

**ZIGBEE SMART ENERGY**

**STANDARD**

**Protocol Implementation**

**Conformance Statement (PICS)**

Revision 8

Version 1.2a

**Sponsored by:** ZigBee Alliance

**Accepted by:** ZigBee Alliance Board of Directors

**Abstract:** This document lists the PICS for the Smart Energy Standard.

**Purpose:** Provides a pro-forma on which the capabilities and options of a particular implementation of the Smart Energy Standard can be stated.

**Keywords:** ZigBee, Qualification, Certification, Standard, Smart Energy, Metering, Energy Management

**December 3, 2014**

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References

The following standards contain provisions, which, through reference in this document, constitute provisions of this standard. All the standards listed are normative references. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

## ZigBee Alliance documents

1. ZigBee document 053474r20:The ZigBee Specification
2. ZigBee document 07-5356: ZigBee Smart Energy Standard Revision 19
3. ZigBee document 07-5123-04, ZigBee Cluster Library Specification
4. ZigBee document 04300r08: ZigBee Network Layer PICS
5. ZigBee document 064147r07: ZigBee Application Layer PICS
6. ZigBee document 043171r04: ZigBee Security Layer PICS
7. ZigBee document 064113r07: ZigBee Cluster Library PICS
8. ZigBee document 08006r05: ZigBee 2007 Layer PICS and Stack Profiles
9. ZigBee document number 09-5264-23: ZigBee OTA Upgrade Cluster Specification
10. ZigBee document number 09-5284-09: ZigBee OTA Upgrade Cluster PICS
11. ZigBee document number 09-5473-07: ZigBee OTA Upgrade Cluster Test Specification

## IEEE documents

1. IEEE Standard for Part 15.4: Wireless Medium Access Control (MAC) and Physical Layer (PHY) specifications for Low Rate Wireless Personal Area Networks (LR-WPANs), 2003.

## ISO documents

1. ISO/IEC 9646-1:1991, Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts.
2. ISO/IEC 9646-7:1995, Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7. Implementation conformance statements.

Change history

The following table shows the change history for this specification.

Table – Revision change history

|  |  |  |
| --- | --- | --- |
| Revision | Version | Description |
| R00 | - | Initial draft (November, 2007) |
| R01 | - | Updated to Revision 12 of the SE specification and Errata. |
| R02 | - | Updated to Revision 14 of the SE specification |
| R03 | 1.0 | Fix typo. Update SE specification reference to r14. |
| R04 | 1.0 | Update SE specification reference to r15.  Update section references. |
| R05 | 1.1 | Update for SE 1.1 release |
| R06 | 1.1.1 | Update for SE 1.1.1 release  Processed CCBs:  1264 - Add support for CV and PTZ (gas conversion factors) to price cluster  1273 - Additional of 'Get Support Tunnel Protocols' Command and Response  1289 - PhysicalEnvironment bit for Mirroring  1301 - Simplified Multi-ESI Time Sync  1430 - PICS requirement (Table 38 - item MCC1) wrong  1431 - PICS requirement (Table 5 - item SEG25) wrong  1432 - PICS requirement (KES1 and KECS1) Mismatch  1437 - DeviceClass is marked read-writeable but write may not be allowed  1486 - End point requirement |
| R07 | 1.1b | Update for SE 1.1b release  Processed CCBs:  1494 - Add Billing Period Attribute Set to the Price Cluster  1496 - Duplicate Item Number in PICS Document Table [MCS2]  1500 - New metering attribute for block pricing  1570 - Rename Display Device to "In-Home Display" (IHD)  Modifications to link the elements of the Block Tariff feature together |
| R08 | 1.2a | Update for SE 1.2a release  Processed CCBs:  1886 - IntervalReadReportingPeriod - Remove Attribute from the Spec  1999 - Heating and Cooling Mandatory Attributes  (for details of changes between 1.1b and 1.2a, please refer to editors’ drafting document 13-0453) |

1. Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a given standard. Such a statement is called a protocol implementation conformance statement (PICS).

## Scope

This document provides the protocol implementation conformance statement (PICS) pro forma for the ZigBee specifications cited in Reference [R2] in compliance with the relevant requirements, and in accordance with the relevant guidance, given in ISO/IEC 9646-7.

This document addresses the ZigBee SE Application Profile.

## Purpose

The supplier of a protocol implementation claiming to conform to the ZigBee SE Application Profile shall complete the following PICS pro forma and accompany it with the information necessary to identify fully both the supplier and the implementation.

The PICS is in the form of answers to a set of questions in the PICS pro forma. The questions in a pro forma consist of a systematic list of protocol capabilities and options as well as their implementation requirements. The implementation requirement indicates whether implementation of a capability is mandatory, optional, or conditional depending on options selected. When a protocol implementer answers questions in a PICS pro forma, they would indicate whether an item is implemented or not, and provide explanations if an item is not implemented.

1. Abbreviations and special symbols

Notations for requirement status:

|  |  |
| --- | --- |
| M | Mandatory |
| O | Optional |
| O.n | Optional, but support of at least one of the group of options labeled O.n is required. |
| N/A | Not applicable |
| X | Prohibited |
| *Item Number:* :*Status* | Status is conditional on support of item number |

“*Item Number*”: Conditional, status dependent upon the support marked for the “*Item Number*”.

For example, FD1: O.1 indicates that the status is optional but at least one of the features described in FD1 is required to be implemented, if this implementation is to follow the standard of which this PICS Pro forma is a part.

1. Instructions for completing the PICS pro forma

If a given implementation is claimed to conform to this standard, the actual PICS pro forma to be filled in by a supplier shall be technically equivalent to the text of the PICS pro forma in this annex, and shall preserve the numbering and naming and the ordering of the PICS pro forma.

A PICS which conforms to this document shall be a conforming PICS pro forma completed in accordance with the instructions for completion given in this annex.

The main part of the PICS is a fixed-format questionnaire, divided into five tables. Answers to the questionnaire are to be provided in the rightmost column, either by simply marking an answer to indicate a restricted choice (such as Yes or No), or by entering a value, set, or range of values.

1. Identification of the implementation

**Implementation under test (IUT) identification**

IUT name: \_EK410-UK\_\_Itron Metering Solutions UK Ltd

IUT version:

Zigbee (ZC 31.48)

STM32: 02.38

PCB 48UBCIFC.SGI V0.8

**System under test (SUT) identification**

SUT name: PC Connected Via USB

Software Version:

CATT V0.8.50

Hardware Version: None

Operating system (optional): Windows 7

**Specification Versions Implemented**

Smart Energy Specification Document Number (include revision): 07-5356-19

Smart Energy Test Specification Document (include revision): 07-5384-21

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Additional information: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**PICS/System conformance statement**

1. Identification of the protocol

This PICS pro forma applies to ZigBee SE Application Profile, cited in Reference [R2].

1. Global statement of conformance

The implementation described in this PICS pro forma meets all of the mandatory requirements of the referenced standards:

Application Profile: ZigBee SE – 07-5356-19





Note -- Answering ‘No’ indicates non-conformance to the specified protocol standard. Non-supported mandatory capabilities are to be identified in the following tables, with an explanation by the implementer explaining why the implementation is non-conforming.

The supplier will have fully complied with the requirements for a statement of conformance by completing the statement contained in this sub-clause. That means, by clicking the above, the statement of conformance is complete.

1. PICS pro forma tables

The following tables are composed of the detailed questions to be answered, which make up the PICS pro forma.

## ZigBee Device Types

Table - Functional device types

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| FDT1 | Is this device capable of acting as a ZigBee coordinator? | [R1]/2.5.5.5.1 | [[1]](#footnote-1)O.1 | Y |
| FDT2 | Is this device capable of acting as a ZigBee router? | [R1]/2.5.5.5.2 | O.1 | Y |
| FDT3 | Is this a ZigBee end device? | [R1]/2.5.5.5.3 | O.1 | N |

## Stack Profile

Table –Stack Profile

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| ZSP1 | Is the device built on a ZigBee Compliant Platform certified for the ZigBee stack profile [R8]? | [R4]  [R2]/5.2 | O.2[[2]](#footnote-2) | Y |
| ZSP2 | Is the device built on a ZigBee PRO Compliant Platform certified for the ZigBee PRO stack profile [R8]? | [R8]  [R2]/5.2 | O.2 | Y |

## Stack Profile extensions for SE

Table – Stack profile extensions for SE

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| SPE1 | Does the device support Application Link Keys? | [R2]/5.2  [R6]/ASLS6 | M | Y |
| SPE2 | Does this device use a stack that supports fragmentation? | [R2]/5.2  [R5]/ADF5, ADF6 | M | Y |
| SPE3 | Does this device use any SE Profile Commands that require the use of Fragmentation? | [R2]/5.2  [R5]/ADF5, ADF6 | MC1: M  MS1: M | Y |
| SPE4 | Does the device adhere to the polling rate specifications given in [R2]/5.2 (i.e. Does your application poll equal to or less often as called out in the specification)? | [R2]/5.2 | FDT3:M | NA |
| SPE5 | Does this devices support reception of fragmented messages? |  | M | Y |
| SPE6 | Does this device support generation of fragmented messages? |  | O | Y |

## SE general requirements support

In the below tables please answer Yes / No for supported , number of instances supported, and end point for each instance. In support one instance can just provide end point number without instance number.

Table – SE general requirements support

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| SEG1 | Does the device support the ZigBee Cluster Library? | [R2]/5.11, 5.12  [R3] | M | Y |
| SEG2 | Does the device support the ZigBee Cluster Library List specified for SE including the mandatory/optional clusters detailed in the ZCL PICs? | [R2]/5.11, 5.12  [R7] | M | Y |
| SEG3 | Does the device support the ZigBee Cluster Library with the parameters for attribute reporting, reporting configuration and read reporting configuration as detailed in the SE Profile clusters?  Editor’s Note: Reporting interval constraints and other parameters are mandatory where attribute reporting is used. Support of attribute reporting may be optional or mandatory based on clusters implemented. | [R2]/5.11  [R3] | M | Y |
| SEG4 | Is the device capable of joining a ZigBee SE network and does it interact with a consumer ZigBee Home Area Network only through a bridge device? | [R2]/5.1 | FDT2: M  FDT3: M | NA |
| SEG5 | Does the device support “E-Mode” commissioning?  SE Profile requirement: Those devices that will join an existing network must support button pushes or simple documented user interfaces to initiate the joining process. | [R2]/5.1 | FDT2: M  FDT3: M  For joining devices | NA |
| SEG6 | Deleted | [R2]/5.1 |  | N/A |
| SEG7 | Does the device support the compatible Startup Attribute Set, Join Parameters, Security Parameters, End Device Parameters, Link Status Parameters, Concentrator Parameters, APS Transport Parameters and Binding Parameters? | [R2]/5.3, 5.3.1, 5.3.2, 5.3.3, 5.3.4, 5.3.5, 5.3.6, 5.3.7, 5.3.8, 5.3.9 | M | Y |
| SEG8 | Does the device support joining with pre-installed link keys?  Note: SE specifies use of Install Codes to derive the link key. | [R2]/5.4.1 | FDT2: M  FDT3: M | NA |
| SEG9 | Does the device support joining using the key establishment cluster? | [R2]/5.4.7 | FDT2: M  FDT3: M | NA |
| SEG10 | Deleted | [R2]/5.5 |  | NA |
| SEG11 | Does the device support the list of SE preferred channels? | [R2]/5.8.1 | O | Y |
| SEG12 | Does the device support the SE broadcast policy? | [R2]/5.8.2 | O | N |
| SEG13 | Does the device support the SE frequency agility policy? | [R2]/5.8.3 | O | N |
| SEG14 | Does the device support the security key update policies for SE networks? | [R2]/5.8.4 | M | Y |
| SEG15 | Does the device support the ZCL Time Cluster and SE time synchronization?  Editor’s Note: Support of the ZCL Time Cluster is not mandatory for all SE devices. The SE device descriptions define the required Time cluster support. | [R2]/5.12.1.1 | O | Y |
| SEG16 | Does the device support discovery of optional attributes? | [R2]/5.12 | M | Y |
| SEG17 | Does the device application discover and handle unsupported attributes in other devices? | [R2]/5.12 | M | Y |
| SEG18 | Does the device support an indication to the user that the network has formed properly? | [R2]/5.5.1 | O  . | Y |
| SEG19 | Does the device support an indication to the user that a device has joined a network successfully? | [R2]/5.5.1 | O | Y |
| SEG20 | Does the device support the commissioning modes and provide supporting commissioning documentation according to network type? | [R2]/5.5.2, 5.5.3, 5.5.4 | M | Y |
| SEG21 | Does the device use the appropriate security key per cluster? | [R2]/5.4.6 | M | Y |
| SEG22 | Does the device support the SE Mirrored Device Capacity – Service Discovery? | [R4]/D.3.4.4.1 | O | Y |
| SEG23 | Does one of the device support the SE Install Code Formats: 48, 64, 96, or 128 bit number and 16 bit CRC? | [R4]/5.4.8.1.1 | O | Y |
| SEG24 | Does the device expect to receive unsolicited messages from the DRLC, Messaging, Metering or Pricing clusters? | [R4]/5.4.5.1 | O | Y |
| SEG25 | Does the device support rejoining a secured network? | [R4]/5.4.2 | FDT2:M  FDT3:M | NA |
| SEG26 | Does the device support devices leaving its network? | [R4]/5.4.3 | FDT1:M | Y |
| SEG27 | Does the device support updating the Network Key? | [R4]/5.4.4 | M | Y |
| SEG28 | Does the device support updating the Link Key? | [R4]/5.4.5 | M | Y |
| SEG29 | Does the device support Federated Trust Center functionality? | [R2]/5.6 | O | N |
| SEG30 | Does the device support Network Interoperabiity? | [R2]/5.13 | O | Y |

## ZigBee SE device description support

Table 6 – SE device description support

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| SED1 | Is the product programmed as an Energy Service Interface? | [R2]/6.3.1 | O.3[[3]](#footnote-3) | Y |
| SED2 | Is the product programmed as a Metering Device? | [R2]/6.3.2 | O.3 | N |
| SED3 | Is the product programmed as an In-Home Display? | [R2]/6.3.3 | O.3 | N |
| SED4 | Is the product programmed as a Programmable Communicating Thermostat (PCT)? | [R2]/6.3.4 | O.3 | N |
| SED5 | Is the product programmed as a Load Control? | [R2]/6.3.5 | O.3 | N |
| SED6 | Is the product programmed as a Range Extender? | [R2]/6.3.6 | O.3 | N |
| SED7 | Is the product programmed as a Smart Appliance? | [R2]/6.3.7 | O.3 | N |
| SED8 | Is the product programmed as a Prepayment Terminal? | [R2]/6.3.8 | O.3 | N |
| SED9 | Does the product utilize an endpoint using the Physical Device identifier? | [R2]/6.3.9 | O | N |
| SED10 | Is the product programmed as a Remote Communications Device? | [R2]/6.3.10 | O.3 | N |

## SE common clusters

The common cluster ZCL PICs restrictions/requirements are obtained from [R2]/5.11, 5.12.

