

DCC User Gateway Interface Design Specification

Annex - Service Request Definitions 12 – Pre Device Installation Service

Author: DCC
Version: <u>5.2a</u>
Date: <u>June 2023</u>

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12 Pre Device Installation Service (12 - PDIS)

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

Service Name	PreDeviceInstallation	Service Id	12
Service Objective	To enable a DCC Service User to obtain or provide details to support the installation of Smart Metering Devices		
Business Context Statement	The DCC Service User wants to either check coverage information to support a perspective installation or provide device details to the Smart Metering Inventory to start the Smart Metering installation and commission process		
User Roles	<p>The following user roles have access to the list of service requests which make up the Pre Device Installation Service:</p> <ul style="list-style-type: none">Electricity Import Supplier (EIS)Electricity Export Supplier (EES)Gas Import Supplier (GIS)Supplier Nominated Agent (SNA)Electricity Network Operator (ENO)Gas Network Operator (GNO)Other User (OU)		

Table 1 Overview of Pre Device Installation Service

The mapping between the Pre Device Installation Services and the Devices they apply to is defined as follows:

Service Reference	Service Reference Variant	Name	Business Target ID
12.1	12.1	Request WAN Matrix	DSP AccessControl Broker
12.2	12.2	Device Pre-notification	DSP AccessControl Broker

Table 2 PDIS - Service Requests / Devices

For each of the PDIS 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).

12.1 Request WAN Matrix (12.1)

Service Request Name	RequestWANMatrix	
Service Reference	12.1	
Service Request Variant Name	RequestWANMatrix	
Service Reference Variant	12.1	
Service Request Objective	To enable a DCC Service User to obtain details from the DCC relating to a) the likelihood of connectivity to the SM WAN and b) which WAN technology variant is recommended for the specified install location.	
Business Context Statement	The information provided by the response to this Service Requests will assist the DCC Service User in their installation of Smart Metering Equipment.	
User Role Access	<ul style="list-style-type: none"> Electricity Import Supplier (EIS) Electricity Export Supplier (EES) Gas Import Supplier (GIS) Supplier Nominated Agent (SNA) Electricity Network Operator (ENO) Gas Network Operator (GNO) Other User (OU) 	
Security Classification	Non-critical and non-sensitive: GBCS XREF: SME.C.NC	
Service Request Narrative	<ol style="list-style-type: none"> This Service Request returns data applicable to a single location (premises) only. In cases where no coverage is planned, the Coverage Availability will be set to false and the Anticipated Coverage Date will be set to 31/12/3000. The Self Service Interface Use Case 5.5 “CSP SMWAN Network Coverage” can be used by all DCC Service Users to more widely query the SMWAN (Smart Metering Wide Area Network) coverage data in a more interactive manner and at a wider less specific level across GB in each of the 3 CSP regions; North, Central and South to assist with rollout planning. 	
GBCS Cross Reference	Electricity	Gas
GBCS Message Code	N/A	N/A

GBCS Use Case	N/A	N/A
GBCS Use Case Name	N/A	N/A
SMETS1 Applicability	No	No

Table 3 Request WAN Matrix 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 (see XML Schema – document 3 of this documentation set).

12.1.1 Service Request

12.1.1.1 Format

The ServiceRequest Body XML element of the XSD (see XML Schema – document 3 of this documentation set) defines the structure of all the Service Requests. Its RequestWANMatrix XML element defines this Service Request and contains either the UPRN or the Partial Address for which details are required.

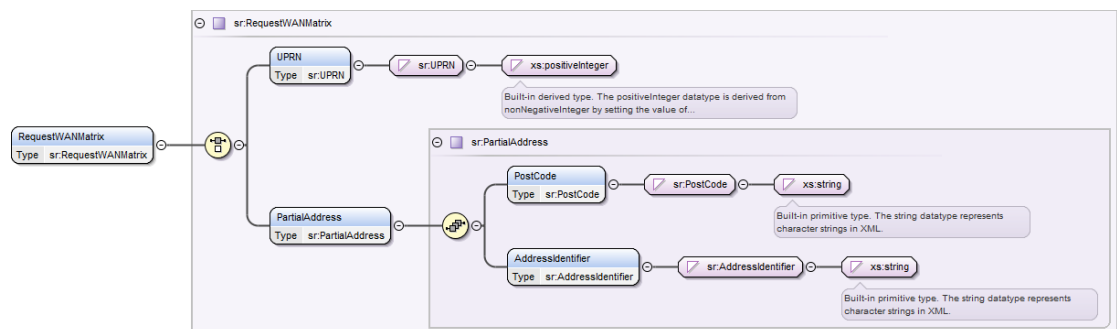


Figure 1 Request WAN Matrix Service Request Structure

12.1.1.2 Specific Data Items Definition

The data items contained in the Service Request are defined as:

