GENESYS

Interaction Concentrator Deployment Guide

Switch Options

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Switch Options

This section describes the configuration options that you configure on the **Annex** tab of any Switch configuration object that is monitored by a T-Server related to your Interaction Concentrator. Interaction Concentrator processes these options.

Important

The information in this section does not apply to Multimedia switches.

gts Section
All the Switch configuration options that affect Interaction Concentrator behavior are contained in a special configuration section, gts. If required, you must create this section on the **Annex** tab of the Switch object.

call-deletion-timeout Option
delivered-flag Option
emulate-event-queued-extrp
emulate-event-queued-rp
emulate-event-queued-rq
fix-time-stamps
gls-acw-first
gls-associations-rule
gls-enable-acw-busy
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third-party-queue-in-divert

call-deletion-timeout

Specifies the amount of time, in seconds, that ICON delays call context deletion after receiving a notification that the call has been deleted in T-Server.

- Configured in: Switch Application
- Default value: 30
- Valid values: 3–600
- Changes take effect: Immediately

delivered-flag

Controls when an unmonitored party is reconstructed (regarding an event flow), and when a transition to the alerting state occurs for this party in the call to an external destination (regarding the switch).

- Configured in: Switch `Application` object, Annex tab, `[gts]` ection
- Default values:
    - `0`—(For all switches except Cisco CallManager)
    - `1`—(For Cisco CallManager)
- Valid values:
    - `0`—The alerting state is generated when EventDialing arrives.
    - `1`—The alerting state is generated when EventNetworkReached arrives.
    - `2`—The alerting state is generated when EventEstablished arrives.
    - `3`—An unmonitored party is not reconstructed.
- Changes take effect: After restart

> **Tip**
> Genesys Customer Care recommends that you set the value of this option to 3 only for a particular event flow.

emulate-event-queued-extrp

Enables the emulation of EventQueued for an External Routing Point that belongs to this switch.

Important

Generation of EventQueued for an External Routing Point depends on a particular T-Server and its switch. ICON requires this event for correct party representation in any environment.

- Configured in: Switch `Application` object, Annex tab, `[gts]` section
- Default value: 1
- Valid values:
    - 0—EventQueued is not emulated.
    - 1—EventQueued is emulated.
- Changes take effect: Immediately

Important

For help setting this option correctly, contact Genesys Customer Care.

emulate-event-queued-rp

Enables the emulation of EventQueued for a Routing Point that belongs to this switch.

> ### Important
> Generation of EventQueued for a Routing Point depends on a particular T-Server and its switch. ICON requires this event for correct party representation in any environment.

- Configured in: Switch Application
- Default value: 1
- Valid values:
    - 0—EventQueued is not emulated.
    - 1—EventQueued is emulated.
- Changes take effect: Immediately

> ### Important
> For help setting this option correctly, contact Genesys Customer Care.

emulate-event-queued-rq

Enables the emulation of EventQueued for a routing queue that belongs to this switch.

Important

Generation of EventQueued for a routing queue depends on a particular T-Server and its switch. ICON requires this event for a correct party representation in any environment.

- Configured in: Switch Application
- Default value:1
- Valid values:
    - 0—EventQueued is not emulated.
    - 1—EventQueued is emulated.
- Changes take effect: Immediately

Important

For help setting this option correctly, contact Genesys Customer Care.

fix-time-stamps

Enables adjustment of timestamps when the CTI event contains an earlier timestamp than the timestamp from a previously received CTI event.

- Configured in: Switch Application
- Default value: `0`
- Valid values:
  - `0`—Adjustment is disabled.
  - `Any non-zero integer`—Adjustment is enabled.
- Changes take effect: After restart

gls-acw-first

Specifies which interaction ICON associates with after-call work (ACW). This option is configured in the ICON Application, or in the Switch Application, or both. If it is set only in the ICON Application, it applies to all switches ICON is configured to monitor. If any Switch is set with a value different from that set in the ICON Application, the Switch value takes precedence.

By default, ICON associates after-call work metrics with the voice interaction that immediately precedes the completion of the after-call work (the last voice interaction).

Setting this option to `true` enables ICON to associate after-call work with the voice interaction that most recently changed the agent's state from NotBusy to Busy (the first voice interaction). In this case, subsequent voice interactions that occur during the period of after-call work are considered as related to ACW processing and should not interrupt measurement of ACW-related metrics.

When the agent logs out, changes his or her state to Ready, or goes NotReady for any reason other than to perform after-call work, ICON reports the end of the current ACW state.

