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Stat Server User's Guide

Classifying DN Actions

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Classifying DN Actions

At the uppermost level, actions can be segmented into one of the following three groups:

- Regular DN actions (generated from TEvents that are spawned from either T-Server or SIP Server)
- Mediation DN actions (generated from TEvents that are spawned from either T-Server or SIP Server)
- Media-channel actions (exclusively generated from events that are spawned from an Interaction Server)

Within each group, actions can be subclassified further as having the following properties:

- *Durable or instantaneous*
- Related to an interaction or not related to an interaction

The CallRinging action, for example, can be classified as a durable, interaction-related, regular DN action.

Regular DN actions, generated on multimedia DNs, are subdivided further into *media-dependent* and *media-independent* actions. An action is media-dependent if the MediaType attribute is applicable to the action and media-independent otherwise. LoggedIn is media-independent while all call-related actions, like CallInbound, are media-dependent.

Media-dependent actions are either *media-unique* or *media-common*. An action is media-unique if only one action per supported media type can exist on a multimedia device and media-common otherwise. These terms apply only within the context of multimedia DNs and were introduced in Stat Server release 7.6.1 to illustrate the difference between actions generated on regular DNs and actions sharing the same name which Stat Server generates on multimedia DNs.

The following sections describe these classifications:

Uppermost Classification of DN Actions

Stat Server generates actions for the following high-level classifications of DNs.

- *Regular DNs* are DNs such as telephony DNs (Extension and ACD Position), Internet DNs (Email, VoIP, Video, Chat, and CoBrowse), and special types of telephony DNs (EAPort, VoiceMail, Cellular, CP, FAX, Data, Music, Mixed).
- *Multimedia DNs*, controlled by a SIP Server, enable more than one simultaneous interaction, of the same or differing media type, to occur at the same DN. This can be exemplified by an agent handling multiple chat sessions simultaneously. Stat Server recognizes a DN as a Multimedia DN if:
 - The DN's type is Extension (CFGExtension in Configuration Server).
 - The DN's switch is SIPSwitch or VoIPCMCPSwitch.
 - The value of the DN's [Tserver]**multimedia** configuration option value has been set to yes. (This option is defined under the **Options** tab in Genesys Administrator Extension).

Tip

Changing the value of the **multimedia** option in a DN's properties from yes to no, and vice versa, leads to a change in the DN's type from multimedia DN to regular DN, and vice versa. Any such reconfiguration *must* be performed while Stat Server is not running.

- *Mediation DNs* are DNs that regularly distribute interactions, such as ACD queues, routing points, virtual queues, virtual routing points, external routing points, and service numbers.

Media-channel actions are all sourced from the Genesys eServices solution, which follows an entirely different, non-DN-based interaction model.

The special agent group and place group actions, which occur only at the group level, reflect events from origination DNs. They are formally classified with regular DN actions, because all other agent or place group actions are propagated regular-DN actions, see [Propagation of DN Actions](#).

Durable Actions Versus Instantaneous Actions

Durable actions occur over time; they have a starting moment and an ending moment.

Status can only be based on durable actions.

Instantaneous actions occur at a single moment and are divided into two groups: retrospective and momentary:

- *Retrospective actions* are generally derived from durable actions and are determined by the termination of the corresponding durable actions. Thus, a durable action's total duration is also a retrospective action's total duration, but a retrospective action's occurrence is unknown until the durable action ends. For instance, the termination of the `CallOnHold` durable action can result in one of three retrospective actions: `CallRetrievedFromHold`, `TransferredFromHold`, or `CallAbandonedFromHold`. However, these three actions can occur only when the interaction is no longer on hold.
- The retrospective actions that do not derive from durable actions are the following actions:

Mediation DN actions:

- `CallTreatmentCompleted`—This action's duration is taken from the parameters of `EventTreatmentCompleted`.
- All actions reflecting events at mediation DNs receiving calls distributed to other mediation DNs. Refer to the `CallDistributedToQueue` actions.
- All actions reflecting events at regular DNs receiving calls distributed from the mediation DN (see [Retrospective, Interaction-Related Actions Reflecting Regular DNs](#)). These actions take their duration either from the preceding `CallWait` durable action or from a related regular DN durable action.

Media-Channel actions:

- `CoachingByRequestInitiated`

StagingArea actions:

- **InteractionCleared**—This action's duration is taken from the parameters of EventTakenFromQueue.
- **InteractionDeleted**—This action's duration is taken from the parameters of EventProcessingStopped.
- **InteractionDistributed**—This action's duration is taken from the parameters of EventTakenFromQueue.

Important

All actions specifically called out as *retrospective* are instantaneous actions.

