Stat Server User's Guide

CurrentState Categories

4/23/2025

CurrentState Categories

Contents

Current state statistical categories do not return numeric values, but rather return a structure containing current action and status information for agents, places, and groups against all Genesys-defined media types. There are three current state statistical categories:

- `CurrentState`
- `CurrentStateReasons`
- `CurrentTargetState`

> ## Tip
>
> The structure of current-state categories might be of more interest to developers than to other types of end users. For this reason, partial structure definitions are provided to help illustrate functionality.
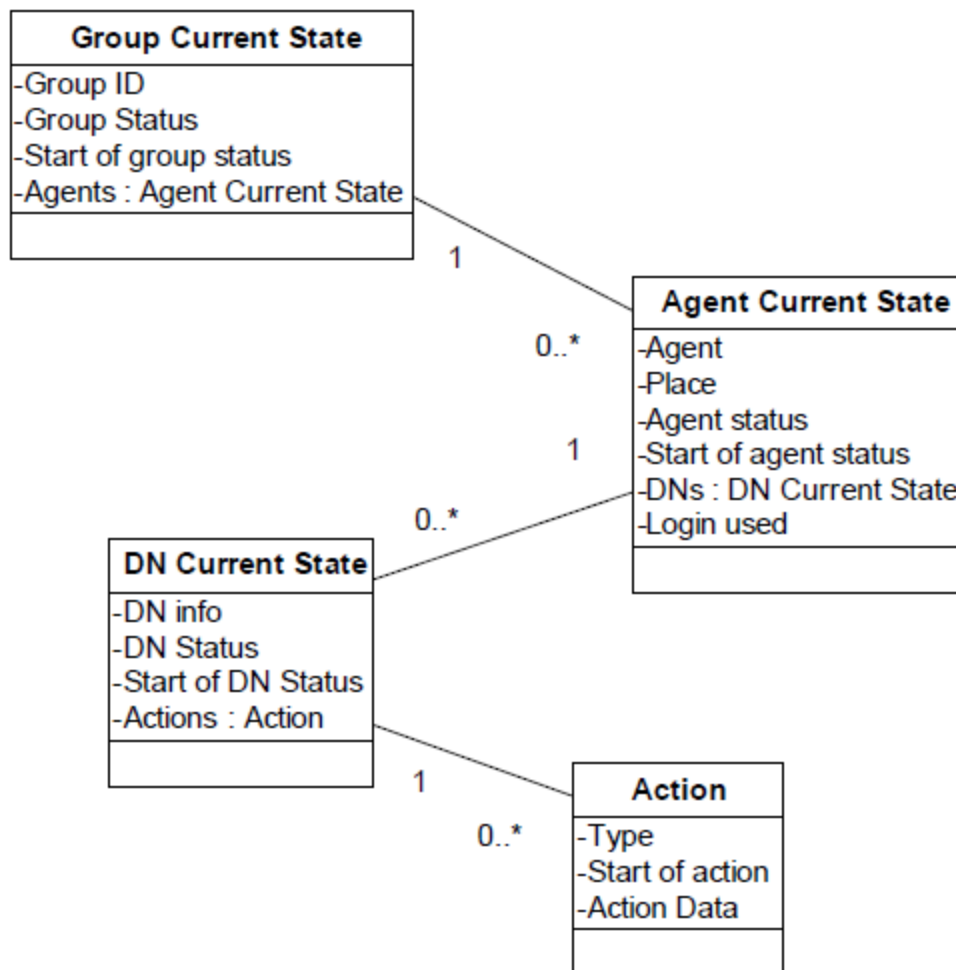
CurrentState

The format of the returned structure for the `CurrentState` statistical category depends on the object and subject of the statistic and can be represented as a tree. See the *CurrentState* figure below.

The root of the tree always corresponds to the stated object of the statistic, all nodes correspond to underlying objects in the DN Action Propagation Hierarchy, and the terminal nodes are always at the level of the stated subject of the statistic.

The Object statistical parameter determines whether Group `CurrentState` or Agent `CurrentState` is sent. Place-Group `CurrentState` has the same format as Agent-Group `CurrentState`. Place `CurrentState` has the same format as Agent `CurrentState`.

