



Traffic Management Mechanism Document

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1. Document Control

Revision history

Revision date	Summary of changes	Version number
06/05/2020	First version published following the implementation of SECMP0062	1.0
05/03/2024	Alert 0x8F75 removed from the Alert Storm Protection Exclusion List	3.0
17/06/2024	Added SECMP0028, Southbound Prioritisation" information	4.1

2. Purpose of this document

This document has been prepared in accordance with SEC Appendix AB 'Service Request Processing Document' Section 17.10 where the Alert Management Mechanism implemented by the DCC has its mechanism parameters and exempted Alert Codes clearly defined, and sections 6.6 and 6.7 where the DCC Southbound Prioritisation Mechanism implemented by the DCC has its mechanism parameters clearly defined.

3. Parameter Values for the Alert Management Mechanism

There are eleven parameters that control the Alert Management Mechanism. Each parameter can be configured.

All the parameters are used in accordance with SEC Appendix AB Sections 17.8 and 17.9. These are global settings and will apply equally to all Devices and Alerts, unless that Alert Code is on the Exempted Alert Code list below.

Parameter	Description	Value
T	Rolling Window (Time Period) for Alert Anomaly Detection	1440 minutes
M	Amber Threshold for Alert Anomaly Detection	15
A	Red Threshold for Alert Anomaly Detection	20

These are the Existing Alert counting parameters. With these settings, a Device generating more than 20 Alerts in 1440 minutes (1 day) will invoke Alert Code specific counting.

Parameter	Description	Value
R	Alert Code Specific Rolling Window (Time Period)	1440 minutes
B	Alert Code Specific Threshold	20

These parameters are Alert Code specific. A Device generating more than 20 Alerts with a specific Alert Code in 1440 minutes (1 day) will invoke Alert Storm Protection for that Alert Code on that Device.

Parameter	Description	Value
N	Alert Storm Protection Discarded Alert Limit	500
D	Alert Storm Protection Maximum Time Limit	1440 minutes
P	Alert Storm Protection Incident Deadband Period	1440 minutes

With the above parameters and configuration, under Alert Storm Protection only 1 in 500 Alerts will be delivered to the User. If the 500 limit is not reached within the 1440 minutes (24 hour) time period, then

one Alert will be delivered to the User at this point. A new Incident will not be created unless the Alert count has been below the threshold for a continuous 24 hour period.

Parameter	Description	Value
MIC	Amber Threshold Incident Creation	Off
AIC	Red Threshold Incident Creation	Off
PIC	Alert Storm Protection Incident Creation	Off

The above parameters control incident creation and can be turned either on or off.

3.1. Alert Storm Protection Exclusion List

The following Alert Codes are to be exempt from the global settings applied to all Alerts by the Alert Management Mechanism.

Exempted Alert Codes and Description
0x8F78 Unauthorised Physical Access – Other
0x8F77 Unauthorised Physical Access - Second Terminal Cover Remove
0x8F76 Unauthorised Physical Access - Terminal Cover Removed
0x8F74 Unauthorised Physical Access - Meter Cover Removed
0x8F73 Unauthorised Physical Access - Battery Cover Removed
0x8F3F Unauthorised Physical Access - Tamper Detect
0x8F1F Low Battery Capacity
0x8F1D GSME Power Supply Loss
0x81C0 Supply Disconnect Failure
AD1 Power Outage
0x8F36 Power Restore
0x8F35 Power Restore

4. Southbound Prioritisation Mechanism

When a DCC User submits a new SRV to the DCC (Southbound traffic), the SRV will enter a 'motorway' which will act as a queue for requests. Whilst in this queue, all On Demand SRVs will be processed ahead of Scheduled SRVs, and specific SRVs will be assigned to a priority Level for processing in a particular order. SRVs in Priority Band1 will be processed ahead of other On Demand SRVs. Southbound messages will be prioritised for onward transmission to both SMETS2 and SMETS1 Communications Service Providers (CSPs) through the CSP WAN and S1SP Gateways respectively. This will also include the Communications Hubs and Networks 4G Service Provider.

The list following shows the configurable priority levels assigned to Southbound messages, with the Mode of Operation rule as defined in the following section.

It should be noted that the Priority bands and contents for Northbound Prioritisation and Southbound Prioritisation are maintained separate and independent from each other.

4.1. Southbound Prioritisation Mechanism Priority Levels

The following priority level is used in accordance with SEC Appendix AB Sections 6.6 and 6.7: Service Request Priorities.

The below table outlines Service Requests and their assigned priorities within the Southbound Prioritisation Mechanism.

Service Request Name	Service Reference	Service Reference Variant	Priority Level
Top Up Device	2.2	2.2	1

4.2. Southbound Prioritisation Mechanism Mode of Operation Priority Levels

All On Demand SRVs will be processed ahead of Scheduled SRVs.