Data Item	Description / Valid Set	Type	Mandatory ¹	Default	Units	Sensitivity
UPRN	Unique Property Reference Number	sr:UPRN (Restriction of xs:positiveInteger (totalDigits = 12))	No	None	N/A	Non-Sensitive
PartialAddress	Postcode and Address Identifier that uniquely identify an address	sr:PartialAddress (see section 12.1.1.3)	No	None	N/A	Non-Sensitive

Table 4 Request WAN Matrix Service Request Data Items

¹ The Request is a choice, so must only include one Data Item

12.1.1.3 PartialAddress Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
PostCode	Postcode of Metering Point This search criteria is case insensitive.	sr:PostCode (Restriction of xs:string (minLength = 6 maxLength = 8))	Yes	None	N/A	Non-Sensitive
AddressIdentifier	Address Identifier (house number or house name), that combined with the Postcode, allows the identification of the premises This search criteria is case insensitive.	sr:AddressIdentifier (Restriction of xs:string (maxLength = 30))	Yes	None	N/A	Non-Sensitive

Table 5 Request WAN Matrix Service Request – PartialAddress Data Items

12.1.1.4 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	No	Yes	No	No

Table 6 Request WAN Matrix Modes of Operation

12.1.1.5 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
No	No	No	No	No	No	No	Yes

Table 7 Request WAN Matrix Command Variant Values

12.1.1.6 Validation

This Service Request specific validation is as follows (see Main Document of this documentation set section 7 for generic access control checks):

Validation Check	Process	Response Code
Does the Request identify a unique set of coverage information?	Check that the Request identifies a unique set of coverage information	E120101
Is there SM WAN data for the location?	Check that there is SM WAN data for the location (property)	E120102

Table 8 Request WAN Matrix Service Request Validation

Note that this Service Request is available on the basis of Eligible User Role (rather than a User's status as an Eligible User in respect of a particular Smart Metering System or Device). In other words, the generic authorisation check associated to E4 is N/A. The generic authorisation check associated to E5 is N/A either. See Main Document of this documentation set section 7.4

12.1.1.7 Sample Request

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

```
<RequestWANMatrix>
  <PartialAddress>
    <PostCode>KT22 7LP</PostCode>
    <AddressIdentifier>17</AddressIdentifier>
  </PartialAddress>
</RequestWANMatrix>
```

Figure 2 Request WAN Matrix Service Request (Body) Format

12.1.2 Responses

The response messages for a "Request WAN Matrix" request follow the generic format for all "DCC Only" Service Responses.

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

12.1.2.1 Service Response (from DCC)

Applicable to cases where the Request is successful and the WAN Matrix details are returned to the DCC Service User.

12.1.2.1.1 Format

This Service Request response is defined in the XSD ResponseMessage DSPWANMatrix element, which contains the WAN connectivity details.