- Configured in: ICON Application, `[callconcentrator]` Section; Switch Application, Annex tab, `[gts]` Section

ICON Application Settings:

- Default value: `false`
- Valid values:
  - `false`—ICON associates the last voice interaction with after-call work.
  - `true`—ICON associates the first voice interaction with after-call work.
- Changes take effect: After restart

Switch Application Settings:

> ### Important
> To associate the first ACW value, specify the value of this option on the Switch Application. A change to the setting of this option on the ICON Application does not propagate to SIP switches.

- Default value: `-1`
- Valid values:
  - `-1`—ICON uses the value of the `gls-acw-first` option specified in the ICON Application object. If no value is set at the application level, ICON associates the last voice interaction with after-call work.
  - `0`—ICON associates the last voice interaction with after-call work.
  - `1`—ICON associates the first voice interaction with after-call work.

- Changes take effect: After restart

> ### Important
>
> For SIP switches, the default value results in the same functionality as setting the option to 0.

gls-associations-rule

Controls, for this switch, how ICON associates DNs with a given agent login session. You can configure DN associations in Configuration Layer in two ways:

- By adding DNs to the same Place object. (For example, a DN of Position type and DN of Extension type on the same phone set on an Avaya switch must belong to the same Place. Another example involves DNs of different media types that are included into the same Place.)

- By creating a relationship between two DNs through the Association field in the DN Properties window.

The `gls-associations-rule` option enables ICON to process signaling on the associated DNs as follows:

- With the setting of `-1`, ICON creates two separate login sessions for an agent who logs in with two different login IDs at two DNs that belong to the same place. For example, when one DN is used for multimedia interactions and another DN is used for voice interactions, ICON handles agent login sessions at these two DNs separately.

- With the setting of `0`, ICON creates a single login session for two DNs that belong to the same place when an agent logs in at one of these DNs. For example, when an agent logs in at a position DN and an extension DN exists on the same phone set, ICON maintains a single login session for these two DNs.

- With the setting of `1`, ICON creates a single login session for two DNs that are related through the Association field when an agent logs in at one of these DNs. For example, when an agent logs in to different queues from two associated DNs, ICON maintains a single login session for these two DNs.

- Configured in: Switch Application

- Default values:

  - -1—(For SIP switches)

  - 0—(For all switches except SIP)

- Valid values:

  - -1—ICON associates each DN with a separate login session.

  - 0—ICON associates a single login session with multiple DNs at a place.

  - 1—ICON associates a single login session with two DNs associated through configuration.

- Changes take effect: After restart

gls-enable-acw-busy

Specifies, for this switch, whether ICON should continue ACW and NotReady agent states when agents place or receive calls during the period of time that after-call work or NotReady agent state were invoked.

The following IDB tables are affected by this option: G_AGENT_STATE_HISTORY, G_AGENT_STATE_RC, GS_AGENT_STAT, GS_AGENT_STAT_VM. For a description of these tables, refer to the IDB schema chapter in the Interaction Concentrator 8.1 User's Guide.

- Configured in: Switch Application
- Default value: 1
- Valid values:
    - 0—ICON continues ACW and NotReady agent states while an agent is handling another call.
    - 1—ICON interrupts ACW and NotReady agent states while the agent handles another call.
- Changes take effect: After restart

ICON recognizes completion of after-call work when any of the following occur:

- The agent logs out.
- The agent places himself/herself in Ready mode.
- The agent goes NotReady for any reason other than to perform after-call work. (This includes indirect work mode changes such as when the agent walks away from his or her desk for a period of time.)

Important

This option is not valid for SIP-compliant switches that handle interactions other than voice interactions.

gls-flag-on-disconnect

Specifies how ICON handles agent states when disconnecting from, and reconnecting to, T-Server.

- Configured in: Switch Application
- Default value: 0
- Valid values:
  - 0—When reconnecting to T-Server, ICON compares the agent state from its memory with the state from EventRegistered. If the in-memory state does not match the currently reported agent state, ICON updates the agent state in both its internal memory and IDB. When disconnecting from T-Server, ICON performs no actions specific to agent states.
  - 1—When disconnecting from T-Server, ICON closes any existing agent login sessions, and records this fact in IDB. When reconnecting to T-Server, ICON uses information from EventRegistered to start new agent login sessions, sets the current agent states, and writes this data to IDB.
  - 2—When disconnecting from T-Server, ICON does not close any existing agent login sessions. Instead, it changes agents' states to UNKNOWN, and records these new states in IDB. When reconnecting to T-Server, ICON uses information from EventRegistered to restore the current agents' states and write them to IDB.
- Changes take effect: Immediately

Important

- Genesys recommends setting this option to 0 when the switch is monitored by T-Server 7.6.
- Genesys recommends that you do not set the value of this option to 1 for deployments supporting HA of agent data. If you choose to set this option to 1, however, a limited amount of HA agent data will be available (event sequence numbers only) provided that you also set the gls-use-ts-id configuration option in the [gts] section to 0 on the Switch **Annex** tab.

gls-improve-data-for-agent

Specifies when ICON should process agent states data in two-step transfer and conference scenarios.

