DCC User Gateway Interface Design Specification

Annex - Service Request Definitions

14 – Record Network Data Service

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14 Record Network Data Service (14 - RNDS)

This section sets out the full content of the DCC Record Network Data Service by providing the overarching service content that includes: service request and response message types, data content items and User access roles.

Service Name	RecordNetworkData(GAS)	**Service Id**	14
Service Objective	To enable a DCC Service User to initiate the recording of gas consumption data at 6 minute intervals over a 4 hour period, in the Gas Smart Metering Equipment Network Data Log as defined by SMETS.		
Business Context Statement	The Network Operator wishes to understand gas distribution network issues		
User Roles	Only the following DCC Service User roles will be able to use the Record Network Data (GAS) Service: • Gas Network Operator (GNO)		

Table 1 Overview of Record Network Data Service

The mapping between the Record Network Data Services and the Devices they apply to is defined as follows:

Service Reference	Service Reference Variant	Name	Business Target ID
14.1	14.1	Record Network Data (GAS)	GSME

Table 2 RNDS - Service Requests / Devices

For each of the RNDS Service Requests supported by the DCC User Gateway, this section details:

- the reference to the appropriate section of the XML Schema (see XML Schema – document 3 of this documentation set)
- the structure of each Service Request and Response with examples (if specific to the Service Request)
- if applicable, Service Request specific Validation and Response Codes

This section should be read in conjunction with the Main Document of this documentation set section 9 (which describes the general formatting for all Service Requests and Service Responses) and with the XSD (XML Schema – document 3 of this documentation set).

14.1 Record Network Data (Gas) (14.1)

Service Request Name	RecordNetworkData (GAS)
Service Reference	14.1
Service Request Variant Name	RecordNetworkData (GAS)
Service Reference Variant	14.1

Service Request Objective	To enable a DCC Service User to initiate the recording of gas consumption data at 6 minute intervals over a 4 hour period, in the Gas Smart Metering Equipment Network Data Log as defined by SMETS.	
Business Context Statement	The Gas Network Operator wishes to understand gas distribution network issues and so initiates an instruction to the GSME to begin logging network sampling data.	
User Role Access	• Gas Network Operator	
Security Classification	Non-critical and non-sensitive *GBCS XREF: SME.C.NC*	
Service Request Narrative	1. The *Network Data Log* as defined in SMETS is a log capable of storing four hours of UTC date and time stamped six minute Consumption data arranged as a circular buffer such that when full, further writes shall cause the oldest entry to be overwritten 2. This Service Request triggers the record on a specified Gas Smart Meter of the gas consumption data at 6 minute intervals over a four hour period. 3. If the Service Request is successful, the required data is written in the Gas Smart Meter's Network Data Log, which can be read from the Gas Smart Meter using Service Request 4.10 Read Network Data. See Annex section 4.10 for details. 4. If the Gas Smart Meter's Network Data Log is not read by the User before executing a subsequent SR14.1 then the data in the Network Data Log is overwritten with the contents of this new request 5. This Service Request can be run Ad-hoc or be DSP Scheduled (via Service Request 5.1 - Create Schedule, see Annex section 5.1), the same User Role Access constraints apply in either case. 6. The SampleID value in the Service Response indicates if a Network Data Log sampling session could be started or not. If the Service Request was part of a sequence, the DCC Data Systems use this information to find out if the Command succeded (if the session could be started) or failed (if the session couldn't be started). If the Command failed the sequence would also be set to failed a. A value of 2 indicates the session was started. b. A value of of 65535 (0xFFFF) indicates the session could not be started (for example because there was another one already running)	
GBCS Cross Reference	Electricity	Gas
GBCS Message Code	N/A	0x0080
GBCS Use Case	N/A	GCS31
GBCS Use Case Name	N/A	Start Network Data Log on GSME

SMETS1 Applicability	No	No

Table 3 Record Network Data (GAS) Service Request

This section should be read in conjunction with the Main Document of this documentation set section 9 (which describes the general formatting for all Service Requests and Service Responses) and with the XSD (XML Schema – document 3 of this documentation set).

14.1.1 Service Request

14.1.1.1 Format

The Request Body XML element of the XSD (see XML Schema – document 3 of this documentation set) defines the structure of all the Service Requests.

Ad-hoc: Its RecordNetworkDataGAS XML element defines this Service Request and it doesn't contain any data items.

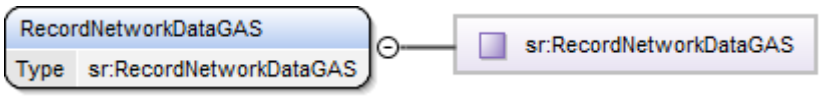

Figure 1 Record Network Data (GAS) Service Request Structure (Ad-hoc)

Create Schedule: Its DSPRecordNetworkDataGAS XML element defines this Service Request and it doesn't contain any data items.