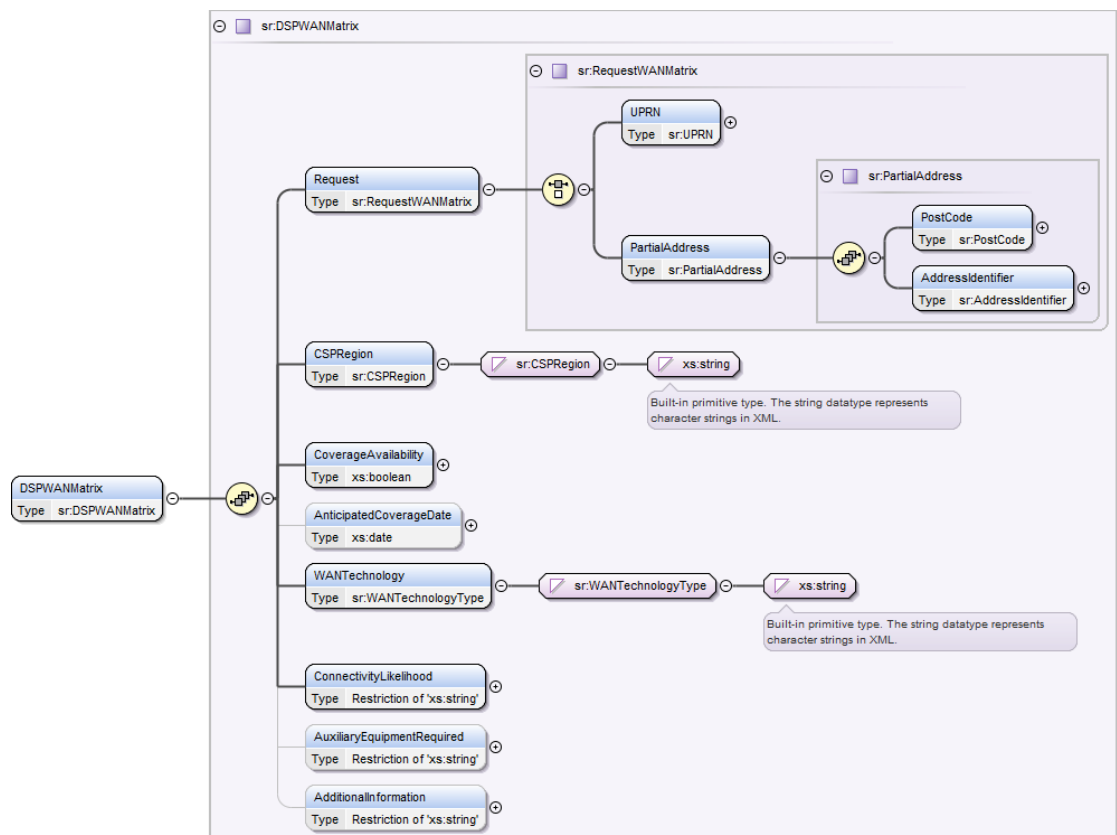


Figure 3 Request WAN Matrix Service Response (from DCC) Structure

12.1.2.1.2 Specific Data Items

Returned if the DCC Data Items successfully processed the Request.

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
Request	Input details of the Request, i.e. UPRN or Partial Address	sr:RequestWANMatrix (see section 12.1.1.2)	Yes	None	N/A	Non-Sensitive
CSPRegion	The CSP Region the address is associated with Valid set: <ul style="list-style-type: none"> North Central South 	sr:CSPRegion (Restriction of xs:string (Enumeration))	Yes	None	N/A	Non-Sensitive
CoverageAvailability	Coverage Availability Valid set: <ul style="list-style-type: none"> true. (Yes) false. (No) 	xs:boolean	Yes	None	N/A	Non-Sensitive
AnticipatedCoverageDate	If Coverage Availability is set to false, the anticipated date when Coverage will be available. If no Coverage is planned then this date will be set to 31/12/3000	xs:date	Coverage Availability = false: Yes Otherwise: N/A	None	N/A	Non-Sensitive
WANTechnology	The WAN technology to be used for this location The allowable values shall be in line with Equipment names as defined and maintained within Annex E of the CH INSTALLATION AND MAINTENANCE SUPPORT MATERIALS Typical values are; CSP South and Central <ul style="list-style-type: none"> Cellular Cellular + Mesh CSP North <ul style="list-style-type: none"> Standard 420 Variant 450 	sr:WANTechnologyType (Restriction of xs:string (maxLength = 30))	Yes	None	N/A	Non-Sensitive
ConnectivityLikelihood	The likely Connectivity strength Valid set: <ul style="list-style-type: none"> High Medium Low 	Restriction of xs:string (Enumeration)	Yes	None	N/A	Non-Sensitive
AuxiliaryEquipmentRequired	Free text with details of any required auxiliary equipment, if any	Restriction of xs:string (maxLength = 50)	No ¹	None	N/A	Non-Sensitive
AdditionalInformation	Free text providing additional information	Restriction of xs:string (maxLength = 250)	No	None	N/A	Non-Sensitive

Table 9 Request WAN Matrix Service Request Response Data Items

¹ Only included if auxiliary equipment is required

12.1.2.1.3 Sample Responses

Sample responses are given in Annex Introduction Appendix 1. The specific information for this Service Request Response is as follows:

```
<ResponseMessage>
  <ServiceReference>12.1</ServiceReference>
  <ServiceReferenceVariant>12.1</ServiceReferenceVariant>
  <DSPWANMatrix>
    <Request>
      <PartialAddress>
        <PostCode>KT22 7LP</PostCode>
        <AddressIdentifier>17</AddressIdentifier>
      </PartialAddress>
    </Request>
    <CSPRegion>Central</CSPRegion>
    <CoverageAvailability>true</CoverageAvailability>
    <WANTechnology>Cellular</WANTechnology>
    <ConnectivityLikelihood>Medium</ConnectivityLikelihood>
  </DSPWANMatrix>
</ResponseMessage>
```