The Subject statistical parameter determines the depth of the tree:

- if `Subject = DNAction`, the tree is expanded down to DN actions;
- if `Subject = DNStatus`, the tree is expanded down to DN statuses; etc.

```
┌─────────────────────────────────┐
│       Group Current State       │
├─────────────────────────────────┤
│ -Group ID                       │
│ -Group Status                   │
│ -Start of group status          │
│ -Agents : Agent Current State   │
├─────────────────────────────────┤
│                                 │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│       Agent Current State       │
├─────────────────────────────────┤
│ -Agent                          │
│ -Place                          │
│ -Agent status                   │
│ -Start of agent status          │
│ -DNs : DN Current State         │
│ -Login used                     │
├─────────────────────────────────┤
│                                 │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│        DN Current State         │
├─────────────────────────────────┤
│ -DN info                        │
│ -DN Status                      │
│ -Start of DN Status             │
│ -Actions : Action               │
├─────────────────────────────────┤
│                                 │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│            Action               │
├─────────────────────────────────┤
│ -Type                           │
│ -Start of action                │
│ -Action Data                    │
├─────────────────────────────────┤
│                                 │
└─────────────────────────────────┘
```

CurrentState

Starting with release 8.5.109, Stat Server maps the content of the `attribute_reason_desc` from Interaction Server events to the value of the `ReasonValue` key in a `UserData` key-value list with the statistical parameter `Subject` defined as `DNAction` or `Action`.

CurrentStateReasons

Starting with release 6.5, Stat Server provides the `CurrentStateReasons` category to support the reasons that agents place themselves in certain agent statuses (such as `WaitForNextCall`, `NotReadyForNextCall`, and `AfterCallWork`). Reasons can change within the same agent status. If it is likely that the agents within your contact center will change the reason they entered a particular agent status within that same agent status, and if you want Stat Server to measure such changes, consider setting the `ReasonStartOverridesStatusStart` stat type option (described in the Stat Type Configuration Options table) to yes to change the timestamp for the `tmStart` field. This statistical category applies only to stat types that have `Agent` and/or `GroupAgents` designated as their objects.

In addition to providing current status information for agents and agent groups, this statistical category also can store reasons for non-interaction-related statuses in key-value list format, if the underlying T-Server supports reasons. For some agent statuses (Ready, NotReady, AfterCallWork) in

which DNs have the same such status, Stat Server collects reasons from the Reason field of the corresponding TEvent and/or the Extension field of the TEvent's ReasonCode key.

Figure below illustrates the structures that support this statistical category.

The Agent CurrentStateReasons

> **Tip**
>
> - Not all T-Servers support reasons. Please refer to the appropriate T-Server manual for more details.
> - The Subject has to be set to DNAction for monitoring reasons changes.

Starting with release 8.5.109, Stat Server maps the content of the attribute_reason_desc from Interaction Server events to the value of the ReasonValue key in a Reasons key-value list.

CurrentTargetState

The CurrentTargetState statistical category is reported using the following two structures that include multimedia-capacity information about agent, place, agent group, and place group states:

- Snapshot
- Delta

Stat Server returns the Snapshot structure as its initial response when a client requests a statistic using the CurrentTargetState category. In general, it includes the array of Target structures, where each structure corresponds to a single routing Target (Agent or Place) If Object is Agent or Place, the array contains a single Target structure. Stat Server sends subsequent notifications (Target added/changed/removed—the first two are sent only if a statistic is requested for agent group or place group) using the Delta structure, which contains the (changed) Target and the list of associated statistical requests.

> ### Important
> The `CurrentTargetState` statistical category is only available for the `OpenStat` request with the `ChangesBasedNotification` mode. The `GetStat` or the `PeekStat` request is not applicable to that category.