Table – Common cluster ZCL PICS restrictions/requirements

| ZCL PICS Item number [R7] | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| FC100 | M | ZCL Cluster ID enumeration is mandatory | Y |
| FC1 | M | General ZCL Frame Format is mandatory | Y |
| BCC1 | O | Does the device support the Basic Cluster as a client? | N |
| BCS1 | M | Does the device support the Basic Cluster as a server? | Y |
| GCC1 | O | Deleted | NA |
| GCS1 | O | Deleted | NA |
| ACC1 | O | Does the device support the Alarms Cluster as a client? | Y |
| ACS1 | O | Does the device support the Alarms Cluster as a server? | N |
| TCS1 |  | Deleted | NA |
| TCC1 |  | Deleted | NA |

Table – Common cluster support

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| ASDC1 | Deleted | [R2]/5.10 |  | NA |
| ASDC2 | Deleted | [R2]/5.10 |  | NA |
| ASDC3 | Deleted | [R2]/5.10 |  | NA |
| ASDS1 | Deleted |  | O | NA |
| ASDS2 | Deleted |  |  |  |
| ASDS3 | Deleted |  |  |  |
| KEC1 | Does the device support the Key Establishment cluster as a client? | [R2]/Annex C.3.1 | M | Y |
| KES1 | Does the device support the Key Establishment cluster as a server? | [R2]/Annex C.3.1 | M | Y |
| SECC1 | Does the device support clusters with Reporting Capability? | [R2]/6.1.1 | O | Y |
| SECC2 | Are any manufacturer-specific cluster(s) supported? | [R2]/6.1.2 | O | N |
| SECC3 | Are any non-SE ZCL or other application cluster(s) supported? | [R2]/6.1.3 | O | Y |
| ICS1 | Does the device support the Identify cluster? | [R2]/ 6.1 | O | Y |
| PCCS1 | Does the device support the Power Configuration cluster? | [R2]/ 6.1 | O | N |
| SMC2 | Does the device support the Block Tariffs Metering cluster attributes as a client? | [R2]/ 6.1 | O | N |
| SMS2 | Does the device support the Block Tariffs Metering cluster attributes as a server? | [R2]/ 6.1 | O | N |
| TCSW1 | Does the device support Trust Center Swap-out ? | [R2]/ 6.1 | O |  |
| OTAC1 | Does the device support the OTA Upgrade cluster as a client? | [R2]/ 6.1 | O | N |
| OTAS1 | Does the device support the OTA Upgrade cluster as a server? | [R2]/ 6.1 | O | N |
| EVS1 | Does the device support the Events cluster as a server? | [R2]/ 6.1 | O | Y |

## ZigBee SE Device Description Capabilities

Tables in the following sub-clauses detail the capabilities specific to a device description.

### Energy Service Interface device functions

Table – Energy Service Interface ZCL PICS restrictions/requirements

| ZCL PICS Item number [R7] | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| TCS1 | M | Time Cluster server is mandatory | Y |

Table 10 provides the SE PICs restrictions based on requirements in [R2]/6.3.1.1.

Table – Energy Service Interface SE PICS restrictions/requirements

| SE PICS Item number | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| SMC1 | O | Metering Cluster client is optional | Y |
| SMS1 | O | Metering Cluster server is optional | Y |
| MS1 | M | Messaging Cluster server is mandatory | Y |
| PS1 | M | Price Cluster server is mandatory | Y |
| DRLS1 | M | Demand Response and Load Cluster server is mandatory | Y |
| PC1 | O | Price Cluster client is optional | N |
| CALS1 | O | Calendar Cluster server is optional | Y |
| MC1 | O | Messaging Cluster client is optional | N |
| PPC1 | O | Prepayment Cluster client is optional | Y |
| PPS1 | O | Prepayment Cluster server is optional | Y |
| DMS1 | O | Device Management Cluster server is optional | Y |
| DMC1 | O | Device Management Cluster client is optional | N |
| ALM1 | O | Alarms Cluster server is optional | N |
| EVC1 | O | Events Cluster client is optional | Y |
| MDUS1 | O | MDU Pairing Cluster server is optional | N |
| MDUC1 | O | MDU Pairing Cluster client is optional | N |
| EMC1 | O | Energy Management Cluster client is optional | N |
| TUS1 | O | Tunneling Cluster server is optional | Y |
| TCSW1 | O | Trust Center Swap-out is optional |  |
| TUC1 | O | Tunneling Cluster client is optional | Y |

### Metering device functions

Table – Metering device ZCL PICS restrictions/requirements

| ZCL PICS Item number [R7] | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| TCC1 | O | Time Cluster client is optional | [Y/N] [Int: EP# x] |

Table 12 provides the SE PICs restrictions based on requirements in [R2]/6.3.2.1.

Table – Metering device SE PICS restrictions/requirements

| SE PICS Item number | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| SMS1 | M | Metering Cluster server is mandatory | [Y/N] [Int: EP# x] | |
| PPS1 | O | Prepayment Cluster server is optional | [Y/N] [Int: EP# x] | |
| PC1 | O | Price Cluster client is optional | [Y/N] [Int: EP# x] | |
| CALC1 | O | Calendar Cluster client is optional | [Y/N] [Int: EP# x] | |
| MC1 | O | Messaging Cluster client is optional | [Y/N] [Int: EP# x] | |
| DMC1 | O | Device Management Cluster client is optional | [Y/N] [Int: EP# x] | |
| MDUC1 | O | MDU Pairing Cluster client is optional | [Y/N] [Int: EP# x] | |
| ALM1 | O | Alarms Cluster server is optional | [Y/N] [Int: EP# x] | |
| SMS3 | SMS2:O | Block Tariffs Metering cluster server attributes are optional | [Y/N] [Int: EP# x] | |
| TUC1 | O | Tunneling Cluster client is optional | [Y/N] [Int: EP# x] | |
| TUS1 | O | Tunneling Cluster server is optional | [Y/N] [Int: EP# x] | |
| TCSW1 | O | Trust Center Swap-out is optional | [Y/N] [Int: EP# x] | |

### In-Home display device functions

Table – In-Home display device ZCL PICS restrictions/requirements

| ZCL PICS Item number [R7] | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| TCC1 | O | Time Cluster client is optional | [Y/N] [Int: EP# x] |

Table 14 provides the SE PICs restrictions based on requirements in [R2]/6.3.3.1.

Table – In-Home display device SE PICS restrictions/requirements

| SE PICS Item number | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| DRLC1 | O | Demand Response and Load Cluster client is optional | [Y/N] [Int: EP# x] |
| PC1 | O | Price Cluster client is optional | [Y/N] [Int: EP# x] |
| CALC1 | O | Calendar Cluster client is optional | [Y/N] [Int: EP# x] |
| SMC1 | O | Metering Cluster client is optional | [Y/N] [Int: EP# x] |
| PPC1 | O | Prepayment Cluster client is optional | [Y/N] [Int: EP# x] |
| MC1 | O | Messaging Cluster client is optional | [Y/N] [Int: EP# x] |
| DMC1 | O | Device Management Cluster client is optional | [Y/N] [Int: EP# x] |
| MDUC1 | O | MDU Pairing Cluster client is optional | [Y/N] [Int: EP# x] |
| EMC1 | O | Energy Management Cluster client is optional | [Y/N] [Int: EP# x] |
| ALM1 | O | Alarms Cluster server is optional | [Y/N] [Int: EP# x] |
| EVC1 | O | Events Cluster client is optional | [Y/N] [Int: EP# x] |
| TUS1 | O | Tunneling Cluster server is optional | [Y/N] [Int: EP# x] |
| TUC1 | O | Tunneling Cluster client is optional | [Y/N] [Int: EP# x] |
| TCSW1 | O | Trust Center Swap-out is optional | [Y/N] [Int: EP# x] |

### Programmable Communicating Thermostat (PCT) device functions

Table Programmable Communicating Thermostat (PCT) ZCL PICS restrictions/requirements

| ZCL PICS Item number [R7] | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| TCC1 | M | Time Cluster client is mandatory | [Y/N] [Int: EP# x] |

Table 16 provides the SE PICs restrictions based on requirements in [R2]/6.3.4.1.

Table Programmable Communicating Thermostat (PCT) SE PICS restrictions/requirements

| SE PICS Item number | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| DRLC1 | M | Demand Response and Load Cluster client is mandatory | [Y/N] [Int: EP# x] |
| PPC1 | O | Prepayment Cluster client is optional | [Y/N] [Int: EP# x] |
| PC1 | O | Price Cluster client is optional | [Y/N] [Int: EP# x] |
| CALC1 | O | Calendar Cluster client is optional | [Y/N] [Int: EP# x] |
| SMC1 | O | Metering Cluster client is optional | [Y/N] [Int: EP# x] |
| MC1 | O | Messaging Cluster client is optional | [Y/N] [Int: EP# x] |
| DMC1 | O | Device Management Cluster client is optional | [Y/N] [Int: EP# x] |
| MDUC1 | O | MDU Pairing Cluster client is optional | [Y/N] [Int: EP# x] |
| EMS1 | O | Energy Management Cluster server is optional | [Y/N] [Int: EP# x] |
| ALM1 | O | Alarms Cluster server is optional | [Y/N] [Int: EP# x] |
| TUS1 | O | Tunneling Cluster server is optional | [Y/N] [Int: EP# x] |
| TUC1 | O | Tunneling Cluster client is optional | [Y/N] [Int: EP# x] |
| TCSW1 | O | Trust Center Swap-out is optional | [Y/N] [Int: EP# x] |

### Load Control device functions

Table – Load Control ZCL PICS restrictions/requirements

| ZCL PICS Item number [R7] | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| TCC1 | M | Time Cluster client is mandatory | [Y/N] [Int: EP# x] |

Table 18 provides the SE PICs restrictions based on requirements in [R2]/6.3.5.1.

Table – Load Control SE PICS restrictions/requirements

| SE PICS Item number | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| DRLC1 | M | Demand Response and Load Cluster client is mandatory | [Y/N] [Int: EP# x] |
| PC1 | O | Price Cluster client is optional | [Y/N] [Int: EP# x] |
| CALC1 | O | Calendar Cluster client is optional | [Y/N] [Int: EP# x] |
| DMC1 | O | Device Management Cluster client is optional | [Y/N] [Int: EP# x] |
| MDUC1 | O | MDU Pairing Cluster client is optional | [Y/N] [Int: EP# x] |
| EMS1 | O | Energy Management Cluster server is optional | [Y/N] [Int: EP# x] |
| ALM1 | O | Alarms Cluster server is optional | [Y/N] [Int: EP# x] |
| TUS1 | O | Tunneling Cluster server is optional | [Y/N] [Int: EP# x] |
| TUC1 | O | Tunneling Cluster client is optional | [Y/N] [Int: EP# x] |
| TCSW1 | O | Trust Center Swap-out is optional | [Y/N] [Int: EP# x] |

### Range Extender device functions

Table – Range Extender ZCL PICS restrictions/requirements

| ZCL PICS Item number [R7] | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| TCC1 | O | Time Cluster client is optional. | [Y/N] [Int: EP# x] |

Table 20 provides the SE PICs restrictions based on requirements in [R2]/6.3.6.1.

Table –Range Extender SE PICS restrictions/requirements

| SE PICS Item number | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| TCSW1 | O | Trust Center Swap-out is optional | [Y/N] [Int: EP# x] |

### Smart Appliance device functions

Table – Smart Appliance ZCL PICS restrictions/requirements

| ZCL PICS Item number [R7] | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| TCC1 | M | Time Cluster client is mandatory | [Y/N] [Int: EP# x] |

Table 22 provides the SE PICs restrictions based on requirements in [R2]/6.3.7.1.