Figure 4 Sample Request WAN Matrix Service Response (from DCC) Format

12.1.2.2 Unsuccessful Response

The Response Codes specific to this Service Request are:

Response Code	Response Code Name	Response Code Type	Description
E120101	Failed Validation – No location identified	Error	No unique set of coverage information can be identified from the Request
E120102	Failed Validation – WAN Data not available	Error	No SM WAN data exists for the requested location (property)

Table 10 Failed Request WAN Matrix Service Request Response Codes

12.2 Device Pre-notification (12.2)

Service Request Name	DevicePrenotification
Service Reference	12.2
Service Request Variant Name	DevicePrenotification
Service Reference Variant	12.2
Service Request Objective	To enable a DCC Service User to provide the DCC with details of Devices (identifier, etc.) to be stored within the DCC Smart Metering Inventory) that they intend to install at some point in the future.
Business Context Statement	The DCC Service User wants to provide the DCC with a pre-notification of details for a device that is planned to be installed.
User Role Access	<ul style="list-style-type: none"> Electricity Import Supplier (EIS) Electricity Export Supplier (EES) Gas Import Supplier (GIS) Supplier Nominated Agent (SNA)

	<ul style="list-style-type: none"> Electricity Network Operator (ENO) Gas Network Operator (GNO) Other User (OU)
Security Classification	<p>Non-critical and non-sensitive</p> <p>SMETS2 or later:</p> <p>GBCS XREF: SME.C.NC</p>
Service Request Narrative (SMETS2 or later)	<ol style="list-style-type: none"> All Devices that are to be displayed to DCC Service Users via the Smart Metering Inventory must have a Device Pre-notification Service Request sent to the DCC. Each Device to be added to the Smart Metering Inventory must be notified by the DCC Service User with a separate Device Pre-notification Service Request with the exception of the CHF and GPF. The Communications Hub Function and Gas Proxy Function associated to the same physical Communications Hub are notified via a single Service Request. The Device ID in the Service Request has to be that of the CHF. If the Device ID is that of a Communications Hub Function, the Request has to include the Gas Proxy Function Device ID associated to it. The Device Manufacturer, Device Model and Firmware Version are shared by both Devices, so they only need to be provided once. The DCC Data Systems will record this data against both Device IDs within the Smart Metering Inventory and will set the Device Type of the Gas Proxy Function ID to GasProxyFunction. Only Devices not already in the Smart Metering Inventory and those with a status of 'Decommissioned' or 'Withdrawn' can be pre-notified. The result of a successful execution of this Service Request will be to add the Device to the Smart Metering Inventory if it didn't already exist and, if the Device has a Device Status, it will be set to 'Pending' to enable the Installation and Commissioning cycle to begin (these actions are carried out before the Service Response is generated). <ol style="list-style-type: none"> If the Device didn't already exist in the Smart Metering Inventory, it will be added and, if applicable, its Device status will be set to 'Pending'. <ol style="list-style-type: none"> If the Device Type was a Communications Hub Function, its associated Gas Proxy Function will also be added to the Smart Metering Inventory and its Device status set to 'Pending' Device status is not applicable to Type 2 Devices, i.e. IHD and CAD If the Device did already exist in the Smart Metering Inventory with a status of 'Decommissioned' or 'Withdrawn', its status will be set to 'Pending'. <ol style="list-style-type: none"> If the Device Type was a Communications Hub Function, its associated Gas Proxy

Function Device status will also be set to 'Pending'