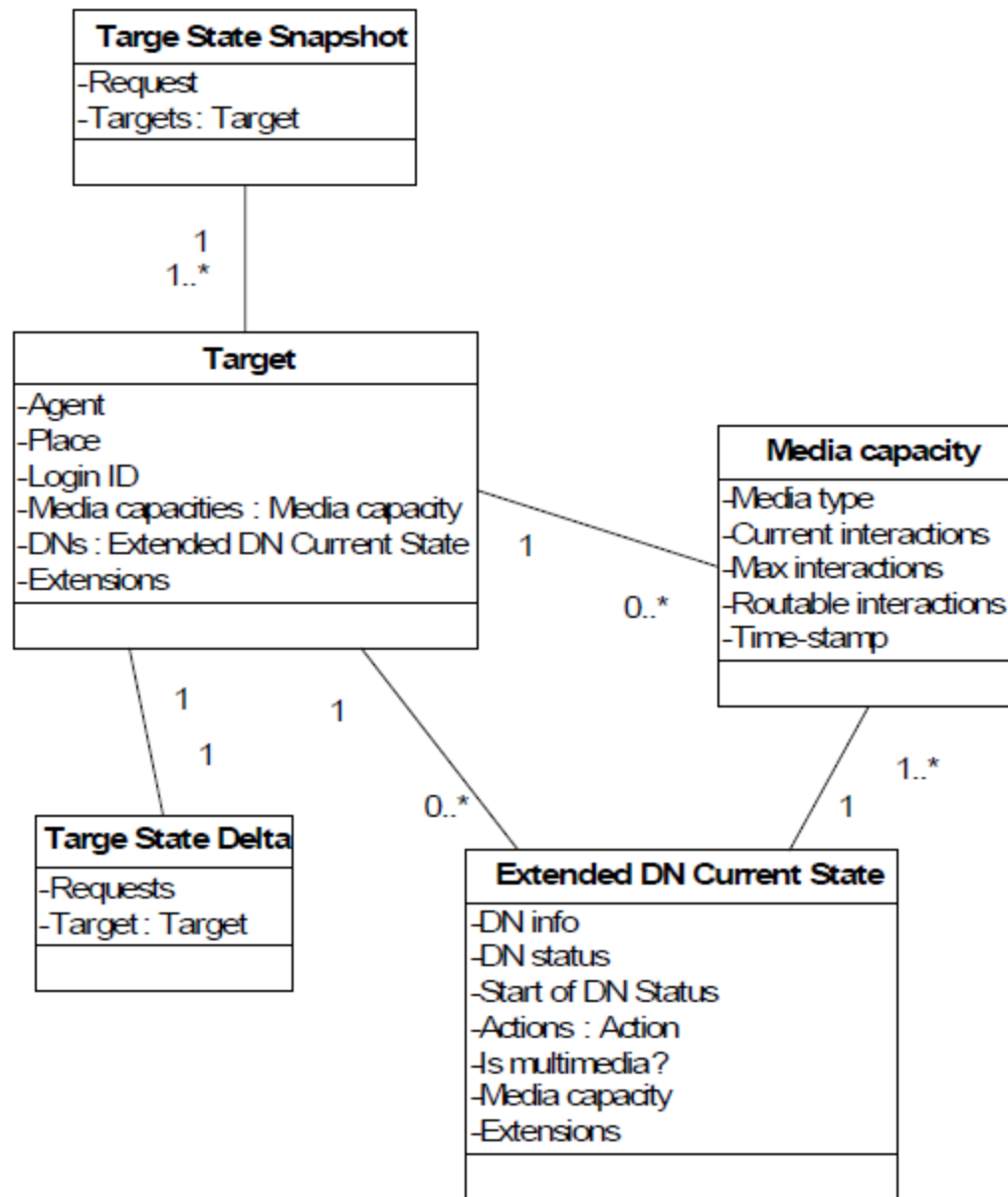Consider the following situation:

- `Agent` is associated with place (via login into DN belonging to that place)
- `Agent` belongs to an agent group(s)
- `Place` belongs to a place group(s)
- CurrentTargetState statistic is requested for the `Agent`, `Place`, agent-group(s), place(groups)

For 8.1.0⁻ release, the single ("atomic") response is sent for all (associated) requests above.

For 8.1.2⁺ release, two responses are sent:

- one for the `Place` and place groups
- another for the `Agent` and agent groups

Figure below illustrates `CurrentTargetState`.

The CurrentTargetState

The method of propagation of agent/place/group state information using this statistical category is somewhat different from that used by the CurrentState category. Instead of sending notifications on a statistic-by-statistic basis, Stat Server first determines all of the statistics affected by the change in agent/place /group state and then sends one notification for all of them. In this manner, client decisions—routing strategies, for example—can equally distribute interactions among available resources. For this reason, the TimeBased notification mode does not apply to this category.