

# Configure Session Inactivity Cleanup Mechanism

Ericsson Service-Aware Policy Controller

OPERATING INSTRUCTION

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# 1 Session Inactivity Cleanup Mechanism Overview

This Operating Instruction gives the details about how to configure the Session Inactivity Cleanup mechanism. This periodical mechanism is in charge of deleting all the inactive Gx sessions. A Gx session is considered inactive or obsolete when no CCR-I or CCR-U is received or RAR sent during a configurable period of time.

There is a set of five parameters which allows setting up the Session Inactivity Cleanup mechanism. The SAPC uses COM to configure them, offering a Managed Object Model (MOM). Every parameter can be modified and for an easier use default values are set.





## 2 Session Inactivity Cleanup Mechanism Prerequisites

This section describes the prerequisites, which must be fulfilled before using the feature. Before configuring the SAPC in an operational network, assure that:

- CBA Components are installed.
- The SAPC product software is installed.
- To have a detailed understanding of the function.
- An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.
- Read [System Administrator Guide](#) to connect to the CLI management agent. The examples in this Operating Instruction use COM cliss.







## 3 Session Inactivity Cleanup Mechanism Procedure

### 3.1 Enabling/disabling the mechanism

The Session Inactivity Cleanup mechanism is a feature which has the possibility of being enabled or disabled through the parameter **enabledCleanup**. The mechanism is enabled by default. To enable/disable this function, do the following:

1. Navigate to the **SessionInactivityConfig** Managed Object (MO):

```
>dn ManagedElement=1,PolicyControlFunction=1,AppConfig=1,SessionInactivityConfig=1
```

2. Modify the parameter:

- a. Enter in configuration mode:

```
(SessionInactivityConfig=1)>configure
```

- b. Assign true for activating or false otherwise. In this example the cleanup mechanism is disabled:

```
(config-SessionInactivityConfig=1)>enabledCleanup=false
```

- c. Save changes:

```
(config-SessionInactivityConfig=1)>commit
```

The Session Inactivity Cleanup mechanism receives a notification of change of this parameter to react immediately to the new value. After enabling this function, the mechanism will start at the time indicated by the **cleanupStartTime** parameter. In case of disabling this function, no further executions of the Session Inactivity Cleanup mechanism are scheduled and ongoing executions are immediately stopped.

### 3.2 Scheduling the mechanism

The Session Inactivity Cleanup mechanism starts up at the time indicated by the **cleanupStartTime** parameter. Any change in this parameter only takes effect if the feature is enabled. Its syntax is hh:mm:ss, where hh is the hour in 24-hour clock convention, mm the minutes and ss the seconds. Its default value is 00:30:00. To change the time when this function starts, do the following:

1. Navigate to the **SessionInactivityConfig** Managed Object (MO):



```
>dn ManagedElement=1,PolicyControlFunction=1,AppConfig=1,SessionInactivityConfig=1
```

2. Modify the parameter:

- a. Enter in configuration mode:

```
(SessionInactivityConfig=1)>configure
```

- b. Assign the time value using the formerly explained format between quotes. In this example the triggering time will be 4:30AM:

```
(config-SessionInactivityConfig=1)>cleanupStartTime="04:30:00"
```

- c. Save changes:

```
(config-SessionInactivityConfig=1)>commit
```

When the start time is updated, the next Session Inactivity Cleanup mechanism will be triggered at that time, even if there is a cleanup already in progress.

### 3.3 Setting up the session inactivity time

The SAPC considers a Gx session as inactive after not receiving/sending any message in a period of time. This period of time is configurable through the **inactivityPeriod** parameter (by default is 36, expressed in hours). To change this value do the following:

1. Navigate to the **SessionInactivityConfig** Managed Object (MO):

```
>dn ManagedElement=1,PolicyControlFunction=1,AppConfig=1,SessionInactivityConfig=1
```

2. Modify the parameter:

- a. Enter in configuration mode:

```
(SessionInactivityConfig=1)>configure
```

- b. Assign a positive integer. In this example the parameter is set to 15 hours:

```
(config-SessionInactivityConfig=1)>inactivityPeriod=15
```

- c. Save changes. They won't take effect until the next execution:

```
(config-SessionInactivityConfig=1)>commit
```



## 3.4 Setting up the cleanup duration

The **cleanupDuration** parameter establishes the boundary in time of the Session Inactivity Cleanup mechanism to restrict the execution time of it. It is measured in minutes with a default value of 180. To change the value do the following:

1. Navigate to the **SessionInactivityConfig** Managed Object (MO):

```
>dn ManagedElement=1,PolicyControlFunction=1,AppConfig=1,SessionInactivityConfig=1
```

2. Modify the parameter:

- a. Enter configuration mode:

```
(SessionInactivityConfig=1)>configure
```

- b. Assign a positive integer. In this example the cleanup will not last more than 300 minutes:

```
(config-SessionInactivityConfig=1)>cleanupDuration=300
```

- c. Save changes. They won't take effect until the next execution:

```
(config-SessionInactivityConfig=1)>commit
```

## 3.5 Setting up cleaning mode

The **checkForSessionAlive** parameter allows to configure the way the SAPC performs the cleanup:

- When it is set to true, the SAPC sends an RAR message to the PCEF so the PCEF can answer if the session is still valid or not. In case of receiving a `DIAMETER_SESSION_UNKNOWN` error code in the RAA, the SAPC terminates the session and any attached Rx, Sy or Sd session.
- When it is set to false, the SAPC immediately terminates the session and any attached Rx, Sy or Sd session.

By default the SAPC is able to verify if the Gx session is still alive in the PCEF before removing it, but this behavior can be disabled so the SAPC does not send RAR messages. To change the value of this parameter, do the following:

1. Navigate to the **SessionInactivityConfig** Managed Object (MO):

```
>dn ManagedElement=1,PolicyControlFunction=1,AppConfig=1,SessionInactivityConfig=1
```

2. Modify the parameter:

- a. Enter in configuration mode:

```
(SessionInactivityConfig=1)>configure
```



- b. Assign `true` for activating this feature or `false` otherwise. In this example it will be disabled:

```
(config-SessionInactivityConfig=1)>checkForSessionAlive  
=false
```

- c. Save changes. They won't take effect until the next execution:

```
(config-SessionInactivityConfig=1)>commit
```

## 3.6 Showing the current configuration

This section describes how to show the current Session Inactivity Cleanup mechanism configuration.

1. Navigate to the **SessionInactivityConfig** Managed Object (MO):

```
>dn ManagedElement=1,PolicyControlFunction=1,AppConfig=1,SessionInactivityConfig=1
```

2. The following examples show how to display each of the configuration parameters. To find out the meaning of each of them refer to the former sections.

- (SessionInactivityConfig=1)>**show enabledCleanup**  
  
enabledCleanup=true
- (SessionInactivityConfig=1)>**show cleanupStartTime**  
  
cleanupStartTime="00:30:00"
- (SessionInactivityConfig=1)>**show inactivityPeriod**  
  
inactivityPeriod=36
- (SessionInactivityConfig=1)>**show cleanupDuration**  
  
cleanupDuration=180
- (SessionInactivityConfig=1)>**show checkForSessionAlive**  
  
checkForSessionAlive=true