6. Once a Device ID has been added to the Smart Metering Inventory via this Service Request, it cannot be amended by this Service Request. It must be updated or removed using Service Request 8.4 – Update Inventory (see Annex section 8.4) and, if required, a new Device Pre-notification sent to the DCC.
 - a. Please note that if an existing Device ID in a status of 'Decommissioned' or 'Withdrawn' is pre-notified using Service Request 12.2 it is possible to update its details, e.g. Firmware Version at the same time
7. For CHF / GPF this Service Request should only be used in cases where these Devices hadn't been Pre-notified by the DCC via a CSP Notification Report
8. Please note – It is expected that under normal circumstances the DCC shall populate the Smart Metering Inventory with Communications Hub Function and Gas Proxy Function details and there is no need for Users to pre-notify the DCC for these Device types. The option exists in the rare cases where pre notification has not occurred and it is preventing installation. In these scenarios the User has the ability to Pre Notify the DCC of these Device Types if required
9. For Hand Held Terminal devices to be used they must be pre-notified as an IHD using this Service Request.
10. The ESMEVariant data item added to the Smart Metering Inventory (SMI) may be different from the definition as stated in SMETS and held on an ESME. Meter Variant is stated in SMETS as 'A data item to indicate if ESME is Single Element Electricity Metering Equipment, Twin Element Electricity Metering Equipment or Polyphase Electricity Metering Equipment.' Thus, it can only have three values and not the wider range of enumeration values as defined within this Service Request.
11. Where a single Device has combined functionality such as PPMID, IHD and/or CAD functionality, this Device shall be pre-notified with a single Device ID and will correspond to a Device Model certified with a single Device Type. It is expected to comply with the security characteristics of the higher security classification, so e.g. in the case of a Device combining PPMID and IHD functionality it would be certified as a PPMID, i.e. a Type 1 Device, and would be pre-notified and displayed to all parties as a PPMID. Any joining of this device to other Devices on the HAN should follow the standard process for a Device Type to match the Device Type that is pre-notified.
12. A Standalone Auxiliary Proportional Controller (SAPC) Device is a specialised form of ESME and should be pre-notified as Device Type ESME with an appropriate ESME Variant combination including G (e.g. AG). Support for SAPC functionality is available from DUIS v4.0 and GBCS v4.0.

GBCS Cross Reference	Electricity	Gas
GBCS Message Code	N/A	N/A
GBCS Use Case	N/A	N/A
GBCS Use Case Name	N/A	N/A
SMETS1 Applicability	Yes for ESME (Single Element), GSME, CHF/GPF, PPMID, IHD and CAD	
Service Request Narrative (SMETS1)	<p>The behaviour of DCC for this Service Request with regard to SMETS1 Devices is equivalent to the behaviour for SMETS2 or later Devices except:</p> <ol style="list-style-type: none"> 1. The SMETS1 Device Types to be pre-notified using this Service Request. are: ESME, GSME, CHF, GPF, PPMID, IHD and CAD 2. The SMETSCHTSVersion of SMETS1 Device Type IHD should begin "SMETS1.", e.g. "SMETS1.2". 3. For CHF / GPF this Service Request should only be used in cases where these Devices hadn't been Pre-notified by an S1SP. 4. It is expected that for SMETS1 ESME Devices only Single Element variants will be available on the CPL. 5. Device Status Withdrawn does not apply to SMETS1 Devices. 6. ESME Variants D (ALCS), F (APC) and G (SAPC), and combinations including them, are not applicable to SMETS1 	

Table 11 Device Pre-notification 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 (see XML Schema – document 3 of this documentation set).

The following table summarises the mapping between the CPL and the DUGIDS Device Type (and for ESME also the ESME Variant). Please note that an SAPC is managed as Device Type ESME with an ESME Variant combination including G.

CPL Device Type	DUGIDS Device Type		DUGIDS ESME Variant	
	SMETS2 or later	SMETS1	SMETS2 or later	SMETS1
Communications Hub	CHF and GPF	CHF and GPF	N/A	N/A
Single Element Electricity Metering Equipment	ESME	ESME	A, AD or ADE; From DUIS v4.0, also ¹ : ADEF, ADF,	A

CPL Device Type	DUGIDS Device Type		DUGIDS ESME Variant	
	SMETS2 or later	SMETS1	SMETS2 or later	SMETS1
			ADEG, ADG, AF, AEF, AG or AEG	
Twin Element Electricity Metering Equipment	ESME	N/A	B, BD or BDE; From DUIS v4.0, also ¹ : BDEF, BDF, BF or BEF	N/A
Polyphase Element Electricity Metering Equipment	ESME	N/A	C, CD or CDE; From DUIS v4.0, also ¹ : CDEF, CDF, CF or CEF	N/A
Gas Smart Meter	GSME	GSME	N/A	N/A
Prepayment Interface Device	PPMID	PPMID	N/A	N/A
HAN Connected Auxiliary Load Control Switch	HCALCS	N/A	N/A	N/A

Table 12 CPL / DUGIDS Device Type mapping

¹ Combinations introduced in DUIS v4.0. These combinations cannot be included in a request using a version of DUIS prior to DUIS v4.0

12.2.1 Request

12.2.1.1 Format

The ServiceRequest Body XML element of the XSD (see XML Schema – document 3 of this documentation set) defines the structure of all the Service Requests. Its DevicePrenotification XML element defines this Service Request and contains the Device details to be updated in the Smart Metering Inventory.