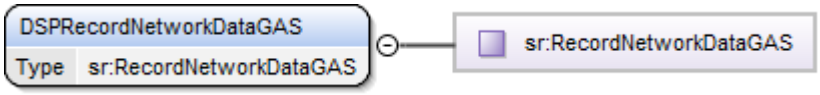

Figure 2 Record Network Data (GAS) Service Request Structure (Create Schedule)

14.1.1.2 Applicable Modes of Operation

The Modes of Operation applicable to this Service Request are (see Main Document of this documentation set section 2.3 for Modes of Operation definitions):

Transform	On Demand	DCC Only	Future Dated	DSP Scheduled
No	Yes	No	No	Yes

Table 4 Record Network Data (GAS) Modes of Operation

14.1.1.3 Applicable Command Variant Values

The Command Variant values applicable to this Service Request are (see Main Document of this documentation set section 3 for Command Variant definitions):

CV = 1	CV = 2	CV = 3	CV = 4	CV = 5	CV = 6	CV = 7	CV = 8
Yes	Yes	Yes	No	No	No	No	No

Table 5 Record Network Data (GAS) Command Variant Values (Ad-hoc)

14.1.1.4 Validation

This Service Request has no specific validation. See Main Document of this documentation set section 7 for generic access control checks.

14.1.1.5 Sample Request

Sample requests are given in Annex Introduction Appendix 2. The specific information for this Service Request (Body) is as follows:

```
<RecordNetworkDataGAS/>
```

Figure 3 Record Network Data (GAS) Service Request (Body) Format (Ad-hoc)

14.1.2 Responses

The response messages for a "Record Network Data (GAS)" request follow the generic format for all "Device" response messages, the generic responses applicable to this request are;

- Acknowledgement
- Service Response (from Device) – GBCSPayload Service Response Specific Payload
- Command for Local Delivery
- Parse Output

See Main Document of this documentation set section 4 for Response IDs returned to DCC Service Users that are Unknown Remote Parties (URP) to the Device.

When this Service Request is run as DSP Scheduled, the Service Response (from Device) is a variation of the generic one and it is defined in Annex section 4.8.1.2.1.

Sample responses are given in Annex Introduction Appendix 1, response specific information details are given below.

14.1.2.1 Parse Output Format

14.1.2.1.1 Format – RecordNetworkDataGASRsp

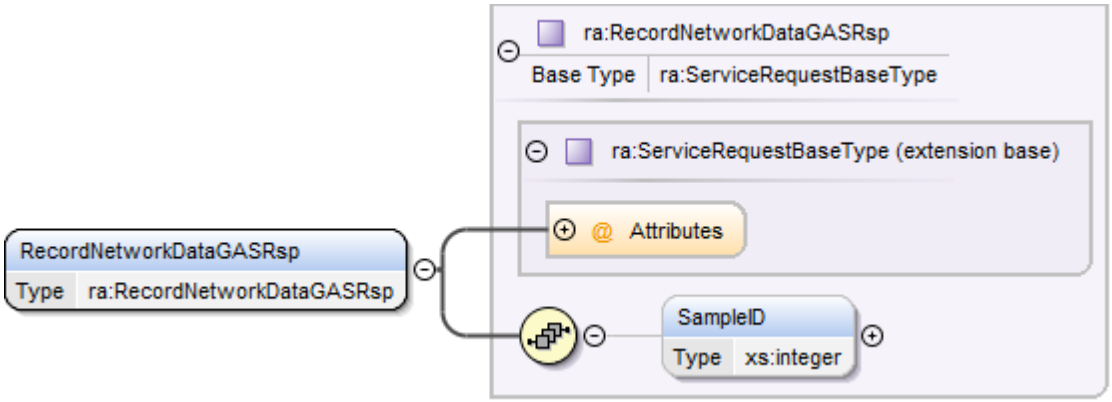

Figure 4 – Record Network Data Gas Response Structure

14.1.2.1.2 Specific Header Data Items

Data Item	Gas Response
GBCSHexadecimalMessageCode	0080

Data Item	Gas Response
GBCS Use Case Number (for information only - not in header)	*GCS31*
GBCS Use Case Name (for information only - not in header)	*Start Network Data Log on GSME*
SupplementaryRemotePartyID	Present
SupplementaryRemotePartyCounter	Present
SupplementaryOriginatorCounter	Not Present
Timestamp	Not Present

Table 6 – Record Network Data (GAS) Parse Response Header Items

14.1.2.1.3 Specific Body Data Items

Data Item	Description / Valid Set	Type	Units	Sensitivity
SampleID	The ID of the sampling session requested on the device. Defined by GBCS to be either, • a value of 2 if a Network Data Log is returned as expected in the normal response • a value of 65535 (0xFFFF) if a sampling session could not be started	xs:integer	None	Non-sensitive

14.1.2.1.4 Sample Response

```
<ra:RecordNetworkDataGASRsp MessageSuccess="true">
    <ra:SampleID>2</ra:SampleID>
</ra:RecordNetworkDataGASRsp>
```

Figure 5 - Record Network Data (GAS) Parse Response Sample