Data Communications Company

Report Guide: ADT011
Panel Monthly Traffic Management Report

Document Control

Revision History

Revision Date	Summary of Changes	Changes Marked	Version Number
26/06/2020	Published		V1.0

Table of Contents

1 The Guide Explained 4

1.1 Who is it for? 4

1.2 Why do you need it? 4

1.3 How to use it? 4

2 About ADT011 Panel Monthly Traffic Management Report 5

2.1 Report Format 5

2.2 Report Distribution 5

2.3 Data Classification 6

2.4 Business Terms 6

3 Report Content 7

3.1 Control Sheet 7

3.2 Panel Dashboard 7

3.2.1 Headline KPIs Table 7

3.2.2 Suppressed Alerts vs Alerts Not Suppressed During Storm 8

3.2.3 Suppressed Alerts vs Alerts Not Suppressed During Storm By Alert 8

3.2.4 Duration of Alert Storm 8

3.2.5 Occurrence of Alert Storm Instances Across Day 8

3.2.6 Suppressed Alerts vs Alerts Not Suppressed During Storm By Device Type 8

3.2.7 Volume of Devices and Responsible Parties with Alert Storms 9

3.2.8 Percentage of Alert Storms by Target SEC Party 9

3.2.9 Percentage of Alert Storms by Responsible Supplier 9

3.3 Storm by Device Type 9

3.4 Storm By Responsible Supplier 10

3.5 Responsible Supplier Summary 11

3.6 Alert Storm Instances 11

3.7 Alert Storm Parameters 13

4 Appendix 1 - SEC Role Codes 14

1 The Guide Explained

1.1 Who is it for?

This guide is for the SEC Panel.

1.2 Why do you need it?

The guide describes the scope and functionality of the ADT011 report distributed to the SEC Panel.

1.3 How to use it?

This guide is designed to provide a summary of the report for those that may not be in receipt of the report or to provide additional context whilst reading the report.

2 About ADT011 Panel Monthly Traffic Management Report

SECMOD 62 (or SECMP0062) introduced an Alert Storm Protection mechanism into the DSP solution.

Smart Metering Devices can send alert messages to Service Users. While this is normally at a low or even infrequent rate, experience has shown that conditions can arise where a device starts to send one alert code at a high rate for an extended period. This consumes resource within the DSP and results in Users receiving a large volume of what are effectively duplicated alerts – this is what is being referred to as an Alert Storm in this context.

Alert Storm Protection will identify these occurrences by counting the number of each alert code received from a device within a given time window. If the number exceeds a threshold then an overload condition is raised, and the protection mechanism begins forwarding only 1 in N of the alerts (of the same alert code) to the User.

While the overload condition exists, any alert received (of that Device/Alert combination) is logged, together with a record of whether it was forwarded or dropped.

The SECMOD Working Group requested (in Ref. [1]) in Business Requirement # 6 that DCC report upon the actions of the protection mechanism.

ADT011 has been created to satisfy that requirement.

Attribute	Description
Catalogue Title	Panel Monthly Traffic Management Report
Catalogue Reference	ADT011
Report File Name	<ReportPeriod> Panel Monthly Traffic Management Report
Single Report or Multiple Report Pack	Single
Description	Extract of Alert Storm instances and analysis of KPIs as detailed within this document.
Obligation Reference(s)	SECMOD 62
Span of Reports Produced	1 report to be produced
Orientation	N/A
Self Service Enabled	No

2.1 Report Format

The report is in protected excel format.

2.2 Report Distribution

Report is distributed via the appropriate secured DCC SharePoint folder.

2.3 Data Classification

The report is classified as DCC Controlled unless otherwise stated in the individual instance of the report.

2.4 Business Terms

The list of Business terms used within the guide.

Business Term	Definition
Alert Code	DUIS Alert Code
CPL	Central Product List as published on SEC website
Device	From SEC means one of the following individual devices: (a) an Electricity Smart Meter; (b) a Gas Smart Meter; (c) a Communications Hub Function; (d) a Gas Proxy Function; (e) a Pre-Payment Interface Device; (f) a HAN Connected Auxiliary Load Control Switch; and (g) any Type 2 Device.
DSP	The Data Service Provider for DCC
Responsible Supplier	From SEC means, in respect of a Smart Metering System (or any Device forming, or intended to form, part of a Smart Metering System) which relates to: (a) an MPAN, the Import Supplier for that Smart Metering System; and/or (b) an MPRN, the Gas Supplier for that Smart Metering System.
Target SEC Party	SEC Party that is the target recipient of Alerts generated by a Device

3 Report Content

3.1 Control Sheet

There shall be a Control Sheet at the front of the report.

Business Term	Definition	Values
Report Title	Panel Monthly Traffic Management Report	N/A
Catalogue ID	ADT011	N/A
Report Refresh Date	Date report was Published to SEC Panel	DD/MM/YYY
Measurement Period	Reporting Period the data within the report covers. This will be a calendar month	MMM YYY
DCC Security Classification	DCC Controlled	N/A
Summary	Brief description of the report and the data within	N/A

3.2 Panel Dashboard

Panel Dashboard shows a table of headline KPIs and graphical representations of others.