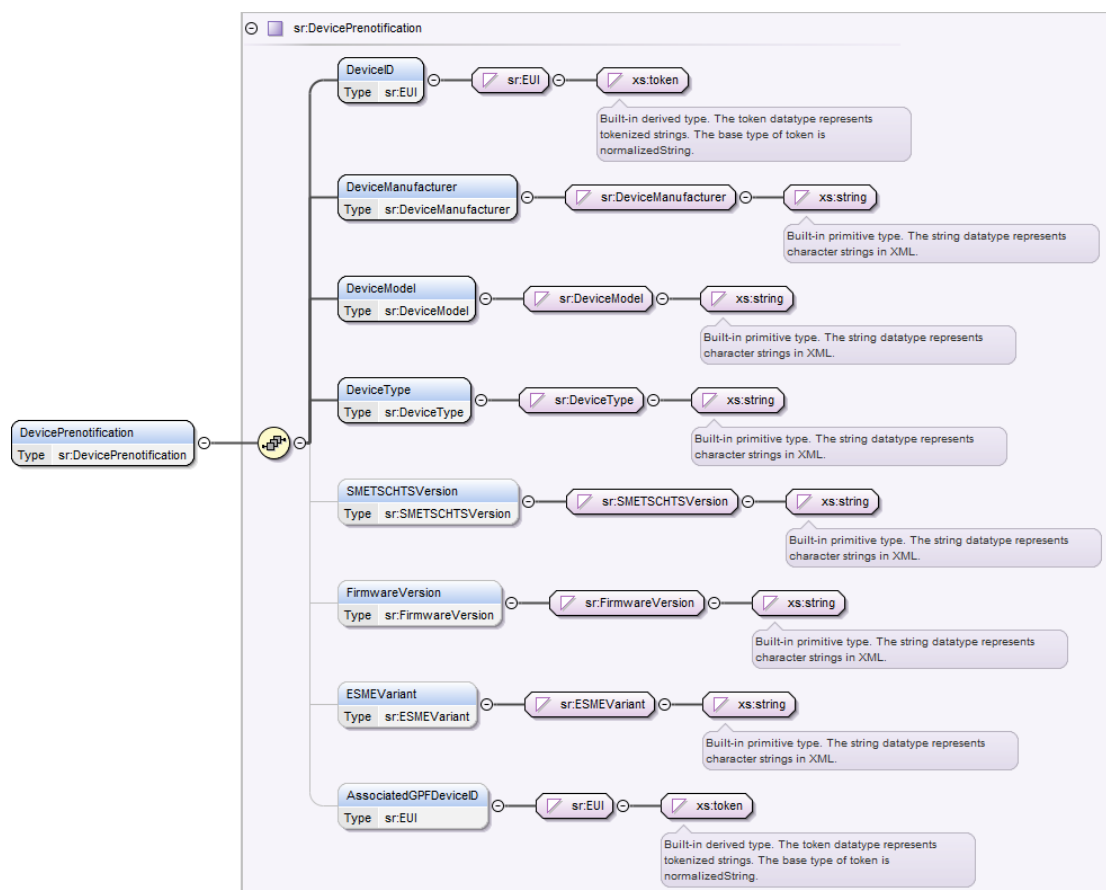


Figure 5 Device Pre-notification Service Request Structure

12.2.1.2 Specific Data Items Definition

The data items contained in the Service Request are defined as:

