Take Effect: Upon DN re-registration

Controls whether Stat Server relies on the `ThirdPartyDN` attribute of `EventDiverted` TEvents to determine the DN to which a call was diverted from a given virtual queue.

vq-treat-unknown-third-party-dn-as-agent-dn

Default Value: yes
Valid Values: yes, no
Changes Take Effect: After restart
Dependencies: vq-ignore-third-party-dn = false

Indicates whether Stat Server generates the `CallAnswered` action for virtual queue objects in the following scenario:

1. Stat Server receives an `EventDiverted` TEvent for the virtual queue.

2. The `ThirdPartyDN` attribute value of this TEvent contains the ID of an unknown DN—one that is monitored by a switch other than that to which the virtual queue belongs.

3. The call is subsequently routed to an agent.

If this option is set to `true`, Stat Server generates the `CallAnswered` action under the preceding circumstances. If it is set to `false`, Stat Server does not generate this action under the same circumstances.

If the `ThirdPartyDN` attribute value is null or contains an ID that coincides with that of the answering DN, Stat Server generates the `CallAnswered` action on virtual queue objects, regardless of this option's setting.

Note: The vq-ignore-third-party-dn option must be set to `false` in order for Stat Server to consider the value of this option.

vq-use-alt-enter-time

Default Value: no
Valid Values: yes, no
Changes Take Effect: After restart
Related Options: use-alt-enter-time

Controls whether Stat Server uses an alternative enter time when it calculates the durations of some actions in some scenarios that involve virtual queues. Specifically, prior to release 7.6.100.43, when Stat Server received Event PartyChanged with `CallState=ok` on a virtual queue and the connection ID differed from the previous connection ID (`Connid!=PreviousConnid`), Stat Server considered each receipt of `EventPartyChanged` to constitute a new call and, therefore, reset the durations of the following retrospective actions:

- `CallAnswered`

- `CallDistributed`

- `CallAbandoned`

- `CallAbandonedFromRinging`

- `CallRingingPartyChanged`

- `CallForwarded`

- `CallCleared`

Beginning with release 7.6.100.43, Stat Server supports this scenario by *not* updating the enter time—this becomes the "alternate enter time"—that is associated with the previously listed actions when either the `vq-use-alt-enter-time` option or use-alt-enter-time local DN-level option is set to yes. The scenario, where `Connid!=PreviousConnid`, is common in some SIP deployments in which Stat Server receives multiple `EventPartyChanged` TEvents for a call that remains in a virtual queue waiting for its target to become available.

warn-unsent-sql-statements

Default Value: 5000 (SQL statements)
Valid Values: Any positive value, both less than 2147483648 (2^{31}) and less than the value that is specified by the max-unsent-sql-statements configuration option
Changes Take Effect: After restart
Related Options: max-unsent-sql-statements

Defines the threshold upon which Stat Server begins logging warning messages about the number of unsent SQL statements.

To avoid data loss, Stat Server must remain connected to DB Server or to database for the entire period of the records submission to the RDBMS. If you use DB Server for connection to RDBMS, your addp timeout for connection from Stat Server to DB Server should be set as large as possible to prevent disconnection by addp. Refer to the Management Framework Deployment Guide for information about setting addp.

xx-disconnect-clients-on-ixn-server-disconnect

Default Value: no
Valid Values: yes, no
Changes Take Effect: After restart

Controls whether Stat Server disconnects all clients—including voice clients—upon receiving notification of disconnection from Interaction Server.

In large environments, setting this option to yes enables Stat Server to handle more efficiently Interaction Server disconnections by ceasing to open new statistics from Stat Server clients—a time-consuming operation in very large environments. It is assumed that you will perform the reconnection after the Interaction Server disconnect has been resolved.

Agent or Place

The following option is defined on the `Options` tab in the `Advanced View (Annex)` of the Agent or Place object in the **[budget]** section:

- <media type name>

<media type name>

Default Value: No default value
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the settings of the `default-agent-budget` option on MediaType and Tenant levels for a giving MediaType.

Switch

statserver Section

The following options are defined on the Options tab of the Switch object in the statserver section:

- position-extension-linked
- suppress-user-data

position-extension-linked

Default Value: Depends on the switch type (see description)
Valid Values: yes, no
Changes Take Effect: On Stat Server start

This option is a static boolean option that can be configured for any switch.

If this option is taken into account and is set to yes (or is yes by default), then the corresponding switch is treated as the Meridian-like switch (position and extension DNs on the same place are considered linked if no more than one position/extension pair is configured on a place and agent is logged into a position DN only).

Please note that for some switches this new option is ignored (see table below).

Switch type	Default value	Comments
NortelMeridian	n/a	option is ignored
NortelMeridianCallCenter	n/a	option is ignored
NortelCommunicationServer2000/2100	n/a	option is ignored
CiscoCallManager	no	
IntecomIBX80	yes	
EricssonMD110	yes	
AastraMX1	yes	
NEC	no	NEC switch is treated as the Meridian-like switch if any (or both) of the following options are set to true:

Switch type	Default value	Comments
		`nec-position-extension-linked`, configured on the Stat Server application, `position-extension-linked`, configured on the switch.
NECSV7000	no	NECSV7000 switch is treated as the Meridian-like switch if any (or both) of the following options are set to `true`: `nec-position-extension-linked`, configured on the Stat Server application, `position-extension-linked`, configured on the switch.
All other types	no	

Note 1: The Stat Server option position-extension-linked is used completely independently.