3.2.1 Headline KPIs Table

Column	Description	Values
Device Type	Device Type of the Device in the Alert Storm data	String (CHF, GPF, GSME, ESME, PPMID)
No. Of Alert Storm Events	The volume of unique Alerts Storms for the Device Type	Integer
Number of Devices Triggering Events	The volume of unique Devices of that Device Type that have triggered Alert Storms	Integer

Number of Responsible Suppliers Impacted	The volume of Responsible Suppliers whose Devices of that Device Type that have triggered Alert Storms	Integer
Volume of Suppressed Alerts	The volume of Alerts that have been suppressed for the Device Type during the reporting Period based on the DSP classification for Discarded being (T)rue	Integer
Volume of Alerts Not Suppressed During Event	The volume of Alerts that have been allowed through that otherwise would have been suppressed for the Device Type during the reporting Period based on the DSP classification for Discarded being (F)alse	Integer

3.2.2 Suppressed Alerts vs Alerts Not Suppressed During Storm

Pie chart depicting the Percentage of Alerts suppressed during the alert storms versus those that were not suppressed.

DSP Discarded Total for T versus Discarded Total for F.

3.2.3 Suppressed Alerts vs Alerts Not Suppressed During Storm By Alert

Combined Bar Chart and Line Graph depicting the volume of Alerts suppressed during the alert storms versus those that were not suppressed by Alert Code.

DSP Discarded Total for T by Alert Code – Bar Chart

Versus

Discarded Total for F by Alert Code – Line Graph

It should be noted that due to the high volumes of Alerts discarded for specific Alert Codes certain bars will go beyond the scale of the graph, the details of these are noted below the graph.

3.2.4 Duration of Alert Storm

Bar Chart depicting the volume of Alert Storms by time lapse between the first Alert Suppression and the Last Alert Suppression for the Alert Storms.

Intervals are reported in minutes with scale of 1 Minute to greater than 30 Days

3.2.5 Occurrence of Alert Storm Instances Across Day

Bar Chart depicting the volume of Alert Storms by the hour in the day first Alert Suppression occurred.

3.2.6 Suppressed Alerts vs Alerts Not Suppressed During Storm By Device Type

Combined Bar Chart and Line Graph depicting the volume of Alerts suppressed during the alert storms versus those that were not suppressed by Device Type.

DSP Discarded Total for T by Device Type – Bar Chart

Versus

Discarded Total for F by Device Type – Line Graph

3.2.7 Volume of Devices and Responsible Parties with Alert Storms

Bar Chart depicting the volume of unique Devices and unique Responsible Parties by Device Type that triggered Alert Storms.

The Responsible Party count is in the foreground and the Device Type count to the rear.

3.2.8 Percentage of Alert Storms by Target SEC Party

Pie Chart depicting the Percentage Volume of the Alert Storms where the SEC Party was the Target Recipient for the Alerts.

Pie Chart shows the ten SEC Parties with the highest percentage volume and a summary percentage value for the remaining SEC Parties.

3.2.9 Percentage of Alert Storms by Responsible Supplier

Pie Chart depicting the Percentage Volume of the Alert Storms where the SEC Party was the Responsible Supplier for the Device triggering the Alert Storm.

Pie Chart shows the ten SEC Parties with the highest percentage volume and a summary percentage value for the remaining SEC Parties.

3.3 Storm by Device Type

A Data Table detailing the Alert Storm and Alert volumes by Device Type, Alert Code, Meter Manufacturer, Device Model and Active Firmware combination.

Data within the table:

Column	Description	Values
Device Type	Device Type of the Device in the Alert Storm data	String (CHF, GPF, GSME, ESME, PPMID)
Alert Code	DUIS Alert Code	Text
Alert Description	DUIS Alert Code Description	Text
Manufacturer	Device Manufacturer Name	Text
Model	Device Model Identifier as per CPL	Text
Firmware	Device current active Firmware	Text

Volume of Alert Storms	The volume of unique Alerts Storms for the Device/Alert/Manufacturer/Model/Firmware Combination	Integer
Volume of Alerts Supressed	The volume of unique Alerts suppressed for the reporting Period based on the DSP classification for Discarded being (T)rue for the Device/Alert/Manufacturer/Model/Firmware Combination	Integer
Volume of Alerts Not Suppressed During Alert Storm	The volume of unique Alerts not suppressed for the reporting Period based on the DSP classification for Discarded being (F)alse for the Device/Alert/Manufacturer/Model/Firmware Combination	Integer

3.4 Storm By Responsible Supplier

A Data Table detailing the Alert Storm and Alert volumes by Responsible Supplier and Alert Code combination

Data within the table:

Column	Description	Values
Responsible Supplier ID	The SEC Party ID for the Responsible Supplier	Text
Responsible Supplier Name	The Name of the Responsible Supplier	Text
Alert Code	DUIS Alert Code	Text
Alert Description	DUIS Alert Code Description	Text
Volume of Alert Storms	The volume of unique Alerts Storms for the Responsible Supplier/Alert Combination	Integer
Volume of Alerts Supressed	The volume of unique Alerts suppressed for the reporting Period based on the DSP classification for Discarded being (T)rue for the Responsible Supplier/Alert Combination	Integer
Volume of Alerts Not Suppressed During Alert Storm	The volume of unique Alerts not suppressed for the reporting Period based on the DSP classification for Discarded being (F)alse for Responsible Supplier/Alert Combination	Integer

Max Duration In Minutes	The time in minutes that the longest running Alert Storm lasted for the combination	Integer

3.5 Responsible Supplier Summary

A data table with summary volumes by Responsible Suppler

Column	Description	Values
Responsible Supplier ID	The SEC Party ID for the Responsible Supplier	Text
Responsible Supplier Name	The Name of the Responsible Supplier	Text
Volume of Alert Storms	The volume of unique Alerts Storms for the Responsible Supplier	Integer
Volume of Alerts Supressed	The volume of unique Alerts suppressed for the reporting Period based on the DSP classification for Discarded being (T)rue for the Responsible Supplier	Integer
Volume of Alerts Not Suppressed During Alert Storm	The volume of unique Alerts not suppressed for the reporting Period based on the DSP classification for Discarded being (F)alse for Responsible Supplier	Integer
Max Duration In Minutes	The time in minutes that the longest running Alert Storm lasted for the Responsible Supplier	Integer

3.6 Alert Storm Instances

A Data Table detailing the individual Alert Storm instances for the Reporting Period.

Data within the table:

Column	Description	Values
Alert Storm ID	The unique reference applied to the particular alert storm by DSP	Text
Device ID	GUID of the Device triggering the Alert Storm	EUI64

Device Type	Device Type of the Device in the Alert Storm data	String (CHF, GPF, GSME, ESME, PPMID)
Device Status	Smart Meter Inventory Device Status for the Device in the Alert Storm data C – Commissioned D – Decommissioned INC – Installed Not Commissioned P – Pending S – Suspended WLT – White Listed TBC – To Be Confirmed	String (C, D, INC, P, S, WLT, TBC)
Manufacturer	Device Manufacturer Name	Text
Model	Device Model Identifier as per CPL	Text
Firmware	Device current active Firmware	Text
Alert Code	DUIS Alert Code	Text
Alert Description	DUIS Alert Code Description	Text
SEC Party ID Target of Alert	The SEC Party ID for the Party that was the Target for receipt of the Alert	Text
SEC Party Name Target of Alert	The Name of the Party that was the Target for receipt of the Alert	Text
Target Party Role Code	The SEC Role Code that the Target Party is Operating in. (See Appendix 1 for list of Codes)	Text
Target Party Role Code Description	The Description of the SEC Role Code that the Target Party is Operating in. (See Appendix 1 for list of Descriptions)	Text

SEC Party ID Responsible Supplier	The SEC Party ID for the Responsible Supplier	Text
SEC Party Name Responsible Supplier	The Name of the Responsible Supplier	Text
Time First Alert Suppressed	The time the first Alert was suppressed for the Alert Storm Instance in the Reporting Period	HH:MM:SS
Time Last Alert Suppressed	The time the last Alert was suppressed for the Alert Storm Instance in the Reporting Period	HH:MM:SS
Duration in Minutes	The time elapsed between the First Alert Suppressed in the Reporting Period and The Last Alert Suppressed in the Reporting Period expressed in minutes	Integer
Volume of Suppressed Alerts	The volume of Alerts that have been suppressed for the Alert Storm Instance during the reporting Period based on the DSP classification for Discarded being (T)rue	Integer
Volume of Alerts Not Suppressed During Event	The volume of Alerts that have been allowed through that otherwise would have been suppressed for the Alert Storm Instance during the reporting Period based on the DSP classification for Discarded being (F)alse	Integer
Device Subject to CoS Action	Has the Device been identified on the CoS report as being subject to CoS activity	Yes or No

3.7 Alert Storm Parameters

The Alert Storm Parameters as defined in SECMOD 62.

4 Appendix 1 - SEC Role Codes

SEC Role Code	SEC Role Code Description
ACB	Access Control Broker (DSP)
CP	Commissioning Party
CS	Combined Supplier
CSS	Central Switching Service
DCC	DCC Licensee
EES	Electricity Export Supplier
EIS	Electricity Import Supplier
ENO	Electricity Network Operator
GIS	Gas Import Supplier
GNO	Gas Network Operator
OU	Other User
PAC	Parse and Correlate
REC	Certificate Recovery
SNA	Supplier Nominated Agent
TSP	Trusted Service Provider
WAN	WAN Provider (CSP)