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceID	A unique ID for the Device	sr:EUI (see Annex 17)	Yes	None	N/A	Non-Sensitive
DeviceManufacturer	<p>The name of the Device's manufacturer</p> <p>With the exception of IHD and CAD:</p> <ul style="list-style-type: none"> The Device Manufacturer is the <device_model_manufacturer_identifier> from the CPL and presented in the format XXXX where each X is one of the characters 0 to 9 or A to F This data item must match the value on the CPL (excluding the colon separator between octet values) otherwise a validation error is raised, see E120203. <p>For IHD and CAD this data item is free text</p>	sr:DeviceManufacturer (Restriction of xs:string (maxLength = 30))	Yes	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceModel	<p>The specific model of the device, as used by the manufacturer With the exception of IHD and CAD:</p> <ul style="list-style-type: none"> The Device Model is the concatenation of <device_model .model_identifier>< device_model .hardware_version.version> < device_model .hardware_version.revision> from the CPL and presented in the format XXXXXXXX where each X is one of the characters 0 to 9 or A to F Where: <ul style="list-style-type: none"> the first 4 characters are the model identifier the next 2 characters are the hardware version.version the final 2 characters are the hardware version.revision This data item must match the value on the CPL (excluding the colon separator between octet values) otherwise a validation error is raised, see E120203. <p>For IHD and CAD this data item is free text</p>	sr:DeviceModel (Restriction of xs:string (maxLength = 30))	Yes	None	N/A	Non-Sensitive
DeviceType	<p>The Type of device Valid set:</p> <ul style="list-style-type: none"> ESME GSME CHF HCALCS¹ PPMID IHD CAD <p>With the exception of IHD and CAD, this data item must match the value on the CPL otherwise a validation error is raised, see E120203.</p> <p>See Table 12 for mapping between XML enumerated values and CPL values</p>	sr:DeviceType (Restriction of xs:string (Enumeration))	Yes	None	N/A	Non-Sensitive
SMETSCHTSVersion	<p>The version of SMETS or CHTS that the Device complies with. This should align with the CPL version</p>	sr:SMETSCHTSVersion (Restriction of xs:string (minLength = 1, maxLength = 20))	Device Type = CAD: N/A Otherwise: Yes	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
FirmwareVersion	<p>The operational version of Firmware of the Device.</p> <p>The Firmware version as held in the CPL and presented in the format XXXXXXXX where each X is one of the characters 0 to 9 or A to F.</p> <p>This data item must match the value on the CPL (excluding the colon separator between octet values) otherwise a validation error is raised, see E120203.</p>	Restriction of xs:string (minLength = 1, maxLength = 8)	<p>All Devices except Type 2: Yes</p> <p>Type 2: N/A</p>	None	N/A	Non-Sensitive
ESMEVariant	<p>Electricity Smart Metering Equipment Variant.</p> <p>Valid set:</p> <ul style="list-style-type: none"> • A. Single Element • B. Twin Element¹ • C. Polyphase¹ • AD. Single Element with ALCS¹ • BD. Twin Element with ALCS¹ • CD. Polyphase with ALCS¹ • ADE. Single Element with ALCS and Boost Function¹ • BDE. Twin Element with ALCS and Boost Function¹ • CDE. Polyphase with ALCS and Boost Function¹ • ADF. Single Element with ALCS and APC^{1, 2, 3} • BDF. Twin Element with ALCS and APC^{1, 2, 3} • CDF. Polyphase with ALCS and APC^{1, 2, 3} • ADEF. Single Element with ALCS, Boost Function and APC^{1, 2, 3} • BDEF. Twin Element with ALCS, Boost Function and APC^{1, 2, 3} • CDEF. Polyphase with ALCS, Boost Function and APC^{1, 2, 3} • ADG Single Element with ALCS and SAPC^{1, 2, 3} • ADEG. Single Element with ALCS, Boost Function and SAPC^{1, 2, 3} • AF. Single Element with APC^{1, 2, 3} • BF. Twin Element with APC^{1, 2, 3} 	sr:ESMEVariant Restriction of xs:string (Enumeration)	<p>DeviceType = ESME:</p> <p>Yes</p> <p>Otherwise: N/A</p>	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
	<ul style="list-style-type: none"> CF. Polyphase with APC^{1, 2, 3} AEF. Single Element with Boost Function and APC^{1, 2, 3} BEF. Twin Element with Boost Function and APC^{1, 2, 3} CEF. Polyphase with Boost Function and APC^{1, 2, 3} AG. Single Element with SAPC^{1, 2, 3} AEG. Single Element with Boost Function and SAPC^{1, 2, 3} <p>See Table 12 for mapping between XML enumerated values and CPL values</p>					
AssociatedGPFDeviceID	A unique ID for the Gas Proxy Function Device associated to the Communications Hub Function	sr:EUI (see Annex 17)	DeviceType = CommunicationsHubFunction: Yes Otherwise: N/A	None	N/A	Non-Sensitive