> **Important**
>
> Genesys Info Mart customers should use the default value for this option.

- Configured in: Switch Application
- Default value: 0
- Valid values:
    - 0—EventCallDeleted triggers agent states data processing (legacy behavior).
    - 1—Enables ICON to process agent states data based on EventReleased and store a more accurate value of PartyID in the G_AGENT_STATE_HISTORY table when a record describes one of the following:
        - An agent state changing from Busy to another state
        - An agent state changing from Busy to Busy
        - An agent state changing to ACW
- Changes take effect: After ICON is restarted

gls-max-duration

Specifies the maximum amount of time, in hours, that an agent login session can last on a DN that belongs to this switch. Setting the option value to 0 (zero) prevents ICON from checking session durations.

- Configured in: Switch Application
- Default value: 0
- Valid values: Any integer from 0 to 720
- Changes take effect: Immediately

In deployments that use T-Server release 7.6 or later, ICON ignores the `gls-max-duration` option. With T-Server release 7.6 and later, T-Server generates agent login session IDs and controls the login sessions. In this case, the `gls-max-duration` option has no effect on ICON reporting.

Earlier releases of T-Server do not provide agent login session IDs. In these cases, ICON generates its own agent login session IDs, and uses the `gls-max-duration` and `gls-max-inactivity` options to help manage reporting on agent login session activity.

gls-max-inactivity

Specifies the maximum allowed inactivity period, in hours, during a single login session. ICON closes any agent login session for which no agent-related activity is detected during the specified interval. Setting the option value to 0 (zero) prevents ICON from checking inactivity durations.

- Configured in: Switch Application

- Default value: 0

- Valid values: Any integer from 0 to 72

- Changes take effect: Immediately

In deployments that use T-Server release 7.6 or later, ICON ignores the gls-max-inactivity option. With T-Server release 7.6 and later, T-Server generates agent login session IDs and controls the login sessions. In this case, the gls-max-inactivity option has no effect on ICON reporting.

Earlier releases of T-Server do not provide agent login session IDs. In these cases, ICON generates its own agent login session IDs, and uses the gls-max-duration and gls-max-inactivity options to help manage reporting on agent login session activity.

gls-use-ts-id

Specifies whether ICON uses the login session ID generated by T-Server (GUID) or by itself when connecting to, or disconnecting from, T-Server.

- Configured in: Switch Application
- Default value: 1
- Valid values:
    - 0—ICON generates the login session ID itself.
    - 1—ICON uses the login session ID (GUID) generated by T-Server.
- Changes take effect: After restart

> **Important**
>
> If you set this option to 0, make sure you also set the `gls-flag-on-disconnect` option to 1 in order to access available HA agent data.

gts-dnis-detection

Specifies how the value of DNIS is determined for outbound calls.

- Configured in: Switch Application
- Default value: `0`
- Valid values: `0`, `1`
    - `0`—The DNIS is captured only from the attributeDNIS value in the TEvents related to the outbound call.
    - `1`—An extended algorithm will be used to find the value of the DNIS.
- Changes take effect: After restart

min-tsync-roundtrip

Specifies the amount of time, in milliseconds, allowed for messages sent from ICON to T-Server to be acknowledged by T-Server, for the purposes of time synchronization. All messages that are acknowledged within the specified round-trip delay are considered valid for the purposes of calculating the time difference between the ICON host and the T-Server host.

See also the `tsync-threshold` option in the ICON Application object.

- Configured in: Switch Application
- Default value: 50
- Valid values: 0–500 (0 indicates that no calculation will be performed)
- Changes take effect: Immediately

ring-divert

Controls whether ICON identifies the PARENTPARTYID and the PARENTLINKTYPE of the Ringing party in event flows in which EventRinging comes before EventDiverted or the call is routed to an external switch.

> **Tip**
>
> You can set this option in the **Annex** section either of the Switch or the DN configuration object, or both. If it is set to a valid value, the DN option overrides the value set for the Switch.