Table –Smart Appliance SE PICS restrictions/requirements

| SE PICS Item number | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| PPC1 | O | Prepayment Cluster client is optional | [Y/N] [Int: EP# x] |
| DRLC1 | O | Demand Response and Load Cluster client is optional | [Y/N] [Int: EP# x] |
| PC1 | M | Price Cluster client is mandatory | [Y/N] [Int: EP# x] |
| SMC1 | O | Metering Cluster client is optional  ED NOTE: This is not listed in the specification – should it be? | [Y/N] [Int: EP# x] |
| MC1 | O | Messaging Cluster client is optional | [Y/N] [Int: EP# x] |
| CALC1 | O | Calendar Cluster client is optional | [Y/N] [Int: EP# x] |
| DMC1 | O | Device Management Cluster client is optional | [Y/N] [Int: EP# x] |
| MDUC1 | O | MDU Pairing Cluster client is optional | [Y/N] [Int: EP# x] |
| EMS1 | O | Energy Management Cluster server is optional | [Y/N] [Int: EP# x] |
| ALM1 | O | Alarms Cluster server is optional | [Y/N] [Int: EP# x] |
| TUS1 | O | Tunneling Cluster server is optional | [Y/N] [Int: EP# x] |
| TUC1 | O | Tunneling Cluster client is optional | [Y/N] [Int: EP# x] |
| TCSW1 | O | Trust Center Swap-out is optional | [Y/N] [Int: EP# x] |

### Prepayment Terminal device functions

Table – Prepayment Terminal ZCL PICS restrictions/requirements

| ZCL PICS Item number [R7] | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| TCC1 | M | Time Cluster client is mandatory | [Y/N] [Int: EP# x] |

Table 24 provides the SE PICs restrictions based on requirements in [R2]/6.3.8.1.

Table – Prepayment Terminal SE PICS restrictions/requirements

| SE PICS Item number | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| DRLC1 | O | Demand Response and Load Cluster client is optional | [Y/N] [Int: EP# x] |
| PC1 | M | Price Cluster client is mandatory | [Y/N] [Int: EP# x] |
| PPS1 | M | Prepayment Cluster server is mandatory | [Y/N] [Int: EP# x] |
| PPC1 | M | Prepayment Cluster client is mandatory | [Y/N] [Int: EP# x] |
| SMC1 | O | Metering Cluster client is optional | [Y/N] [Int: EP# x] |
| MC1 | O | Messaging Cluster client is optional | [Y/N] [Int: EP# x] |
| CALC1 | O | Calendar Cluster client is optional | [Y/N] [Int: EP# x] |
| DMC1 | O | Device Management Cluster client is optional | [Y/N] [Int: EP# x] |
| MDUC1 | O | MDU Pairing Cluster client is optional | [Y/N] [Int: EP# x] |
| EMC1 | O | Energy Management Cluster client is optional | [Y/N] [Int: EP# x] |
| ALM1 | O | Alarms Cluster server is optional | [Y/N] [Int: EP# x] |
| TUS1 | O | Tunneling Cluster server is optional | [Y/N] [Int: EP# x] |
| TUC1 | O | Tunneling Cluster client is optional | [Y/N] [Int: EP# x] |
| TCSW1 | O | Trust Center Swap-out is optional | [Y/N] [Int: EP# x] |

### Remote Communications Device functions

Table – Remote Communications Device ZCL PICS restrictions/requirements

| ZCL PICS Item number [R7] | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| TCS1 | O | Time Cluster server is optional | [Y/N] [Int: EP# x] |

Table 26 provides the SE PICs restrictions based on requirements in [R2]/6.3.10.1.

Table – Remote Communications Device SE PICS restrictions/requirements

| SE PICS Item number | Status | Additional Constraints | Support |
| --- | --- | --- | --- |
| TUS1 | O | Tunneling Cluster server is optional | [Y/N] [Int: EP# x] |
| TUC1 | O | Tunneling Cluster client is optional | [Y/N] [Int: EP# x] |
| TCSW1 | O | Trust Center Swap-out is optional | [Y/N] [Int: EP# x] |

## Smart Energy Application Specific Cluster function capabilities

### Basic Cluster

Table – Basic cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| BCS1 | Is the Basic Cluster supported as a server? | [R3] | M | Y  EP:1/17 |
| BCS2 | Is the *ZCLversion* attribute supported? |  | BCS1:M | Y  EP:1/17 |
| BCS3 | Is the *Powersource* attribute supported? |  | BCS1:M | Y  EP:1/17 |
| BCS4 | Is the *PhysicalEnvironment* attribute supported? |  | SEG22:M  BCS1:O | Y  EP:1/17 |

Table – Basic cluster client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| BCC1 | Is the Basic Cluster supported as a client? | [R3] | O | N |

### Identify

### Alarms

### Commissioning

### Power Configuration

### Time Cluster attributes and functions

Table – Time cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| TICS1 | Is the Time Cluster supported as a server? | [R3] | O | Y  EP:1 |
| TICS2 | Is the Time attribute supported? |  | TICS1:M | Y  EP:1 |
| TICS3 | Is the TimeStatus attribute supported? |  | TICS1:M | Y  EP:1 |
| TICS4 | Is the TimeZone attribute supported? |  | TICS1:O | Y  EP:1 |
| TICS5 | Is the DstStart attribute supported? |  | TICS1:O | Y  EP:1 |
| TICS6 | Is the DstEnd attribute supported? |  | TICS1:O | Y  EP:1 |
| TICS7 | Is the DstShift attribute supported? |  | TICS1:O | Y  EP:1 |
| TICS8 | Is the StandardTime attribute supported? |  | TICS1:O | Y  EP:1 |
| TICS9 | Is the LocalTime attribute supported? |  | TICS1:O | Y  EP:1 |

Table – Time cluster client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| TICC1 | Is the Time Cluster supported as a client? | [R3] | O | N |

### Key Establishment Cluster attributes and functions

Table – Key Establishment cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| KECS1 | Is the Key Establishment Cluster supported as a server? | [R2]/C.3.1 | M | Y  EP:1 |
| KECS2 | Is the KeyEstablishmentSuite attribute supported? | [R2]/C.3.1.2.2.1 | KECS1:M | Y  EP:1 |
| KECS3 | Is the reception of Initiate Key Establishment Request command supported? | [R2]/C.3.1.2.3.1 | KECS1:M | Y  EP:1 |
| KECS4 | Is the reception of Ephemeral Data Request command supported? | [R2]/C.3.1.2.3.2 | KECS1:M | Y  EP:1 |
| KECS5 | Is the reception of Confirm Key Data Request command supported? | [R2]/C.3.1.2.3.3 | KECS1:M | Y  EP:1 |
| KECS6 | Is the reception of Terminate Key Establishment command supported? | [R2]/C.3.1.2.3.4 | KECS1:M | Y  EP:1 |
| KECS7 | Is the generation of Initiate Key Establishment Response command supported? | [R2]/C.3.1.2.4 / C.3.1.3.3.1 | KECS1:M | Y  EP:1 |
| KECS8 | Is the generation of Ephemeral Data Response command supported? | [R2]/C.3.1.2.4 / C.3.1.3.3.2 | KECS1:M | Y  EP:1 |
| KECS9 | Is the generation of Confirm Key Data Response command supported? | [R2]/C.3.1.2.4 / C.3.1.3.3.3 | KECS1:M | Y  EP:1 |
| KECS10 | Is the generation of Terminate Key Establishment command supported? | [R2]/C.3.1.2.4 / C.3.1.3.3.4 | KECS1:M | Y  EP:1 |

Table – Key Establishment cluster client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| KECC1 | Is the Key Establishment Cluster supported as a client? | [R2]/C.3.1 | M | Y  EP:1 |
| KECC2 | Is the KeyEstablishmentSuite attribute supported? | [R2]/C.3.1.3.2.1 | KECC1:M | Y  EP:1 |
| KECC3 | Is the reception of Initiate Key Establishment Response command supported? | [R2]/C.3.1.3.3.1 | KECC1:M | Y  EP:1 |
| KECC4 | Is the reception of Ephemeral Data Response command supported? | [R2]/C.3.1.3.3.2 | KECC1:M | Y  EP:1 |
| KECC5 | Is the reception of Confirm Key Data Response command supported? | [R2]/C.3.1.3.3.3 | KECC1:M | Y  EP:1 |
| KECC6 | Is the reception of Terminate Key Establishment command supported? | [R2]/C.3.1.3.3.4 | KECC1:M | Y  EP:1 |
| KECC7 | Is the generation of Initiate Key Establishment Request command supported? | [R2]/C.3.1.3.4 / C.3.1.2.3.1 | KECC1:M | Y  EP:1 |
| KECC8 | Is the generation of Ephemeral Data Request command supported? | [R2]/C.3.1.3.4 / C.3.1.2.3.2 | KECC1:M | Y  EP:1 |
| KECC9 | Is the generation of Confirm Key Data Request command supported? | [R2]/C.3.1.3.4 / C.3.1.2.3.3 | KECC1:M | Y  EP:1 |
| KECC10 | Is the generation of Terminate Key Establishment command supported? | [R2]/C.3.1.3.4 / C.3.1.2.3.4 | KECC1:M | Y  EP:1 |

### Demand Response and Load Control Cluster attributes and functions

Table – Demand Response and Load Control cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| DRLCCS1 | Is the Demand Response and Load Control Cluster supported as a server? | [R2]/D.2 | O | Y  EP:1 |
| DRLCCS2 | Is the reception of Report Event Status command supported? | [R2]/D.2.2.4 / D.2.3.3.1 | DRLCCS1:M | Y  EP:1 |
| DRLCCS3 | Is the reception of Get Scheduled Events command supported? | [R2]/D.2.2.4 / D.2.3.3.2 | DRLCCS1:M | Y  EP:1 |
| DRLCCS4 | Is the generation of Load Control Event command supported? | [R2]/D.2.2.3.1 | DRLCCS1:M | Y  EP:1 |
| DRLCCS5 | Is the generation of Cancel Load Control Event command supported? | [R2]/D.2.2.3.2 | DRLCCS1:M | Y  EP:1 |
| DRLCCS6 | Is the generation of Cancel All Load Control Events command supported? | [R2]/D.2.2.3.3 | DRLCCS1:M | Y  EP:1 |

Table – Demand Response and Load Control cluster client capabilities

| Item number | Item description | Reference | | Status | Support |
| --- | --- | --- | --- | --- | --- |
| DRLCCC1 | Is the Demand Response and Load Control Cluster supported as a client? | [R2]/D.2 | | O | N |
| DRLCCC2 | Is the UtilityEnrolmentGroup attribute supported? | | [R2]/D.2.3.2.1 | DRLCCC1:M | NA |
| DRLCCC3 | Is the StartRandomizeMinutes attribute supported? | | [R2]/D.2.3.2.2 | DRLCCC1:M | NA |
| DRLCCC4 | Is the StopRandomizeMinutes attribute supported? | | [R2]/D.2.3.2.3 | DRLCCC1:M | NA |
| DRLCCC5 | Is the DeviceClassValue attribute supported? | | [R2]/D.2.3.2.4 | DRLCCC1:M | NA |
| DRLCCC5.1 | Is it permitted to externally write the DeviceClassValue attribute? | | [R2]/D.2.3.2.4 | DRLCCC1:O | NA |
| DRLCCC6 | Is the reception of Load Control Event command supported? | | [R2]/D.2.3.4 / D.2.2.3.1 | DRLCCC1:M | NA |
| DRLCCC7 | Is the reception of Cancel Load Control Event command supported? | | [R2]/D.2.3.4 / D.2.2.3.2 | DRLCCC1:M | NA |
| DRLCCC8 | Is the reception of Cancel All Load Control Events command supported? | | [R2]/D.2.3.4 / D.2.2.3.3 | DRLCCC1:M | NA |
| DRLCCC9 | Is the generation of Report Event Status command supported? | | [R2]/D.2.3.3.1 | DRLCCC1:M | NA |
| DRLCCC10 | Is the generation of Get Scheduled Events command supported? | | [R2]/D.2.3.3.2 | DRLCCC1:M | NA |

