This document is classified as **White** in accordance with the Panel Information Policy. Information can be shared with the public, and any members may publish the information, subject to copyright.

Paper Reference:	**TABASC_72_0212_04**
Action:	**For Information**

MP128A 'Gas Network Operators SMKI Requirements'

1. Purpose

The solution implemented under MP128B 'Incorrect Gas Network Operator Certificates' has amended the Post Commissioning obligations so that Suppliers can leave the Access Control Broker (ACB) Certificate in the Gas Network Operator (GNO) slot of the Gas Proxy Function (GPF), unless a Certificate for a GNO that is a Data Communications Company (DCC) User is available in the Smart Metering Key Infrastructure (SMKI) Repository. It has also made it optional instead of mandatory for GNOs to become Subscribers for SMKI Organisation Certificates. However, if a GNO does wish to become a Subscriber for Organisation Certificates they must also be a DCC User and, if they subsequently choose not to be a DCC User, they must arrange for their Organisation Certificate to be replaced by an ACB Certificate.

MP128A 'Gas Network Operators SMKI Requirements' seeks to address the issue whereby when there is a change in organisation for the GNO on a Device, the incoming GNO will be unable to communicate with the Device if the previous GNO's Organisation Certificates are present. It is also intended to update the DCC's Post Commissioning reporting to reflect that Suppliers are able to leave the ACB Certificate in the GNO slot of a GPF.

2. Business Requirements

Business Requirements	
Ref.	**Requirement**
1	The DCC shall update its Post Commissioning reporting to reflect that Suppliers are able to leave the Access Control Broker (ACB) Certificate in the Gas Network Operator (GNO) slot of a Gas Proxy Function (GPF).
2	Where a GNO that is a DCC User intends to cease to be a DCC User, it must ensure that its Organisation Certificates on the Devices are replaced with an ACB Certificate prior to ceasing to be a DCC User.
3	A GNO shall submit a Certificate Revocation Request and shall not subscribe to any further Organisation Certificates prior to ceasing to be a DCC User.

3. Preliminary Assessment

- Total cost to complete the Full Impact Assessment of £10,250.
- The timescales to complete the Full Impact Assessment of 30 days.
- Design, Build, and Pre-Integration Testing (PIT) is expected to take between two and three months to complete.

The estimated DCC implementation cost up to the end of PIT is between £0 and £150,000. Costs to implement are subject to change, depending on the results of the DCC's Full Impact Assessment. More information can be found in the DCC Preliminary Assessment response in Annex B.

With regards to Business Requirement 2, the DCC's Preliminary Impact Assessment concluded that to replace the GNO Certificate held within the Network Operator Trust Anchor Cell of a GPF Device, the GNO will need to send Service Reference Variant (SRV) 6.15.1 'Update Security Credentials (Known Remote Party (KRP)) with an ACB Certificate as the replacement Certificate. This is currently supported by the DCC Total System and therefore no changes are required to the Data Service Provider (DSP) solution to meet this aspect of the requirement.

Great Britain Companion Specification (GBCS) also supports this scenario for the CS02b 'Update Security Credentials' Command on the GPF. However, in this scenario where an ACB certificate has been placed on a GPF by a departing GNO, then any subsequent SRV 6.21 'Request Handover of DCC Controlled Device (Update Supplier Certificates)' request to place a new GNO certificate on that Device at any point in the future will need to pass Device anti-replay checks for the Network Operator Trust Anchor Cell.

For this to be possible, the DSP will need to be aware of the Originator Counter that was used by the GNO when it submitted the SRV 6.15.1 that placed the ACB Certificate on the Device.

The northbound processing of SRV 6.15.1 will therefore be amended such that when the DCC Total System detects that the Security Credentials of a GNO in a GPF has been successfully replaced with the ACB Security Credentials, the Originator Counter of the message will be recorded.

Southbound processing of SRV 6.21 will then also be amended to ensure that the Originator Counter generated by the DCC Total System is greater than the recorded number, thus ensuring that the command will be accepted by the Device.

If this tracking of the Originator Counter is not carried out by the DSP, then the DSP will be unable to create a command that passes Device anti-replay checks and it will no longer be possible to put a valid GNO Certificate on that Device at any point in the future.

4. Recommendations

The TABASC is requested to:

- **NOTE** the contents of this paper;
- **CONSIDER** the results of the DCC's Preliminary Assessment;
- **AGREE** the business requirements are suitable; and
- **AGREE** the modification is ready for a Full Impact Assessment.

Mike Fenn

SECAS Team

2 December 2021

Attachments:

Appendix A: MP128A Modification Report

Annex A: MP128A Business Requirements

Annex B: MP128A DCC Preliminary Assessment response

Annex C: MP128A Legal Text