Note 2: An attempt to log in an agent on an extension DN for the Meridian-like switch causes incorrect Stat Server behavior due to pending NotReady state of this extension.

suppress-user-data

Default Value: no
Valid Values: yes, no
Changes Take Effect: Upon DN re-registration

Determines whether Stat Server should transmit call-extracted attached data to Stat Server clients for the particular DN on which the option was set or for all DNs registered on a switch. Configure this option in the [statserver] section on the Options tab of Switch and/or DN objects. See To Suppress the Transmission of Attached Data in the Stat Server Deployment Guide for more information.

DN

Stat Server–related options are configured in the `statserver` or TServer sections on DNs.

statserver Section

The load-balance-aht (configured on the Stat Server application) and suppress-user-data (configured on the `Switch` object) options can be also configured on the `Options` tab of the DN object in the `statserver` section.

The following options are defined only on the `Options` tab of the DN object in the `statserver` section. The `media-type` option is only applicable for a `Virtual Queue` object.

- media-type
- use-alt-enter-time

media-type

Default Value: No default value
Valid Values: Any value, preconfigured within Configuration Server—in the `Business Attributes/ MediaType` folder in Genesys Administrator
Changes Take Effect: Immediately upon notification
Modified: 8.5.102

Determine the media type of interactions that the virtual queue has been configured to handle. This option is set only for a `Virtual Queue` object. Only one media type should be configured for any given virtual queue. Starting with Stat Server release 8.5.102, `voice` is a valid value.

use-alt-enter-time

Default Value: no
Valid Values: yes, no
Changes Take Effect: Immediately upon notification

Determines whether Stat Server should use an alternative enter time when calculating the duration of some actions in some scenarios that involve virtual queues. The value of this dynamic option overrides the value of the vq-use-alt-enter-time global option that is set in the Stat Server application.

TServer Section

The following option is defined on the `Options` tab of the DN object in the `TServer` section.

- multimedia

multimedia

Default Value: no
Valid Values: yes, no
Changes Take Effect: Immediately upon notification

Determine whether the DN is capable of handling multiple, simultaneous interactions of differing media types.

MediaType

The following options are defined on the `Options` tab in the `Advanced View (Annex)` of the MediaType object in the **[budget]** section:

- default-agent-budget
- default-cost
- default-cost-consult

- default-cost-inbound
- default-cost-internal
- default-cost-outbound

- default-cost-unknown

default-agent-budget

Default Value: No default value
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the settings of the `default-agent-budget` on the Tenant level for a given MediaType.

default-cost

Default Value: No default value
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the settings of the `default-cost` option on the Tenant level for a given MediaType.

default-cost-consult

Default Value: No default value
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the settings of the `default-cost-consult` and `default-cost` options on the Tenant level for a given MediaType.

default-cost-inbound

Default Value: No default value
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the settings of the `default-cost-inbound` and `default-cost` options on the Tenant level for a given MediaType.

default-cost-internal

Default Value: No default value
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the settings of the `default-cost-internal` and `default-cost` options on the Tenant level for a given MediaType.

default-cost-outbound

Default Value: No default value
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the settings of the `default-cost-outbound` and `default-cost` options on the Tenant level for a given MediaType.

default-cost-unknown

Default Value: No default value
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the settings of the `default-cost-unknown` and `default-cost` options on the Tenant level for a given MediaType.

Tenant

The following options are defined on the `Options` tab in the `Advanced View (Annex)` of the Tenant object in the **[budget]** section:

- default-agent-budget
- default-cost
- default-cost-consult

- default-cost-inbound
- default-cost-internal
- default-cost-outbound

- default-cost-unknown
- enabled
- interaction-cost-key

default-agent-budget

Default Value: 0
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

Default agent budget for any media type.

default-cost

Default Value: 0
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

Default interaction cost for any media type.

default-cost-consult

Default Value: the value of the default-cost option
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the `default-cost` option for any media type for the particular Tenant.

default-cost-inbound

Default Value: the value of the default-cost option
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the `default-cost` option for any media type for the particular Tenant.

default-cost-internal

Default Value: the value of the default-cost option
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the `default-cost` option for any media type for the particular Tenant.

default-cost-outbound

Default Value: the value of the default-cost option
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the `default-cost` option for any media type for the particular Tenant.

default-cost-unknown

Default Value: the value of the default-cost option
Valid Values: 0 - 2147483647
Changes Take Effect: Immediately
Introduced: 8.5.110

If defined, overrides the `default-cost` option for any media type for the particular Tenant.

enabled

Default Value: false
Valid Values: true, false
Changes Take Effect: Immediately
Introduced: 8.5.110

Enables the budget model. If set to false, Stat Server does not provide the budget information in the `CurrentTargetState` statistic on agents. This option is recognized by URS.

interaction-cost-key

Default Value: InteractionCost
Valid Values: <key name>
Changes Take Effect: Immediately
Introduced: 8.5.110

Specifies the key in `UserData`, where the interaction cost is specified. If changed, all future interactions are affected. This option is recognized by URS.