### Metering Cluster attributes and functions

Table – Metering cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| MECS1 | Is the Metering Cluster supported as a server? | [R2] D.3 | O | Y  EP:17 |
| MECS2 | Is the CurrentSummationDelivered attribute supported? | [R2] D.3.2.2.1.1 | MECS1:M | Y  EP:17 |
| MECS3 | Is the CurrentSummationReceived attribute supported? | [R2] D.3.2.2.1.2 | MECS1:O | N |
| MECS4 | Is the CurrentMaxDemandDelivered attribute supported? | [R2] D.3.2.2.1.3 | MECS1:O | N |
| MECS5 | Is the CurrentMaxDemandReceived attribute supported? | [R2] D.3.2.2.1.4 | MECS1:O | N |
| MECS6 | Is the DFTSummation attribute supported? | [R2] D.3.2.2.1.5 | MECS1:O | N |
| MECS7 | Is the DailyFreezeTime attribute supported? | [R2] D.3.2.2.1.6 | MECS1:O | N |
| MECS8 | Is the PowerFactor attribute supported? | [R2] D.3.2.2.1.7 | MECS1:O | N |
| MECS9 | Is the ReadingSnapShotTime attribute supported? | [R2] D.3.2.2.1.8 | MECS1:O | Y  EP:17 |
| MECS10 | Is the CurrentMaxDemandDeliveredTime attribute supported? | [R2] D.3.2.2.1.9 | MECS1:O | N |
| MECS11 | Is the CurrentMaxDemandReceivedTime attribute supported? | [R2] D.3.2.2.1.10 | MECS1:O | N |
| MECS12 | Is the DefaultUpdatePeriod attribute supported? | [R2] D.3.2.2.1.11 | MECS1:O | N |
| MECS13 | Is the FastPollUpdatePeriod attribute supported? | [R2] D.3.2.2.1.12 | MECS1:O | N |
| MECS14 | Is the CurrentBlockPeriodConsumptionDelivered attribute supported? | [R2] D.3.2.2.1.13 | MECS132:M  MECS133:M | N |
| MECS15 | Is the DailyConsumptionTarget attribute supported? | [R2] D.3.2.2.1.14 | MECS1:O | N |
| MECS16 | Is the CurrentBlock attribute supported? | [R2] D.3.2.2.1.15 | MECS132:O  MECS133:O | Y  EP:17 |
| MECS17 | Is the CurrentTier1SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | Y  EP:17 |
| MEC18 | Is the CurrentTier1SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS19 | Is the CurrentTier2SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | Y  EP:17 |
| MECS20 | Is the CurrentTier2SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS21 | Is the CurrentTier3SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | Y  EP:17 |
| MECS22 | Is the CurrentTier3SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS23 | Is the CurrentTier4SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | Y  EP:17 |
| MECS24 | Is the CurrentTier4SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS25 | Is the CurrentTier5SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS26 | Is the CurrentTier5SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS27 | Is the CurrentTier6SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS28 | Is the CurrentTier6SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS29 | Is the CurrentTier7SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS30 | Is the CurrentTier7SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS31 | Is the CurrentTier8SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS32 | Is the CurrentTier8SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS33 | Is the CurrentTier9SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS34 | Is the CurrentTier9SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS35 | Is the CurrentTier10SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS36 | Is the CurrentTier10SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS37 | Is the CurrentTier11SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS38 | Is the CurrentTier11SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS39 | Is the CurrentTier12SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS40 | Is the CurrentTier12SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS41 | Is the CurrentTier13SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS42 | Is the CurrentTier13SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS43 | Is the CurrentTier14SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS44 | Is the CurrentTier14SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS45 | Is the CurrentTier15SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS46 | Is the CurrentTier15SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS47 | Is the Meter Status attribute supported? | [R2] D.3.2.2.3.1 | MECS1:M | Y  EP:17 |
| MECS48 | Is the UnitofMeasure attribute supported? | [R2] D.3.2.2.4.1 | MECS1:M | Y  EP:17 |
| MECS49 | Is the Multiplier attribute supported? | [R2] D.3.2.2.4.2 | MECS1:O | Y  EP:17 |
| MECS50 | Is the Divisor attribute supported? | [R2] D.3.2.2.4.3 | MECS1:O | Y  EP:17 |
| MECS51 | Is the SummationFormatting attribute supported? | [R2] D.3.2.2.4.4 | MECS1:M | Y  EP:17 |
| MECS52 | Is the DemandFormatting attribute supported? | [R2] D.3.2.2.4.5 | MECS1:O | Y  EP:17 |
| MECS53 | Is the HistoricalConsumptionFormatting attribute supported? | [R2] D.3.2.2.4.6 | MECS1:O | Y  EP:17 |
| MECS54 | Is the MeteringDeviceType attribute supported? | [R2] D.3.2.2.4.7 | MECS1:M | Y  EP:17 |
| MECS54a | Is the MeteringDeviceType: Electric Metering? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54b | Is the MeteringDeviceType: Gas Metering? | [R2] D.3.2.2.4.7 | MECS54:O.1 | Y  EP:17 |
| MECS54c | Is the MeteringDeviceType: Water Metering? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54d | Is the MeteringDeviceType: Pressure Metering? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54e | Is the MeteringDeviceType: Heat Metering? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54f | Is the MeteringDeviceType: Cooling Metering? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54g | Is the MeteringDeviceType: End Use Measurement Device (EUMD)? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54h | Is the MeteringDeviceType: PV Generation Metering? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54i | Is the MeteringDeviceType: Wind Turbine Generation Metering? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54j | Is the MeteringDeviceType: Water Turbine Generation Metering? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54k | Is the MeteringDeviceType: Micro Generation Metering? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54l | Is the MeteringDeviceType: Solar Hot Water Generation Metering? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54m | Is the MeteringDeviceType: Electric Metering Element/Phase1 supported? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54n | Is the MeteringDeviceType: Electric Metering Element/Phase2 supported? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS54o | Is the MeteringDeviceType: Electric Metering Element/Phase3 supported? | [R2] D.3.2.2.4.7 | MECS54:O.1 | N |
| MECS55 | Is the SiteID attribute supported? | [R2] D.3.2.2.4.8 | MECS1:O | N |
| MECS56 | Is the MeterSerialNumber attribute supported? | [R2] D.3.2.2.4.9 | MECS1:O | Y  EP:17 |
| MECS57 | Is the InstantaneousDemand attribute supported? | [R2] D.3.2.2.5.1 | MECS1:O | N |
| MECS58 | Is the CurrentDayConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.2 | MECS1:O | Y  EP:17 |
| MECS59 | Is the CurrentDayConsumptionReceived attribute supported? | [R2] D.3.2.2.5.3 | MECS1:O | N |
| MECS60 | Is the PreviousDayConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.4 | MECS1:O | Y  EP:17 |
| MECS61 | Is the PreviousDayConsumptionReceived attribute supported? | [R2] D.3.2.2.5.5 | MECS1:O | N |
| MECS62 | Is the CurrentPartialProfileIntervalStartTimeDelivered attribute supported? | [R2] D.3.2.2.5.6 | MECS1:O | N |
| MECS63 | Is the CurrentPartialProfileIntervalStartTimeReceived attribute supported? | [R2] D.3.2.2.5.7 | MECS1:O | N |
| MECS64 | Is the CurrentPartialProfileIntervalValueDelivered attribute supported? | [R2] D.3.2.2.5.8 | MECS1:O | N |
| MECS65 | Is the CurrentPartialProfileIntervalValueReceived attribute supported? | [R2] D.3.2.2.5.9 | MECS1:O | N |
| MECS66 | Is the MaxNumberOfPeriodsDelivered attribute supported? | [R2] D.3.2.2.6.1 | MECS1:O | N |
| MECS67 | Is the CurrentDemandDelivered attribute supported? | [R2] D.3.2.2.7.1 | MECS1:O | N |
| MECS68 | Is the DemandLimit attribute supported? | [R2] D.3.2.2.7.2 | MECS1:O | N |
| MECS69 | Is the DemandIntegrationPeriod attribute supported? | [R2] D.3.2.2.7.3 | MECS1:O | N |
| MECS70 | Is the NumberOfDemandSubintervals attribute supported? | [R2] D.3.2.2.7.4 | MECS1:O | N |
| MECS71 | Is the reception of Get Profile command supported? | [R2] D.3.3.3.1.1 | MECS1:O | N |
| MECS72 | Is the reception of Request Mirror Response command supported? | [R2] D.3.3.3.1.2 | MECS1:O | Y  EP:1 |
| MECS73 | Is the reception of Mirror Removed command supported? | [R2] D.3.3.3.1.3 | MECS1:O | Y  EP:17 |
| MECS74 | Is the generation of Get Profile Response command supported? | [R2] D.3.2.3.1.1 | MECS1:O | N |
| MECS75 | Is the generation of Request Mirror command supported? | [R2] D.3.2.3.1.2 | MECS1:O | N |
| MECS76 | Is the generation of Remove Mirror command supported? | [R2] D.3.2.3.1.3 | MECS1:O | N |
| MECS77 | Is the ProfileIntervalPeriod attribute supported? | [R2] D.3.2.2.1.16 | MECS1:O | Y  EP:17 |
| MECS78 | Deprecated[[4]](#footnote-4) |  |  |  |
| MECS79 | Is the PresetReadingTime attribute supported? | [R2] D.3.2.2.1.17 | MECS1:O | N |
| MECS80 | Is the VolumePerReport attribute supported? | [R2] D.3.2.2.1.18 | MECS1:O | N |
| MECS81 | Is the FlowRestriction attribute supported? | [R2] D.3.2.2.1.19 | MECS1:O | N |
| MECS82 | Is the Supply Status attribute supported? | [R2] D.3.2.2.1.20 | MECS1:O | N |
| MECS83 | Is the CurrentDayMaxPressure attribute supported? | [R2] D.3.2.2.5.10 | MECS1:O | N |
| MECS84 | Is the CurrentDayMinPressure attribute supported? | [R2] D.3.2.2.5.12 | MECS1:O | N |
| MECS85 | Is the PreviousDayMaxPressure attribute supported? | [R2] D.3.2.2.5.11 | MECS1:O | N |
| MECS86 | Is the PreviousDayMinPressure attribute supported? | [R2] D.3.2.2.5.13 | MECS1:O | N |
| MECS87 | Is the CurrentDayMaxDemand attribute supported? | [R2] D.3.2.2.5.14 | MECS1:O | N |
| MECS88 | Is the PreviousDayMaxDemand attribute supported? | [R2] D.3.2.2.5.15 | MECS1:O | N |
| MECS89 | Is the Meter Status (Gas) attribute supported? | [R2] D.3.2.2.3.1 | MECS1:O | Y  EP:17 |
| MECS90 | Is the Meter Status (Water) attribute supported? | [R2] D.3.2.2.3.1 | MECS1:O | N |
| MECS91 | Is the RemainingBatteryLife attribute supported? | [R2] D.3.2.2.3.2 | MECS1:O | Y  EP:17 |
| MECS93 | Is the CurrentInletEnergyCarrierSummation attribute supported? | [R2] D.3.2.2.1.21 | MECS1:O[[5]](#footnote-5) | N |
| MECS94 | Is the CurrentOutletEnergyCarrierSummation attribute supported? | [R2] D.3.2.2.1.22 | MECS1:O | N |
| MECS95 | Is the InletTemperature attribute supported? | [R2] D.3.2.2.1.23 | MECS1:O[[6]](#footnote-6) | N |
| MECS96 | Is the OutletTemperature attribute supported? | [R2] D.3.2.2.1.24 | MECS1:O[[7]](#footnote-7) | N |
| MECS97 | Is the ControlTemperature attribute supported? | [R2] D.3.2.2.1.25 | MECS1:O | N |
| MECS98 | Is the CurrentInletEnergyCarrierDemand attribute supported? | [R2] D.3.2.2.1.26 | MECS1:O | N |
| MECS99 | Is the CurrentOutletEnergyCarrierDemand attribute supported? | [R2] D.3.2.2.1.27 | MECS1:O | N |
| MECS100 | Is the EnergyCarrierUnitOfMeasure attribute supported? | [R2] D.3.2.2.4.10 | MECS1:O[[8]](#footnote-8) | N |
| MECS101 | Is the EnergyCarrierSummationFormatting attribute supported? | [R2] D.3.2.2.4.11 | MECS93:M MECS94:M | N |
| MECS102 | Is the EnergyCarrierDemandFormatting attribute supported? | [R2] D.3.2.2.4.12 | MECS98:M MECS99:M MECS107:M MECS108:M MECS109:M MECS110:M MECS111:M MECS112:M | N |
| MECS103 | Is the TemperatureUnitOfMeasure attribute supported? | [R2] D.3.2.2.4.13 | MECS1:O[[9]](#footnote-9) | N |
| MECS104 | Is the TemperatureFormatting attribute supported? | [R2] D.3.2.2.4.14 | MECS1:O[[10]](#footnote-10) | N |
| MECS105 | Is the CurrentMonthMaxDemand attribute supported? | [R2] D.3.2.2.5.16 | MECS1:O | N |
| MECS106 | Is the CurrentYearMaxDemand attribute supported? | [R2] D.3.2.2.5.17 | MECS1:O | N |
| MECS107 | Is the CurrentDayMaxEnergyCarrierDemand attribute supported? | [R2] D.3.2.2.5.18 | MECS1:O | N |
| MECS108 | Is the PreviousDayMaxEnergyCarrierDemand attribute supported? | [R2] D.3.2.2.5.19 | MECS1:O | N |
| MECS109 | Is the CurrentMonthMaxEnergyCarrierDemand attribute supported? | [R2] D.3.2.2.5.20 | MECS1:O | N |
| MECS110 | Is the CurrentMonthMinEnergyCarrierDemand attribute supported? | [R2] D.3.2.2.5.21 | MECS1:O | N |
| MECS111 | Is the CurrentYearMaxEnergyCarrierDemand attribute supported? | [R2] D.3.2.2.5.22 | MECS1:O | N |
| MECS112 | Is the CurrentYearMinEnergyCarrierDemand attribute supported? | [R2] D.3.2.2.5.23 | MECS1:O | N |
| MECS113 | Is the HoursInOperation attribute supported? | [R2] D.3.2.2.3.3 | MECS1:O[[11]](#footnote-11) | N |
| MECS114 | Is the HoursInFault attribute supported? | [R2] D.3.2.2.3.4 | MECS1:O | N |
| MECS115 | Is the Generic AlarmMask attribute supported? | [R2] D.3.2.2.9.2 | MECS1:O | N |
| MECS116 | Is the Electricity AlarmMask attribute supported? | [R2] D.3.2.2.9.2 | MECS1:O | N |
| MECS117 | Is the GenericFlow/Pressure AlarmMask attribute supported? | [R2] D.3.2.2.9.2 | MECS1:O | N |
| MECS118 | Is the Water Specific AlarmMask attribute supported? | [R2] D.3.2.2.9.2 | MECS1:O | N |
| MECS119 | Is the Heating Specific AlarmMask attribute supported? | [R2] D.3.2.2.9.2 | MECS1:O | N |
| MECS120 | Is the Cooling Specific AlarmMask attribute supported? | [R2] D.3.2.2.9.2 | MECS1:O | N |
| MECS121 | Is the Gas Specific AlarmMask attribute supported? | [R2] D.3.2.2.9.2 | MECS1:O | N |
| MECS122 | Is the reception of Request Fast Poll Mode command supported? | [R2] D.3.3.3.1.4 | MECS1:O | N |