Table 13 Device Pre-notification Service Request Data Items

¹ N/A to SMETS1

² N/A to Devices prior to GBCS v4.0

³ This combination cannot be included in a request using a version of DUIS prior to DUIS v4.0

12.2.1.3 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):

Service	Transform	On Demand	DCC Only	Future Dated	DSP Scheduled
SMETS2 or later	No	No	Yes	No	No
SMETS1	No	No	Yes	No	No

Table 14 Device Pre-notification Modes of Operation

12.2.1.4 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):

Service	CV = 1	CV = 2	CV = 3	CV = 4	CV = 5	CV = 6	CV = 7	CV = 8
SMETS2 or later	No	No	No	No	No	No	No	Yes

Service	CV = 1	CV = 2	CV = 3	CV = 4	CV = 5	CV = 6	CV = 7	CV = 8
SMETS1	No	No	No	No	No	No	No	Yes

Table 15 Device Pre-notification Command Variant Values

12.2.1.5 Validation

This Service Request specific validation is as follows (see Main Document of this documentation set section 7 for generic access control checks):

Validation Check	Process	Response Code
Is the Device existence and / or status in inventory correct? ¹	Check that the Device ID: <ul style="list-style-type: none"> Didn't exist in Inventory or, if it existed in Inventory, its status was 'Decommissioned' or 'Withdrawn'. 	E120201
Is the Device valid as per the Certified Product List?	Check that the Device Type (and first character of ESME Variant for ESME) / Manufacturer / Model / Firmware Version data specified by the DCC User matches the DCC's list of equipment that has been approved for use (Certified Products List - CPL), if validation against certified products list is required for this Device Type. The CPL contains CHF, ESME, GSME and Type 1 devices.	E120203
Is the data in the Request consistent?	Check that all the optional data items applicable to the Device Type are included in the Request and not present otherwise: <ul style="list-style-type: none"> SMETSCHTSVersion. Included for Device Types ESME, GSME, CHF, HCALCS, PPMID, IHD. Not included for Device Type CAD FirmwareVersion. Included for Device Types that require firmware (i.e. CHF, ESME, GSME, HCALCS and PPMID) and not included otherwise ESMEVariant. Included for Device Type ESME and not included otherwise AssociatedGPFDDeviceID. Included for Device Type CHF and not included otherwise 	E120204
Is the Device Type valid?	Check that the Device Type is not GPF	E120207

Table 16 Device Pre-notification Service Request Validation

¹ This check supersedes the generic Authorisation Check associated to Response Code E5. See Main Document of this documentation set section 7.4

Note that this Service Request is available on the basis of Eligible User Role (rather than a User's status as an Eligible User in respect of a particular Smart Metering System or Device). In other words, the generic authorisation check associated to E4 is N/A. See Main Document of this documentation set section 7.4

12.2.1.6 Sample Request

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

```
<DevicePrenotification>
  <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
  <DeviceManufacturer>AB02</DeviceManufacturer>
  <DeviceModel>D7A50E04</DeviceModel>
  <DeviceType>ESME</DeviceType>
  <SMETSCHTSVersion>SMETS V2.0</SMETSCHTSVersion>
  <FirmwareVersion>1100EEFF</FirmwareVersion>
  <ESMEVariant>A</ESMEVariant>
</DevicePrenotification>
```

Figure 6 Device Pre-notification Service Request (Body) Format

12.2.2 Responses

The response messages for a “Device Pre-notification” request follow the generic format for all “DCC Only” Service Responses, the generic responses applicable to this request are;

- Acknowledgement

Sample responses are given in Annex Introduction Appendix 1.

12.2.2.1 Unsuccessful Response

The Response Codes specific to this Service Request are:

Response Code	Response Code Name	Response Code Type	Description
E120201	Failed Validation – Invalid Device Status	Error	The Device ID already existed in Inventory and its Status wasn't 'Decommissioned' or 'Withdrawn'
E120203	Failed Validation – Invalid Request	Error	The Device Type / Manufacturer / Model / Firmware Version data specified by the DCC User does not match the DCC's list of equipment that has been approved for use
E120204	Failed Validation – Inconsistent Request	Error	Not all the applicable optional data items are included in the Request or not applicable data items are included in the Request
E120207	Failed Validation – Invalid Device Type	Error	This Device Type can't be Pre-notified

Table 17 Failed Device Pre-notification Service Request Response Codes