

CSCF Credit Control Answers Indicate End User Service Denied

Call Session Control Function

OPERATING INSTRUCTIONS

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1 Introduction

This instruction concerns alarm handling.

1.1 Alarm Description

The threshold alarm `CSCF Credit Control Answers Indicate End User Service Denied` is issued when the server denies the service request because of service restrictions.

The alarm is associated to the Performance Management counter `cscfCCAEndUserServiceDenied`.

The alarm is raised when the number of received Diameter Credit Control Answer messages, including the error code `DIAMETER_END_USER_SERVICE_DENIED`, has reached or exceeded its configured `thresholdHigh` within the time period configured by `thresholdRateOfVariation` and `granularityPeriod`.

The alarm is automatically ceased when it reaches or goes below the configured `thresholdLow` value.

The default values related to this alarm are: `thresholdRateOfVariation=PER_GP`, `granularityPeriod=FIVE_MIN`, `thresholdHigh=2`, and `thresholdLow=0`. This means that when the counter value is 2 or higher, the alarm is raised when the granularity period is ended. The alarm is ceased when the counter `cscfCCAEndUserServiceDenied` has reached a value of 0 at the end of a granularity period.

Note: The thresholds for raising and ceasing this alarm are configurable. The default distinguished name for the thresholds is: `ManagedElement=<node_name>`, `SystemFunctions=1`, `Pm=1`, `PmJob=CscfChargingStatisticsThreshold`, `MeasurementReader=cscfCCAEndUserServiceDeniedMeasReader`, `PmThresholdMonitoring=cscfCCAEndUserServiceDenied`.

It is not possible to change threshold values once they have been set. To change a threshold, first the `PmThresholdMonitoring` instance must be deleted and recreated with required `thresholdHigh` and `thresholdLow`.

For more information, refer to *Performance Management*.

The possible alarm causes and the corresponding fault reasons, fault locations, and impacts are described in Table 1.

Table 1 Alarm Causes

Alarm Cause	Description	Fault Reason	Fault Location	Impact
The PM counter <code>cscfCCAEndUserServiceDenied</code> has reached or exceeded its configured upper threshold value.	The number of Credit Control Answers (CCA) with a transient failure where the server denies the service request because of service restrictions during a granularity period have reached or exceeded the configured threshold.	Charging server denies the service request. This can be because of faulty subscriber configuration.	The subscriber provisioning or configuration is not correct.	Sessions receiving this error code from the charging server is terminated.

Note: An alarm can appear as a result of maintenance activity.

The alarm attributes are listed and explained in Table 2.

Table 2 Alarm Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	6684683
Managed Object Class	MeasurementReader
Managed Object Instance	ManagedElement=<node_name>,SystemFunctions=1, Pm=1, PmJob=CscfChargingStatisticsThreshold, MeasurementReader=cscfCCAEndUserServiceDeniedMeasReader
Specific Problem	CSCF Credit Control Answers Indicate End User Service Denied
Event Type	communication (2)
Probable Cause	x733ThresholdCrossed (351)



Attribute Name	Attribute Value
Additional Text	cscfCCAEndUserServiceDenied, the credit-control server denies the request due to service restrictions
Perceived Severity	major (4)

1.2 Prerequisites

This section provides information on the documents, tools, and conditions that apply to the procedure.

1.2.1 Documents

This instruction references the following documents:

- *Performance Management*
- *Managed Object Model (MOM)*

1.2.2 Tools

No tools are required.

1.2.3 Conditions

No conditions.





2 Procedure

Note: If the reason for the alarm has disappeared after the granularity period, the alarm automatically ceases.

Do the following:

1. Analyze why the credit-control server denies the user service request because of service restrictions.
2. If the cause is that the alarm threshold is set too low, then adjust the alarm threshold.
3. Confirm that the alarm has ceased. If the alarm remains, consult the next level of maintenance support. Further actions are outside the scope of this instruction.
4. Job is completed.