| MECS123 | Is the generation of Request Fast Poll Mode Response supported? | [R2] D.3.2.3.1.4 | MECS1:O | N |
| MECS124 | Is the Mapping of the Status Attribute (Electricity) supported? | [R2]/D.3.2.2.3.1 Table D.16 | MECS54a:M | N |
| MECS125 | Is the Meter Status Attribute (Gas) mapping supported? | [R2]/D.3.2.2.3.1 Table D.17 | MECS54b:M | Y  EP:17 |
| MECS126 | Is the Meter Status Attribute (Water) mapping supported? | [R2] D.3.2.2.3.1 Table D.18 | MECS54c:M | N |
| MECS127 | RESERVED |  |  | N |
| MECS128 | Is the Meter Status Attribute (Heat and Cooling) mapping? | [R2] D.3.2.2.3.1 Table D.19 | MECS54e:M MECS54f:M | N |
| MECS129 | RESERVED |  |  | N |
| MECS130 | Does the device generate fragmented Get Profile Response commands? |  | MECS74:O | N |
| MECS131 | Is the *PreviousBlockPeriodConsumptionDelivered* attribute supported? | [R2] D.3.2.2.1.28 | MECS132:O  MECS133:O | N |
| MECS132 | Does the device support Block Charging only? | [R2] D.4.4.3.2 | MECS1:O | N |
| MECS133 | Does the device support Block/TOU Combination Charging? | [R2] D.4.4.3.3 | MECS1:O | N |
| MECS134 | Are any Block Information ‘No Tier’ attributes (0x00 to 0x0F) supported? | [R2] D.3.2.2.8 | MECS132:M | Y  EP:17 |
| MECS135 | Are any Block Information ‘TierxBlocky’ attributes (0x10 to 0xFF) supported | [R2] D.3.2.2.8 | MECS133:O | N |
| MECS136 | Is the CurrentBlockPeriodConsumptionReceived attribute supported? | [R2] D.3.2.2.1.29 | MECS1:O | N |
| MECS137 | Is the CurrentBlockReceived attribute supported? | [R2] D.3.2.2.1.30 | MECS1:O | N |
| MECS138 | Is the DFTSummationReceived attribute supported? | [R2] D.3.2.2.1.31 | MECS1:O | N |
| MECS139 | Is the ActiveRegisterTierDelivered attribute supported? | [R2] D.3.2.2.1.32 | MECS1:O | N |
| MECS140 | Is the ActiveRegisterTierReceived attribute supported? | [R2] D.3.2.2.1.33 | MECS1:O | N |
| MECS141 | Is the LastBlockSwitchTime attribute supported? | [R2] D.3.2.2.1.34 | MECS1:O | N |
| MECS142 | Is the CurrentTier16SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS143 | Is the CurrentTier16SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS144 | Is the CurrentTier17SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS145 | Is the CurrentTier17SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS146 | Is the CurrentTier18SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS147 | Is the CurrentTier18SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS148 | Is the CurrentTier19SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS149 | Is the CurrentTier19SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS150 | Is the CurrentTier20SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS151 | Is the CurrentTier20SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS152 | Is the CurrentTier21SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS153 | Is the CurrentTier21SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS154 | Is the CurrentTier22SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS155 | Is the CurrentTier22SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS156 | Is the CurrentTier23SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS157 | Is the CurrentTier23SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS158 | Is the CurrentTier24SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS159 | Is the CurrentTier24SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS160 | Is the CurrentTier25SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS161 | Is the CurrentTier25SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS162 | Is the CurrentTier26SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS163 | Is the CurrentTier26SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS164 | Is the CurrentTier27SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS165 | Is the CurrentTier27SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS166 | Is the CurrentTier28SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS167 | Is the CurrentTier28SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS168 | Is the CurrentTier29SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS169 | Is the CurrentTier29SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS170 | Is the CurrentTier30SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS171 | Is the CurrentTier30SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS172 | Is the CurrentTier31SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS173 | Is the CurrentTier31SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS174 | Is the CurrentTier32SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS175 | Is the CurrentTier32SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS176 | Is the CurrentTier33SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS177 | Is the CurrentTier33SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS178 | Is the CurrentTier34SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS179 | Is the CurrentTier34SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS180 | Is the CurrentTier35SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS181 | Is the CurrentTier35SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS182 | Is the CurrentTier36SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS183 | Is the CurrentTier36SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS184 | Is the CurrentTier37SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS185 | Is the CurrentTier37SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS186 | Is the CurrentTier38SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS187 | Is the CurrentTier38SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS188 | Is the CurrentTier39SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS189 | Is the CurrentTier39SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS190 | Is the CurrentTier40SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS191 | Is the CurrentTier40SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS192 | Is the CurrentTier41SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS193 | Is the CurrentTier41SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS194 | Is the CurrentTier42SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS195 | Is the CurrentTier42SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS196 | Is the CurrentTier43SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS197 | Is the CurrentTier43SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS198 | Is the CurrentTier44SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS199 | Is the CurrentTier44SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS200 | Is the CurrentTier45SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS201 | Is the CurrentTier45SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS202 | Is the CurrentTier46SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS203 | Is the CurrentTier46SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS204 | Is the CurrentTier47SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS205 | Is the CurrentTier47SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS206 | Is the CurrentTier48SummationDelivered attribute supported? | [R2] D.3.2.2.2.1 | MECS1:O | N |
| MECS207 | Is the CurrentTier48SummationReceived attribute supported? | [R2] D.3.2.2.2.2 | MECS1:O | N |
| MECS208 | Is the CPP1SummationDelivered attribute supported? | [R2] D.3.2.2.2.3 | MECS1:O | N |
| MECS209 | Is the CPP2SummationDelivered attribute supported? | [R2] D.3.2.2.2.4 | MECS1:O | N |
| MECS210 | Is the Extended Status attribute supported? | [R2] D.3.2.2.3.5 | MECS1:M | N |
| MECS211 | Is the RemainingBatteryLifeinDays attribute supported? | [R2] D.3.2.2.3.6 | MECS1:O | Y  EP:17 |
| MECS212 | Is the CurrentMeterID attribute supported? | [R2] D.3.2.2.3.7 | MECS1:O | N |
| MECS213 | Is the AmbientConsumptionIndicator  attribute supported? | [R2] D.3.2.2.3.8 | MECS1:O | N |
| MECS214 | Is the ModuleSerialNumber  attribute supported? | [R2] D.3.2.2.4.15 | MECS1:O | N |
| MECS215 | Is the OperatingTariffLabelDelivered  attribute supported? | [R2] D.3.2.2.4.16 | MECS1:O | N |
| MECS216 | Is the OperatingTariffLabelReceived attribute supported? | [R2] D.3.2.2.4.17 | MECS1:O | N |
| MECS217 | Is the CustomerIDNumber  attribute supported? | [R2] D.3.2.2.4.18 | MECS1:O | N |
| MECS218 | Is the AlternativeUnitofMeasure attribute supported? | [R2] D.3.2.2.4.19 | MECS1:O | N |
| MECS219 | Is the AlternativeDemandFormatting  attribute supported? | [R2] D.3.2.2.4.20 | MECS1:O | N |
| MECS220 | Is the AlternativeConsumptionFormatting attribute supported? | [R2] D.3.2.2.4.21 | MECS1:O | N |
| MECS221 | Is the PreviousDay2ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.24 | MECS1:O | Y  EP:17 |
| MECS222 | Is the PreviousDay2ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.25 | MECS1:O | N |
| MECS223 | Is the PreviousDay3ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.24 | MECS1:O | Y  EP:17 |
| MECS224 | Is the PreviousDay3ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.25 | MECS1:O | N |
| MECS225 | Is the PreviousDay4ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.24 | MECS1:O | Y  EP:17 |
| MECS226 | Is the PreviousDay4ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.25 | MECS1:O | N |
| MECS227 | Is the PreviousDay5ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.24 | MECS1:O | Y  EP:17 |
| MECS228 | Is the PreviousDay5ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.25 | MECS1:O | N |
| MECS229 | Is the PreviousDay6ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.24 | MECS1:O | Y  EP:17 |
| MECS230 | Is the PreviousDay6ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.25 | MECS1:O | N |
| MECS231 | Is the PreviousDay7ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.24 | MECS1:O | Y  EP:17 |
| MECS232 | Is the PreviousDay7ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.25 | MECS1:O | N |
| MECS233 | Is the PreviousDay8ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.24 | MECS1:O | Y  EP:17 |
| MECS234 | Is the PreviousDay8ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.25 | MECS1:O | N |
| MECS235 | Is the CurrentWeekConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.26 | MECS1:O | Y  EP:17 |
| MECS236 | Is the CurrentWeekConsumptionReceived attribute supported? | [R2] D.3.2.2.5.27 | MECS1:O | N |
| MECS237 | Is the PreviousWeekConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.28 | MECS1:O | Y  EP:17 |
| MECS238 | Is the PreviousWeekConsumptionReceived attribute supported? | [R2] D.3.2.2.5.29 | MECS1:O | N |
| MECS239 | Is the PreviousWeek2ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.28 | MECS1:O | Y  EP:17 |
| MECS240 | Is the PreviousWeek2ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.29 | MECS1:O | N |
| MECS241 | Is the PreviousWeek3ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.28 | MECS1:O | Y  EP:17 |
| MECS242 | Is the PreviousWeek3ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.29 | MECS1:O | N |
| MECS243 | Is the PreviousWeek4ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.28 | MECS1:O | Y  EP:17 |
| MECS244 | Is the PreviousWeek4ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.29 | MECS1:O | N |
| MECS245 | Is the PreviousWeek5ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.28 | MECS1:O | Y  EP:17 |
| MECS246 | Is the PreviousWeek5ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.29 | MECS1:O | N |
| MECS247 | Is the CurrentMonthConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.30 | MECS1:O | Y  EP:17 |
| MECS248 | Is the CurrentMonthConsumptionReceived attribute supported? | [R2] D.3.2.2.5.31 | MECS1:O | N |
| MECS249 | Is the PreviousMonthConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS250 | Is the PreviousMonthConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS251 | Is the PreviousMonth2ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS252 | Is the PreviousMonth2ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS253 | Is the PreviousMonth3ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS254 | Is the PreviousMonth3ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS255 | Is the PreviousMonth4ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS256 | Is the PreviousMonth4ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS257 | Is the PreviousMonth5ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS258 | Is the PreviousMonth5ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS259 | Is the PreviousMonth6ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS260 | Is the PreviousMonth6ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS261 | Is the PreviousMonth7ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS262 | Is the PreviousMonth7ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS263 | Is the PreviousMonth8ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS264 | Is the PreviousMonth8ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS265 | Is the PreviousMonth9ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS266 | Is the PreviousMonth9ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS267 | Is the PreviousMonth10ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS268 | Is the PreviousMonth10ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS269 | Is the PreviousMonth11ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS270 | Is the PreviousMonth11ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS271 | Is the PreviousMonth12ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS272 | Is the PreviousMonth12ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS273 | Is the PreviousMonth13ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.32 | MECS1:O | Y  EP:17 |