- *Momentary actions* are generally not derived from durable actions, and their duration is always 0. An interaction-related durable action generally has a corresponding momentary action that marks the beginning of the durable action. For instance, the momentary CallHeld action marks the beginning of the CallOnHold durable action.

Interaction-Related Actions Versus Non-Interaction-Related Actions

Actions that reflect events arising from particular interactions (events that carry connection ID information from T-Server or interaction ID information from Interaction Server) are called *interaction-related actions*. Because Stat Server remembers the connection ID (or interaction ID) of the interaction, and because the connection ID (interaction ID) provides a criterion for distinguishing between such actions, more than one interaction-related action of the same kind can occur at the same time on the same DN.

Non-interaction-related actions are caused by events that do not arise from particular interactions. Only one non-interaction-related action can occur at any moment at a DN. Filtered and custom-formula statistics cannot be based on non-interaction-related actions.

Logical Clusters of Interaction-Related Actions

Almost every interaction-related durable action forms the core of a cluster of logically related actions. This cluster comprises the durable action itself, the momentary action that marks the starting point of the durable action, and one or more retrospective actions that carry information about the outcome of the durable action.

The interaction-related durable actions that do *not* form a cluster of logically related actions include:

- The two complementary call-type actions of CallInternal: CallInternalOriginated and CallInternalReceived.
- The two complementary call-type actions of CallConsult: CallConsultOriginated and CallConsultReceived.
- The AfterCallWork action.

The Table below lists many of the basic actions that make up clusters of logically related actions.

Each row in the Table comprises all the actions in a single cluster.

Logical Clusters of Interaction-Related Actions

| Durable Action | Initial Momentary Action | Terminal Retrospective Actions |
|--|--------------------------|---|
| Regular DN Actions | | |
| CallDialing | CallDialingStarted | CallDialed |
| | | CallAbandonedFromDialing |
| | | CallDialTransferred (only possible for consult calls) |
| | | CallDialConferenced (only possible for consult calls) |
| CallRinging | CallRingingStarted | CallAnswered (Regular DNs) |
| | | CallAbandonedFromRinging (Regular DNs) |
| | | CallRingingPartyChanged (Regular DNs) (only possible for consult calls) |
| | | CallForwarded (Regular DNs) |
| CallOnHold | CallHeld | CallRetrievedFromHold |
| | | CallAbandonedFromHold |
| | | TransferredFromHold |
| CallConsult | CallConsultStarted | CallPartyChanged |
| CallConsultOriginated | | |
| CallConsultReceived | | |
| CallInbound | CallInboundStarted | CallInboundCompleted |
| CallInternal | CallInternalStarted | CallInternalCompleted |
| CallOutbound | CallOutboundStarted | CallOutboundCompleted |
| CallUnknown | CallUnknownStarted | CallUnknownCompleted |
| Group Actions Reflecting Origination DNs | | |
| OrigDNCallWait | OrigDNCallEntered | OrigDNCallDistributed |
| | | OrigDNCallAbandoned |
| Mediation DN Actions | | |
| CallWait | CallEntered | CallDistributed |
| | | CallAbandoned |
| | | CallCleared |
| Media Actions | | |
| Delivering | DeliveringStarted | Accepted |
| | | Rejected |
| HandlingInbound | HandlingInboundStarted | StoppedInbound |
| HandlingInternal | HandlingInternalStarted | StoppedInternal |

| HandlingOutbound | HandlingOutboundStarted | StoppedOutbound |
|------------------|-------------------------|-----------------|
|------------------|-------------------------|-----------------|

For every cluster of logically related actions shown in the table above (except the Media actions), there are five clusters of interaction-type specific actions whose names are the same as those actions in the basic cluster, but with Unknown, Inbound, Consult, Internal, or Outbound appended to the end. The CallDialTransferred and CallDialConferenced actions are specific to consult calls, so they occur without name modification in the cluster based on CallDialingConsult, and have no counterpart in the clusters specific to other call-type actions. The same is true for CallRingingPartyChanged. Each of the clusters corresponding to the CallRingingConsult, CallWaitConsult, and OrigDNCallWaitConsult durable actions has an additional terminating retrospective action (CallRingingPartyChanged, CallWaitPartyChanged, and OrigDNCallWaitPartyChanged, respectively). These actions account for the possible termination of a consult call during two-step transfers. CallDialTransferred can occur only for a consult call.

Normally, at the end of a cluster's durable action, the durable action ends (and thus can be used for historical statistics), and a retrospective action that has the same duration occurs. However, when an interaction-related durable action ends because of a lost connection to T-Server or between T-Server and the switch (in either case, the NotMonitored action starts), none of the terminating retrospective actions of the same cluster occurs.