- Configured in: Switch Application, DN Application
- Default Value: `0`
- Valid Values: `0`, `1`
    - `0`—ICON preserves its former behavior; that is, ICON does not identify the PARENTPARTYID or the PARENTLINKTYPE in these event flows.
    - `1`—ICON correctly sets the value of the PARENTPARTYID and the PARENTLINKTYPE.
- Changes Take Effect: If set for the Switch, changes take effect after ICON is restarted; if set for the DN, changes take effect immediately.

> **Important**
>
> Interaction Concentrator does not support event flows in which EventRinging comes before EventDiverted for two-step transfer scenarios in which the transfer is completed before the call rings on the target DN. This is the case even if you set the `ring-divert` option value to 1.

sst-options

Specifies the TEvents that ICON uses to recognize a single-step transfer, in order to ensure the correct processing of scenarios involving a single-step transfer.

- Configured in: Switch Application

- Default value: 0

- Valid values:

    - 0—EventReleased, followed by a corresponding EventRinging or EventQueued. Arrivals of EventReleased, EventRinging, or EventQueued trigger the recognition logic.

    - 1—EventReleased only. Arrival of EventReleased with an additional cause attribute triggers the recognition logic.

- Changes take effect: After restart

> ## Important
> Set this value to 1 for:
>
> - SIP Server deployments with VoIP IVRs (GVP and third-party)
>
> - T-Server for Siemens HiPath 4000 CSTA III.

support-dn-type-5

Enables the processing of events that pertain to DNs of the Virtual Queue type that belong to this switch.

- Configured in: Switch Application
- Default value: 1
- Valid values:
    - 0—ICON does not process any Virtual Queue–related events for DNs that belong to this switch.
    - 1—ICON processes Virtual Queue–related events for DNs that belong to this switch.
- Changes take effect: Immediately

suppress-user-data

Specifies whether the switch instructs T-Server to propagate attached data only when the attached data changes. This optimizes ICON processing of attached data by reducing network traffic.

This option can be set at the level of the Switch or the ICON application. ICON automatically detects the Switch-level option setting. If the Switch-level option is set to the (default) value of 1 (unchanged attached data suppressed), T-Server TEvents are optimized for all ICON applications that connect to the T-Servers for that Switch. In this case, the Switch-level option setting overrides any ICON-level settings of 0 (unchanged attached data not suppressed). If the Switch-level option is set to 0, an application-level setting of 1 will override it.

- Configured in: ICON Application, `[callconcentrator]` Section; Switch Application, Annex tab, `[gts]` Section
- Default value: 1
- Valid values:
    - `0`—Unchanged attached user data is not suppressed.
    - `1`—Unchanged attached user data is suppressed.
- Changes take effect: After restart

switch-multi-links-enabled

Specifies whether this switch is working in load-balancing mode; that is, it is served by multiple Network T-Servers or IVR T-Servers. ICON uses this option to determine whether to enable connection to more than one Network T-Server or IVR T-Server serving this switch.

- Configured in: Switch Application

- Default value: 0

- Valid values:

    - 1—A network or IVR switch in load-balancing mode.

    - Any other integer—Not a network or IVR switch in load-balancing mode.

- Changes take effect: After restart

This option should be used only in a configuration in which Network T-Servers or IVR T-Servers are working in load-balancing mode; that is, when there is no duplication in notification events received in ICON via connections to these T-Servers. Currently, load balancing mode is supported only for Network T-Servers and IVR T-Servers.

third-party-queue-in-divert

Specifies how Interaction Concentrator should process multi-queue scenarios in which a call is distributed to multiple queues simultaneously, then it is distributed from one of these queues and cleared from the remaining queues. When the `third-party-queue-in-divert` option is set to 1, Interaction Concentrator takes into account AttributeThirdPartyQueue in EventDiverted when AttributeCallState has a value of 0 in order to process interactions in the same way as for redirect scenarios.

> ### Important
> Currently only T-Server for Avaya Communication Manager release 7.6 and higher supplies AttributeThirdPartyQueue. For all other T-Servers, Genesys recommends that you use the default value of the `third-party-queue-in-divert` option.

- Configured in: Switch Application
- Default value: 0
- Valid values:
    - 0—Interaction Concentrator does not check for the presence of AttributeThirdPartyQueue in EventDiverted.
    - 1—Interaction Concentrator checks for the presence of AttributeThirdPartyQueue in EventDiverted.
- Changes take effect: After Interaction Concentrator is restarted

> ### Important
> - Genesys Info Mart 7.x customers should use the default value for this option.
> - In multi-queue scenarios, distribution to external DNs is not supported.