| MECS274 | Is the PreviousMonth13ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.33 | MECS1:O | N |
| MECS275 | Is the HistoricalFreezeTime  attribute supported? | [R2] D.3.2.2.5.34 | MECS1:O | Y  EP:17 |
| MECS276 | Is the DemandLimitArm Duration attribute supported? | [R2] D.3.2.2.7.5 | MECS1:O | N |
| MECS277 | Is the LoadLimitSupplyState attribute supported? | [R2] D.3.2.2.7.6 | MECS1:O | Y  EP:17 |
| MECS278 | Is the LoadLimitCounter attribute supported? | [R2] D.3.2.2.7.7 | MECS1:O | N |
| MECS279 | Is the SupplyTamperState attribute supported? | [R2] D.3.2.2.7.8 | MECS1:O | Y  EP:17 |
| MECS280 | Is the SupplyDepletionState attribute supported? | [R2] D.3.2.2.7.9 | MECS1:O | Y  EP:17 |
| MECS281 | Is the SupplyUncontrolled FlowState attribute supported? | [R2] D.3.2.2.7.10 | MECS1:O | Y  EP:17 |
| MECS282 | Is the Extended Generic AlarmMask attribute supported? | [R2] D.3.2.2.9.2 | MECS1:O | N |
| MECS283 | Is the Manufacturer AlarmMask attribute supported? | [R2] D.3.2.2.9.2 | MECS1:O | N |
| MECS284 | Are any Block Information ‘No Tier’  Received attributes (0x00 to 0x0F) supported? | [R2] D.3.2.2.10 | MECS132:M | Y  EP:17 |
| MECS285 | Are any Block Information ‘TierxBlocky’ Received attributes (0x10 to 0xFF) supported | [R2] D.3.2.2.10 | MECS133:O | N |
| MECS286 | Is the BillToDateDelivered  attribute supported? | [R2] D.3.2.2.11.1 | MECS1:O | N |
| MECS287 | Is the BillToDateTimeStampDelivered  attribute supported? | [R2] D.3.2.2.11.2 | MECS1:O | N |
| MECS288 | Is the ProjectedBillDelivered attribute supported? | [R2] D.3.2.2.11.3 | MECS1:O | N |
| MECS289 | Is the ProjectedBillTimeStampDelivered attribute supported? | [R2] D.3.2.2.11.4 | MECS1:O | N |
| MECS290 | Is the BillDeliveredTrailingDigit attribute supported? | [R2] D.3.2.2.11.5 | MECS1:O | N |
| MECS291 | Is the BillToDateReceived attribute supported? | [R2] D.3.2.2.11.6 | MECS1:O | N |
| MECS292 | Is the BillToDateTimeStampReceived attribute supported? | [R2] D.3.2.2.11.7 | MECS1:O | N |
| MECS293 | Is the ProjectedBillReceived attribute supported? | [R2] D.3.2.2.11.8 | MECS1:O | N |
| MECS294 | Is the ProjectedBillTimeStampReceived attribute supported? | [R2] D.3.2.2.11.9 | MECS1:O | N |
| MECS295 | Is the BillReceivedTrailingDigit attribute supported? | [R2] D.3.2.2.11.10 | MECS1:O | N |
| MECS296 | Is the ProposedChangeSupplyImplementationTime attribute supported? | [R2] D.3.2.2.12.1 | MECS1:O | N |
| MECS297 | Is the ProposedChangeSupplyStatus attribute supported? | [R2] D.3.2.2.12.2 | MECS1:O | Y  EP:17 |
| MEC298 | Is the Uncontrolled Flow Threshold attribute supported? | [R2] D.3.2.2.12.3 | MECS1:O | Y  EP:17 |
| MEC299 | Is the Uncontrolled Flow Threshold Unit of Measure attribute supported? | [R2] D.3.2.2.12.4 | MECS1:O | Y  EP:17 |
| MEC300 | Is the Uncontrolled Flow Multiplier attribute supported? | [R2] D.3.2.2.12.5 | MECS1:O | Y  EP:17 |
| MEC300 | Is the Uncontrolled Flow Divisor attribute supported? | [R2] D.3.2.2.12.6 | MECS1:O | Y  EP:17 |
| MEC301 | Is the Flow Stabilisation Period attribute supported? | [R2] D.3.2.2.12.7 | MECS1:O | Y  EP:17 |
| MEC302 | Is the Flow Measurement Period attribute supported? | [R2] D.3.2.2.12.8 | MECS1:O | Y  EP:17 |
| MECS303 | Is the AlternativeInstantaneousDemand attribute supported? | [R2] D.3.2.2.13.1 | MECS1:O | N |
| MECS304 | Is the CurrentDay  AlternativeConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.2 | MECS1:O | N |
| MECS305 | Is the CurrentDay  AlternativeConsumptionReceived attribute supported? | [R2] D.3.2.2.13.3 | MECS1:O | N |
| MECS306 | Is the PreviousDay  AlternativeConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.4 | MECS1:O | N |
| MECS307 | Is the PreviousDay  AlternativeConsumptionReceived attribute supported? | [R2] D.3.2.2.13.5 | MECS1:O | N |
| MECS308 | Is the CurrentAlternativePartialProfile IntervalStartTimeDelivered  attribute supported? | [R2] D.3.2.2.13.6 | MECS1:O | N |
| MECS309 | Is the CurrentAlternativePartialProfile  IntervalStartTimeReceived  attribute supported? | [R2] D.3.2.2.13.7 | MECS1:O | N |
| MECS310 | Is the CurrentAlternativePartialProfile  IntervalValueDelivered attribute supported? | [R2] D.3.2.2.13.8 | MECS1:O | N |
| MECS311 | Is the CurrentAlternativePartialProfile  IntervalValueReceived attribute supported? | [R2] D.3.2.2.13.9 | MECS1:O | N |
| MECS312 | Is the CurrentDayAlternativeMaxPressure attribute supported? | [R2] D.3.2.2.13.10 | MECS1:O | N |
| MECS313 | Is the PreviousDayAlternativeMaxPressure attribute supported? | [R2] D.3.2.2.13.11 | MECS1:O | N |
| MECS314 | Is the CurrentDayAlternativeMinPressure attribute supported? | [R2] D.3.2.2.13.12 | MECS1:O | N |
| MECS315 | Is the PreviousAlternativeDayMinPressure attribute supported? | [R2] D.3.2.2.13.13 | MECS1:O | N |
| MECS316 | Is the CurrentDayAlternativeMaxDemand attribute supported? | [R2] D.3.2.2.13.14 | MECS1:O | N |
| MECS317 | Is the PreviousDayAlternativeMaxDemand attribute supported? | [R2] D.3.2.2.13.15 | MECS1:O | N |
| MECS318 | Is the CurrentMonthAlternativeMaxDemand attribute supported? | [R2] D.3.2.2.13.16 | MECS1:O | N |
| MECS319 | Is the CurrentYearAlternativeMaxDemand attribute supported? | [R2] D.3.2.2.13.17 | MECS1:O | N |
| MECS320 | Is the PreviousDay2Alternative  ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.18 | MECS1:O | Y  EP:17 |
| MECS321 | Is the PreviousDay2Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.19 | MECS1:O | N |
| MECS322 | Is the PreviousDay3Alternative  ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.18 | MECS1:O | Y  EP:17 |
| MECS323 | Is the PreviousDay3Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.19 | MECS1:O | N |
| MECS324 | Is the PreviousDay4Alternative  ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.18 | MECS1:O | Y  EP:17 |
| MECS325 | Is the PreviousDay4Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.19 | MECS1:O | N |
| MECS326 | Is the PreviousDay5Alternative  ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.18 | MECS1:O | Y  EP:17 |
| MECS327 | Is the PreviousDay5Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.19 | MECS1:O | N |
| MECS328 | Is the PreviousDay6Alternative  ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.18 | MECS1:O | Y  EP:17 |
| MECS329 | Is the PreviousDay6Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.19 | MECS1:O | N |
| MECS330 | Is the PreviousDay7Alternative  ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.18 | MECS1:O | Y  EP:17 |
| MECS331 | Is the PreviousDay7Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.19 | MECS1:O | N |
| MECS332 | Is the PreviousDay8Alternative  ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.18 | MECS1:O | Y  EP:17 |
| MECS333 | Is the PreviousDay8Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.19 | MECS1:O | N |
| MECS334 | Is the CurrentWeek Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.20 | MECS1:O | Y  EP:17 |
| MECS335 | Is the CurrentWeek Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.21 | MECS1:O | N |
| MECS336 | Is the PreviousWeek Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.22 | MECS1:O | Y  EP:17 |
| MECS337 | Is the PreviousWeekAlternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.23 | MECS1:O | N |
| MECS338 | Is the PreviousWeek2Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.22 | MECS1:O | Y  EP:17 |
| MECS339 | Is the PreviousWeek2Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.23 | MECS1:O | N |
| MECS340 | Is the PreviousWeek3Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.22 | MECS1:O | Y  EP:17 |
| MECS341 | Is the PreviousWeek3Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.23 | MECS1:O | N |
| MECS342 | Is the PreviousWeek4Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.22 | MECS1:O | Y  EP:17 |
| MECS343 | Is the PreviousWeek4Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.23 | MECS1:O | N |
| MECS344 | Is the PreviousWeek5Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.22 | MECS1:O | Y  EP:17 |
| MECS345 | Is the PreviousWeek5Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.23 | MECS1:O | N |
| MECS346 | Is the CurrentMonthAlternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.24 | MECS1:O | Y  EP:17 |
| MECS347 | Is the CurrentMonthAlternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.25 | MECS1:O | N |
| MECS348 | Is the PreviousMonthAlternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.26 | MECS1:O | Y  EP:17 |
| MECS349 | Is the PreviousMonthAlternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.27 | MECS1:O | N |
| MECS350 | Is the PreviousMonth2Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.26 | MECS1:O | Y  EP:17 |
| MECS351 | Is the PreviousMonth2Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.27 | MECS1:O | N |
| MECS352 | Is the PreviousMonth3Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.26 | MECS1:O | Y  EP:17 |
| MECS353 | Is the PreviousMonth3Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.27 | MECS1:O | N |
| MECS356 | Is the PreviousMonth4Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.26 | MECS1:O | Y  EP:17 |
| MECS357 | Is the PreviousMonth4Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.27 | MECS1:O | N |
| MECS358 | Is the PreviousMonth5Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.26 | MECS1:O | Y  EP:17 |
| MECS359 | Is the PreviousMonth5Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.27 | MECS1:O | N |
| MECS360 | Is the PreviousMonth6Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.26 | MECS1:O | Y  EP:17 |
| MECS361 | Is the PreviousMonth6Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.27 | MECS1:O | N |
| MECS362 | Is the PreviousMonth7Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.26 | MECS1:O | Y  EP:17 |
| MECS363 | Is the PreviousMonth7Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.27 | MECS1:O | N |
| MECS364 | Is the PreviousMonth8Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.26 | MECS1:O | Y  EP:17 |
| MECS365 | Is the PreviousMonth8Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.27 | MECS1:O | N |
| MECS366 | Is the PreviousMonth9Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.26 | MECS1:O | Y  EP:17 |
| MECS367 | Is the PreviousMonth9Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.27 | MECS1:O | N |
| MECS368 | Is the PreviousMonth10Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.26 | MECS1:O | Y  EP:17 |
| MECS369 | Is the PreviousMonth10Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.27 | MECS1:O | N |
| MECS370 | Is the PreviousMonth11Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.26 | MECS1:O | Y  EP:17 |
| MECS371 | Is the PreviousMonth11Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.27 | MECS1:O | N |
| MECS372 | Is the PreviousMonth12Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.5.26 | MECS1:O | Y  EP:17 |
| MECS373 | Is the PreviousMonth12Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.13.27 | MECS1:O | N |
| MECS374 | Is the PreviousMonth13Alternative ConsumptionDelivered attribute supported? | [R2] D.3.2.2.13.26 | MECS1:O | Y  EP:17 |
| MECS375 | Is the PreviousMonth13Alternative ConsumptionReceived attribute supported? | [R2] D.3.2.2.5.27 | MECS1:O | N |
| MECS376 | Is the reception of ScheduleSnapShot command supported? | [R2] D.3.3.3.1.5 | MECS1:O | N |
| MECS377 | Is the reception of TakeSnapshot command supported? | [R2] D.3.3.3.1.6 | MECS1:O | N |
| MECS378 | Is the reception of GetSnapshot command supported? | [R2] D.3.3.3.1.7 | MECS1:O | N |
| MECS379 | Is the reception of StartSampling command supported? | [R2] D.3.3.3.1.8 | MECS1:O | N |
| MECS380 | Is the reception of GetSampledData command supported? | [R2] D.3.3.3.1.9 | MECS1:O | N |
| MECS381 | Is the reception of MirrorReportAttributeResponse command supported? | [R2] D.3.3.3.1.10 | MECS1:O | N |
| MECS382 | Is the reception of ResetLoad Limit Counter command supported? | [R2] D.3.3.3.1.11 | MECS1:O | N |
| MECS383 | Is the reception of Change Supply command supported? | [R2] D.3.3.3.1.12 | MECS1:O | N |
| MECS384 | Is the reception of Local Change Supply command supported? | [R2] D.3.3.3.1.13 | MECS1:O | N |
| MECS385 | Is the reception of SetSupplyStatus command supported? | [R2] D.3.3.3.1.14 | MECS1:O | N |
| MECS386 | Is the reception of SetUncontrolledFlowThreshold command supported? | [R2] D.3.3.3.1.15 | MECS1:O | N |
| MECS387 | Is the generation of ScheduleSnapShotResponse command supported? | [R2] D.3.2.3.1.5 | MECS1:O | N |
| MECS388 | Is the generation of TakeSnapshotResponse command supported? | [R2] D.3.2.3.1.6 | MECS1:O | N |
| MECS389 | Is the generation of Publish Snapshot command supported? | [R2] D.3.2.3.1.7 | MECS1:O | N |
| MECS390 | Is the generation of GetSampledDataResponse command supported? | [R2] D.3.2.3.1.8 | MECS1:O | N |
| MECS391 | Is the generation of ConfigureMirror command supported? | [R2] D.3.2.3.1.9 | MECS1:O | N |
| MECS392 | Is the generation of ConfigureNotificationScheme command supported? | [R2] D.3.2.3.1.10 | MECS1:O | N |
| MECS393 | Is the generation of ConfigureNotificationFlags command supported? | [R2] D.3.2.3.1.11 | MECS1:O | N |
| MECS394 | Is the generation of GetNotified Message command supported? | [R2] D.3.2.3.1.12 | MECS1:O | N |
| MECS395 | Is the generation of Supply Status Response command supported? | [R2] D.3.2.3.1.13 | MECS1:O | N |
| MECS396 | Is the generation of StartSamplingResponse command supported? | [R2] D.3.2.3.1.14 | MECS1:O | N |

Table – Metering cluster client capabilities

| Item number | Item description | | Reference | Status | Support |
| --- | --- | --- | --- | --- | --- |
| MECC1 | Is the Metering Cluster supported as a client? | | [R2]/D.3 | O | Y  EP:1/17 |
| MECC2 | | Is the reception of Get Profile Response command supported? | [R2]/D.3.2.3.1.1 | MECC1:O | Y  EP:17 |
| MECC3 | | Is the reception of Request Mirror command supported? | [R2]/D.3.2.3.1.2 | MECC1:O | Y  EP:1 |
| MECC4 | | Is the reception of Remove Mirror command supported? | [R2]/D.3.2.3.1.3 | MECC1:O | Y  EP:17 |
| MECC5 | | Is the generation of Get Profile command supported? | [R2]/D.3.3.3.1.1 | MECC1:O | Y  EP:17 |
| MECC6 | | Is the generation of Request Mirror Response command supported? | [R2]/D.3.3.3.1.2 | MECC1:O | Y  EP:1 |
| MECC7 | | Is the generation of Mirror Removed command supported? | [R2]/D.3.3.3.1.3 | MECC1:O | Y  EP:17 |
| MECC8 | | Is the reception of Request Fast Poll Mode Response command supported? | [R2]/D.3.2.3.1.4 | MECC1:O | N |
| MECC9 | | Is the generation of Request Fast Poll Mode command supported? | [R2]/D.3.3.3.1.4 | MECC1:O | N |
| MECC10 | | Does the device support reception of fragmented Get Profile Response commands? |  | MECC5:M | Y  EP:17 |
| MECC11 | | Is the FunctionalNotificationFlags attribute supported? | [R2]/D.3.3.2.1.1 | MECC1:O | Y  EP:17 |
| MECC12 | | Is the NotificationFlags2 attribute supported? | [R2]/D.3.3.2.1.2 | MECC1:O | Y  EP:17 |
| MECC13 | | Is the NotificationFlags3 attribute supported? | [R2]/D.3.3.2.1.2 | MECC1:O | Y  EP:17 |
| MECC14 | | Is the NotificationFlags4 attribute supported? | [R2]/D.3.3.2.1.2 | MECC1:O | Y  EP:17 |
| MECC15 | | Is the NotificationFlags5 attribute supported? | [R2]/D.3.3.2.1.2 | MECC1:O | Y  EP:17 |
| MECC16 | | Is the NotificationFlags6 attribute supported? | [R2]/D.3.3.2.1.2 | MECC1:O | Y  EP:17 |
| MECC17 | | Is the NotificationFlags7 attribute supported? | [R2]/D.3.3.2.1.2 | MECC1:O | Y  EP:17 |
| MECC18 | | Is the NotificationFlags8 attribute supported? | [R2]/D.3.3.2.1.2 | MECC1:O | Y  EP:17 |
| MECC22 | | Is the reception of ScheduleSnapShotResponse command supported? | [R2]/D.3.2.3.1.5 | MECC1:O | Y  EP:17 |
| MECC23 | | Is the reception of TakeSnapshotResponse command supported? | [R2]/D.3.2.3.1.6 | MECC1:O | N |
| MECC24 | | Is the reception of Publish Snapshot command supported? | [R2]/D.3.2.3.1.7 | MECC1:O | Y  EP:17 |
| MECC25 | | Is the reception of GetSampledDataResponse command supported? | [R2]/D.3.2.3.1.8 | MECC1:O | Y  EP:17 |
| MECC26 | | Is the reception of ConfigureMirror command supported? | [R2]/D.3.2.3.1.9 | MECC1:O | Y  EP:17 |
| MECC27 | | Is the reception of ConfigureNotificationScheme command supported? | [R2]/D.3.2.3.1.10 | MECC1:O | Y  EP:17 |
| MECC28 | | Is the reception of ConfigureNotificationFlags command supported? | [R2]/D.3.2.3.1.11 | MECC1:O | Y  EP:17 |
| MECC29 | | Is the reception of GetNotifiedMessage command supported? | [R2]/D.3.2.3.1.12 | MECC1:O | Y  EP:17 |
| MECC30 | | Is the reception of Supply Status Response command supported? | [R2]/D.3.2.3.1.13 | MECC1:O | Y  EP:17 |
| MECC31 | | Is the reception of StartSamplingResponse command supported? | [R2]/D.3.2.3.1.14 | MECC1:O | Y  EP:17 |
| MECC32 | | Is the generation of ScheduleSnapShot command supported? | [R2]/D.3.3.3.1.5 | MECC1:O | Y  EP:17 |
| MECC33 | | Is the generation of TakeSnapshot command supported? | [R2]/D.3.3.3.1.6 | MECC1:O | N |
| MECC34 | | Is the generation of GetSnapshot command supported? | [R2]/D.3.3.3.1.7 | MECC1:O | Y  EP:17 |
| MECC35 | | Is the generation of StartSampling command supported? | [R2]/D.3.3.3.1.8 | MECC1:O | Y  EP:17 |
| MECC36 | | Is the generation of GetSampledData command supported? | [R2]/D.3.3.3.1.9 | MECC1:O | Y  EP:17 |
| MECC37 | | Is the generation of MirrorReportAttributeResponse command supported? | [R2]/D.3.3.3.1.10 | MECC1:O | Y  EP:17 |
| MECC38 | | Is the generation of ResetLoadLimitCounter command supported? | [R2]/D.3.3.3.1.11 | MECC1:O | N |
| MECC39 | | Is the generation of Change Supply command supported? | [R2]/D.3.3.3.1.12 | MECC1:O | Y  EP:17 |
| MECC40 | | Is the generation of Local Change Supply command supported? | [R2]/D.3.3.3.1.13 | MECC1:O | N |
| MECC41 | | Is the generation of SetSupplyStatus command supported? | [R2]/D.3.3.3.1.14 | MECC1:O | Y  EP:17 |
| MECC42 | | Is the generation of SetUncontrolledFlowThreshold command supported? | [R2]/D.3.3.3.1.15 | MECC1:O | Y  EP:17 |

### Price Cluster attributes and functions

Table – Price cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| PCS1 | Is the Price Cluster supported as a server? | [R2]/D.4 | O | Y  EP:1 |
| PCS2 | Is the Tier1PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS3 | Is the Tier2PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS4 | Is the Tier3PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS5 | Is the Tier4PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS6 | Is the Tier5PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS7 | Is the Tier6PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS8 | Is the reception of Get Current Price command supported? | [R2]/D.4.2.3.2 | PCS1:M | Y  EP:1 |
| PCS9 | Is the reception of Get Scheduled Prices command supported? | [R2]/D.4.2.3.3 | PCS1:O | Y  EP:1 |
| PCS10 | Is the generation of Publish Price command supported? | [R2]/D.4.2.4.1 | PCS1:M | Y  EP:1 |
| PCS11 | Is the Tier7PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS12 | Is the Tier8PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS13 | Is the Tier9PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS14 | Is the Tier10PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS15 | Is the Tier11PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS16 | Is the Tier12PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS17 | Is the Tier13PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS18 | Is the Tier14PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS19 | Is the Tier15PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS20 | Are any Block Threshold attributes 0x0100 to 0x010F supported? | [R2]/D.4.2.2.2.1 | PCS42:M  PCS43:M | N |
| PCS25 | Is the reception of Price Acknowledgement command supported? | [R2]/D.4.2.3.4 | PCS1:O | Y  EP:1 |
| PCS26 | Is the generation of Publish Block Period command supported? | [R2]/D.4.2.4.2 | PCS42:O  PCS43:O | N |
| PCS27 | Is the reception of Get Block Period(s) command support? | [R2]/D.4.2.3.5 | PCS42:O  PCS43:O | N |
| PCS28 | Is the Commodity Type (server) attribute supported? | [R2]/D.4.2.2.4.1 | PCS1:O | Y  EP:1 |
| PCS29 | Is the Standing Charge attribute supported? | [R2]/D.4.2.2.4.2 | PCS1:O | Y  EP:1 |
| PCS30 | Is the *ConversionFactor* attribute supported? | [R2]/D.4.2.2.4.3 | PCS1:O | Y  EP:1 |
| PCS31 | Is the *ConversionFactorTrailingDigit* supported? | [R2]/D.4.2.2.4.4 | PCS1:O | Y  EP:1 |
| PCS32 | Is the *CalorificValue* attribute supported? | [R2]/D.4.2.2.4.5 | PCS1:O | Y  EP:1 |
| PCS33 | Is the *CalorificValueUnit* attribute supported? | [R2]/D.4.2.2.4.6 | PCS1:O | Y  EP:1 |
| PCS34 | Is the *CalorificValueTrailingDigit* attribute supported? | [R2]/D.4.2.2.4.7 | PCS1:O | Y  EP:1 |
| PCS36 | Is the reception of the *GetConversionFactor* command supported? | [R2]/D.4.2.3.6 | PCS1:O | Y  EP:1 |
| PCS37 | Is the reception of the *GetCalorificValue* command supported? | [R2]/D.4.2.3.7 | PCS1:O | Y  EP:1 |
| PCS38 | Is the generation of the *Publish Conversion Factor* command supported? | [R2]/D.4.2.4.3 | PCS1:O | Y  EP:1 |
| PCS39 | Is the generation of the *Publish Calorific Value* command supported? | [R2]/D.4.2.4.4 | PCS1:O | Y  EP:1 |
| PCS40 | Is the *CurrentBillingPeriodStart* attribute supported? | [R2]/D.4.2.2.8.1 | PCS1:O | Y  EP:1 |
| PCS41 | Is the *CurrentBillingPeriodDuration* attribute supported? | [R2]/D.4.2.2.8.2 | PCS1:O | Y  EP:1 |
| PCS42 | Does the device support Block Charging only? | [R2]/D.4.4.3.2 | PCS1:O | N |
| PCS43 | Does the device support Block/TOU Combination Charging ? | [R2]/D.4.4.3.3 | PCS1:O | N |
| PCS44 | Is the Block Period (Delivered) attribute set supported? | [R2]/D.4.2.2.3 | PCS42:O PCS43:O | N |
| PCS45 | Are any Block Price Information (Delivered) ‘No Tier’ attributes (0x0400 to 0x040F) supported? | [R2]/D.4.2.2.5 | PCS42:M | N |
| PCS46 | Are any Block Price Information (Delivered) ‘TierxBlocky’ attributes (0x0410 to 0x04FF) supported? | [R2]/D.4.2.2.5 | PCS43:O | N |
| PCS47 | Is the Tier16PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS48 | Is the Tier17PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS49 | Is the Tier18PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS50 | Is the Tier19PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS51 | Is the Tier20PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS52 | Is the Tier21PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS53 | Is the Tier22PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS54 | Is the Tier23PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS55 | Is the Tier24PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS56 | Is the Tier25PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS57 | Is the Tier26PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS58 | Is the Tier27PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS59 | Is the Tier28PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS60 | Is the Tier29PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS61 | Is the Tier30PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS62 | Is the Tier31PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS63 | Is the Tier32PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS64 | Is the Tier33PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS65 | Is the Tier34PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS66 | Is the Tier35PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS67 | Is the Tier36PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS68 | Is the Tier37PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS69 | Is the Tier38PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS70 | Is the Tier39PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS71 | Is the Tier40PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS72 | Is the Tier41PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS73 | Is the Tier42PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS74 | Is the Tier43PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS75 | Is the Tier44PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS76 | Is the Tier45PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS77 | Is the Tier46PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS78 | Is the Tier47PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS79 | Is the Tier48PriceLabel attribute supported? | [R2]/D.4.2.2.1 | PCS1:O | N |
| PCS80 | Is the BlockThresholdCount attribute supported? | [R2]/D.4.2.2.2.2 | PCS1:O | N |
| PCS81 | Are any TierNBlockMThreshold attributes supported? | [R2]/D.4.2.2.2.3 | PCS43:O | N |
| PCS82 | Are any TierNBlockThresholdCount attributes supported? | [R2]/D.4.2.2.2.4 | PCS43:O | N |
| PCS83 | Are any PriceTierN attributes supported? | [R2]/D.4.2.2.6.1 | PCS1:O | N |
| PCS84 | Is the CPP1 Price attribute supported? | [R2]/D.4.2.2.6.2 | PCS1:O | N |
| PCS85 | Is the CPP2 Price attribute supported? | [R2]/D.4.2.2.6.3 | PCS1:O | N |
| PCS86 | Is the TariffLabel attribute supported? | [R2]/D.4.2.2.7.1 | PCS1:O | N |
| PCS87 | Is the NumberofPriceTiersInUse attribute supported? | [R2]/D.4.2.2.7.2 | PCS1:O | Y  EP:1 |
| PCS88 | Is the NumberofBlockThresholdsInUse attribute supported? | [R2]/D.4.2.2.7.3 | PCS1:O | Y  EP:1 |
| PCS89 | Is the TierBlockMode attribute supported? | [R2]/D.4.2.2.7.4 | PCS1:O | N |
| PCS90 | Is the Unit of Measure attribute supported? | [R2]/D.4.2.2.7.5 | PCS1:O | N |
| PCS91 | Is the Currency attribute supported? | [R2]/D.4.2.2.7.6 | PCS1:O | N |
| PCS92 | Is the Price Trailing Digit attribute supported? | [R2]/D.4.2.2.7.7 | PCS1:O | Y  EP:1 |
| PCS93 | Is the TariffResolutionPeriod attribute supported? | [R2]/D.4.2.2.7.8 | PCS1:O | N |
| PCS94 | Is the CO2 attribute supported? | [R2]/D.4.2.2.7.9 | PCS1:O | N |
| PCS95 | Is the CO2Unit attribute supported? | [R2]/D.4.2.2.7.10 | PCS1:O | N |
| PCS96 | Is the CO2TrailingDigit attribute supported? | [R2]/D.4.2.2.7.11 | PCS1:O | N |
| PCS97 | Is the LastBillingPeriodStart attribute supported? | [R2]/D.4.2.2.8.3 | PCS1:O | N |
| PCS98 | Is the LastBillingPeriodDuration attribute supported? | [R2]/D.4.2.2.8.4 | PCS1:O | N |
| PCS99 | Is the LastBillingPeriodConsolidatedBill attribute supported? | [R2]/D.4.2.2.8.5 | PCS1:O | N |
| PCS100 | Is the CreditPaymentDueDate attribute supported? | [R2]/D.4.2.2.9.1 | PCS1:O | N |
| PCS101 | Is the CreditPaymentStatus attribute supported? | [R2]/D.4.2.2.9.2 | PCS1:O | N |
| PCS102 | Is the CreditPaymentOverDueAmount attribute supported? | [R2]/D.4.2.2.9.3 | PCS1:O | N |
| PCS103 | Is the PaymentDiscount attribute supported? | [R2]/D.4.2.2.9.4 | PCS1:O | N |
| PCS104 | Is the PaymentDiscountPeriod attribute supported? | [R2]/D.4.2.2.9.5 | PCS1:O | N |
| PCS105 | Is the CreditPayment#1 attribute supported? | [R2]/D.4.2.2.9.6 | PCS1:O | N |
| PCS106 | Is the CreditPaymentDate#1 attribute supported? | [R2]/D.4.2.2.9.7 | PCS1:O | N |
| PCS107 | Is the CreditPaymentRef#1 attribute supported? | [R2]/D.4.2.2.9.8 | PCS1:O | N |
| PCS108 | Is the CreditPayment#2 attribute supported? | [R2]/D.4.2.2.9.6 | PCS1:O | N |
| PCS109 | Is the CreditPaymentDate#2 attribute supported? | [R2]/D.4.2.2.9.7 | PCS1:O | N |
| PCS110 | Is the CreditPaymentRef#2 attribute supported? | [R2]/D.4.2.2.9.8 | PCS1:O | N |
| PCS111 | Is the CreditPayment#3 attribute supported? | [R2]/D.4.2.2.9.6 | PCS1:O | N |
| PCS112 | Is the CreditPaymentDate#3 attribute supported? | [R2]/D.4.2.2.9.7 | PCS1:O | N |
| PCS113 | Is the CreditPaymentRef#3 attribute supported? | [R2]/D.4.2.2.9.8 | PCS1:O | N |
| PCS114 | Is the CreditPayment#4 attribute supported? | [R2]/D.4.2.2.9.6 | PCS1:O | N |
| PCS115 | Is the CreditPaymentDate#4 attribute supported? | [R2]/D.4.2.2.9.7 | PCS1:O | N |
| PCS116 | Is the CreditPaymentRef#4 attribute supported? | [R2]/D.4.2.2.9.8 | PCS1:O | N |
| PCS117 | Is the CreditPayment#5 attribute supported? | [R2]/D.4.2.2.9.6 | PCS1:O | N |
| PCS118 | Is the CreditPaymentDate#5 attribute supported? | [R2]/D.4.2.2.9.7 | PCS1:O | N |
| PCS119 | Is the CreditPaymentRef#5 attribute supported? | [R2]/D.4.2.2.9.8 | PCS1:O | N |
| PCS120 | Are any ReceivedTierNPriceLabel attributes supported? | [R2]/D.4.2.2.10 | PCS1:O | N |
| PCS121 | Are any ReceivedBlockNThreshold attributes supported? | [R2]/D.4.2.2.11 | PCS42:O  PCS43:O | N |
| PCS122 | Is the ReceivedStartofBlockPeriod attribute supported? | [R2]/D.4.2.2.12.1 | PCS1:O | N |
| PCS123 | Is the ReceivedBlockPeriodDuration attribute supported? | [R2]/D.4.2.2.12.2 | PCS1:O | N |
| PCS124 | Is the ReceivedThresholdMultiplier attribute supported? | [R2]/D.4.2.2.12.3 | PCS1:O | N |
| PCS125 | Is the ReceivedThresholdDivisor attribute supported? | [R2]/D.4.2.2.12.4 | PCS1:O | N |
| PCS126 | Are any Received Block Price Information ‘RxTierMBlockNPrice’ attributes supported? | [R2]/D.4.2.2.13 | PCS42:O  PCS43:O | N |
| PCS127 | Are any ReceivedPriceTierN attributes supported? | [R2]/D.4.2.2. 14 | PCS1:O | N |
| PCS128 | Is the ReceivedTariffLabel attribute supported? | [R2]/D.4.2.2.15.1 | PCS1:O | N |
| PCS129 | Is the ReceivedNumberofPriceTiersInUse attribute supported? | [R2]/D.4.2.2.15.2 | PCS1:O | N |
| PCS130 | Is the ReceivedNumberofBlockThresholdsInUse attribute supported? | [R2]/D.4.2.2.15.3 | PCS1:O | N |
| PCS131 | Is the ReceivedTierBlockMode attribute supported? | [R2]/D.4.2.2.15.4 | PCS1:O | N |
| PCS132 | Is the ReceivedTariffResolutionPeriod attribute supported? | [R2]/D.4.2.2.15.5 | PCS1:O | N |
| PCS133 | Is the ReceivedCO2 attribute supported? | [R2]/D.4.2.2.15.6 | PCS1:O | N |
| PCS134 | Is the ReceivedCO2Unit attribute supported? | [R2]/D.4.2.2.15.7 | PCS1:O | N |
| PCS135 | Is the ReceivedCO2TrailingDigit attribute supported? | [R2]/D.4.2.2.15.8 | PCS1:O | N |
| PCS136 | Is the ReceivedCurrentBillingPeriodStart attribute supported? | [R2]/D.4.2.2.16.1 | PCS1:O | N |
| PCS137 | Is the ReceivedCurrentBillingPeriodDuration attribute supported? | [R2]/D.4.2.2.16.2 | PCS1:O | N |
| PCS138 | Is the ReceivedLastBillingPeriodStart attribute supported? | [R2]/D.4.2.2.16.3 | PCS1:O | N |
| PCS139 | Is the ReceivedLastBillingPeriodDuration attribute supported? | [R2]/D.4.2.2.16.4 | PCS1:O | N |
| PCS140 | Is the ReceivedLastBillingPeriodConsolidatedBill attribute supported? | [R2]/D.4.2.2.16.5 | PCS1:O | N |
| PCS141 | Is the reception of the *GetTariffInformation* command supported? | [R2]/D.4.2.3.8 | PCS1:O | Y  EP:1 |
| PCS142 | Is the reception of the *GetPriceMatrix* command supported? | [R2]/D.4.2.3.9 | PCS1:O | Y  EP:1 |
| PCS143 | Is the reception of the *GetBlockThresholds* command supported? | [R2]/D.4.2.3.10 | PCS1:O | Y  EP:1 |
| PCS144 | Is the reception of the *GetCO2Value* command supported? | [R2]/D.4.2.3.11 | PCS1:O | N |
| PCS145 | Is the reception of the *GetTierLabels* command supported? | [R2]/D.4.2.3.12 | PCS1:O | N |
| PCS146 | Is the reception of the *GetBillingPeriod* command supported? | [R2]/D.4.2.3.13 | PCS1:O | N |
| PCS147 | Is the reception of the *GetConsolidatedBill* command supported? | [R2]/D.4.2.3.14 | PCS1:O | N |
| PCS148 | Is the reception of the *CPPEventResponse* command supported? | [R2]/D.4.2.3.15 | PCS1:O | N |
| PCS149 | Is the reception of the *GetCreditPayment* command supported? | [R2]/D.4.2.3.16 | PCS1:O | N |
| PCS150 | Is the reception of the *GetCurrencyConversion* command supported? | [R2]/D.4.2.3.17 | PCS1:O | N |
| PCS151 | Is the reception of the *GetTariffCancellation* command supported? | [R2]/D.4.2.3.18 | PCS1:O | N |
| PCS152 | Is the generation of the *PublishTariffInformation* command supported? | [R2]/D.4.2.4.5 | PCS1:O | Y  EP:1 |
| PCS153 | Is the generation of the *PublishPriceMatrix* command supported? | [R2]/D.4.2.4.6 | PCS1:O | Y  EP:1 |
| PCS154 | Is the generation of the *PublishBlockThresholds* command supported? | [R2]/D.4.2.4.7 | PCS1:O | Y  EP:1 |
| PCS155 | Is the generation of the *PublishCO2Value* command supported? | [R2]/D.4.2.4.8 | PCS1:O | N |
| PCS156 | Is the generation of the *PublishTierLabels* command supported? | [R2]/D.4.2.4.9 | PCS1:O | N |
| PCS157 | Is the generation of the *PublishBillingPeriod* command supported? | [R2]/D.4.2.4.10 | PCS1:O | N |
| PCS158 | Is the generation of the *PublishConsolidatedBill* command supported? | [R2]/D.4.2.4.11 | PCS1:O | N |
| PCS159 | Is the generation of the *PublishCPPEvent* command supported? | [R2]/D.4.2.4.12 | PCS1:O | N |
| PCS160 | Is the generation of the *PublishCreditPayment*command supported? | [R2]/D.4.2.4.13 | PCS1:O | N |
| PCS161 | Is the generation of the *PublishCurrencyConversion*command supported? | [R2]/D.4.2.4.14 | PCS1:O | N |
| PCS162 | Is the generation of the *CancelTariff*command supported? | [R2]/D.4.2.4.15 | PCS1:O | N |

Table – Price cluster client capabilities

| Item number | Item description | Reference | Status | Support | |
| --- | --- | --- | --- | --- | --- |
| PCC1 | Is the Price Cluster supported as a client? | [R2]/D.4 | O | N | |
| PCC2 | Is the reception of Publish Price command supported? | [R2]/D.4.2.4.1 | PCC1:M | NA |
| PCC3 | Is the generation of Get Current Price command supported? | [R2]/D.4.2.3.2 | PCC1:M | NA |
| PCC4 | Is the generation of Get Scheduled Prices command supported? | [R2]/D.4.2.3.3 | PCC1:O | NA |
| PCC5 | Is the PriceIncreaseRandomizeMinutes attribute supported? | [R2]/D.4.3.2.1 | PCC1:O | NA |
| PCC6 | Is the PriceDecreaseRandomizeMinutes attribute supported? | [R2]/D.4.3.2.2 | PCC1:O | NA |
| PCC7 | Is the Commodity Type (client) attribute supported? | [R2]/D.4.3.2.3 | PCC1:O | NA |
| PCC8 | Is the generation of Price Acknowledgement command supported? | [R2]/D.4.2.3.4 | PCC1:O | NA |
| PCC9 | Is the reception of Publish Block Period command supported? | [R2]/D.4.2.4.2 | PCC12:O  PCC13:O | NA |
| PCC10 | Is the generation of Get Block Period(s) command supported? | [R2]/D.4.2.3.5 | PCC12:O  PCC13:O | NA |
| PCC11 | Is the TOU charging behavior supported? | [R2]/D.4.4.3.1 | PCC1:O | NA |
| PCC12 | Is the Block Tariffs Block Charging ONLY behavior supported? | [R2]/D.4.4.3.2 | PCC1:O | NA |
| PCC13 | Is the Block Tariffs Block/TOU Combination Charging supported? | [R2]/D.4.4.3.3 | PCC1:O | NA |
| PCC14 | Is the Block Tariffs guideline for extended non-communication supported? | [R2]/D.4.4.3.4 | PCC12:O  PCC13:O | NA |
| PCC15 | Is the Block Tariffs guideline for meter installation or swap-out supported? | [R2]/D.4.4.3.4 | PCC12:O  PCC13:O | NA |
| PCC16 | Is the generation of the *GetConversionFactor* command supported? | [R2]/D.4.2.3.6 | PCC1:O | NA |
| PCC17 | Is the generation of the *GetCalorificValue* command supported? | [R2]/D.4.2.3.7 | PCC1:O | NA |
| PCC18 | Is the reception of the *Publish Conversion Factor* command supported? | [R2]/D.4.2.4.3 | PCC1:O | NA |
| PCC19 | Is the reception of the *Publish Calorific Value* command supported? | [R2]/D.4.2.4.4 | PCC1:O | NA |
| PCC20 | Is the reception of the *PublishTariffInformation* command supported? | [R2]/D.4.2.4.5 | PCC1:O | NA |
| PCC21 | Is the reception of the *PublishPriceMatrix* command supported? | [R2]/D.4.2.4.6 | PCC1:O | NA |
| PCC22 | Is the reception of the *PublishBlockThresholds* command supported? | [R2]/D.4.2.4.7 | PCC1:O | NA |
| PCC23 | Is the reception of the *PublishCO2Value* command supported? | [R2]/D.4.2.4.8 | PCC1:O | NA |
| PCC24 | Is the reception of the *PublishTierLabels* command supported? | [R2]/D.4.2.4.9 | PCC1:O | NA |
| PCC25 | Is the reception of the *PublishBillingPeriod* command supported? | [R2]/D.4.2.4.10 | PCC1:O | NA |
| PCC26 | Is the reception of the *PublishConsolidatedBill* command supported? | [R2]/D.4.2.4.11 | PCC1:O | NA |
| PCC27 | Is the reception of the *PublishCPPEvent* command supported? | [R2]/D.4.2.4.12 | PCC1:O | NA |
| PCC28 | Is the reception of the *PublishCreditPayment*command supported? | [R2]/D.4.2.4.13 | PCC1:O | NA |
| PCC29 | Is the reception of the *PublishCurrencyConversion*command supported? | [R2]/D.4.2.4.14 | PCC1:O | NA |
| PCC30 | Is the reception of the *CancelTariff*command supported? | [R2]/D.4.2.4.15 | PCC1:O | NA |
| PCC31 | Is the generation of the *GetTariffInformation* command supported? | [R2]/D.4.2.3.8 | PCC1:O | NA |
| PCC32 | Is the generation of the *GetPriceMatrix* command supported? | [R2]/D.4.2.3.9 | PCC1:O | NA |
| PCC33 | Is the generation of the *GetBlockThresholds* command supported? | [R2]/D.4.2.3.10 | PCC1:O | NA |
| PCC34 | Is the generation of the *GetCO2Value* command supported? | [R2]/D.4.2.3.11 | PCC1:O | NA |
| PCC35 | Is the generation of the *GetTierLabels* command supported? | [R2]/D.4.2.3.12 | PCC1:O | NA |
| PCC36 | Is the generation of the *GetBillingPeriod* command supported? | [R2]/D.4.2.3.13 | PCC1:O | NA |
| PCC37 | Is the generation of the *GetConsolidatedBill* command supported? | [R2]/D.4.2.3.14 | PCC1:O | NA |
| PCC38 | Is the generation of the *CPPEventResponse* command supported? | [R2]/D.4.2.3.15 | PCC1:O | NA |
| PCC39 | Is the generation of the *GetCreditPayment* command supported? | [R2]/D.4.2.3.16 | PCC1:O | NA |
| PCC40 | Is the generation of the *GetCurrencyConversion* command supported? | [R2]/D.4.2.3.17 | PCC1:O | NA |
| PCC41 | Is the generation of the *GetTariffCancellation*command supported? | [R2]/D.4.2.3.18 | PCC1:O | NA |

### Messaging Cluster attributes and functions

Table – Messaging cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| MCS1 | Is the Messaging Cluster supported as a server? | [R2]/D.5 | O | Y  EP:1 |
| MCS2 | Is the reception of Get Last Message command supported? | [R2]/D.5.3.3.1 | MCS1:M | Y  EP:1 |
| MCS5 | Is the reception of Message Confirmation command supported? | [R2]/D.5.3.3.2 | MCS1:M | Y  EP:1 |
| MCS3 | Is the generation of Display Message command supported? | [R2]/D.5.2.3.1 | MCS1:M | Y  EP:1 |
| MCS4 | Is the generation of Cancel Message command supported? | [R2]/D.5.2.3.2 | MCS1:M | Y  EP:1 |
| MCS5 | Is the generation of Display Protected Message command supported? | [R2]/D.5.2.3.3 | MCS1:O | N |
| MCS6 | Is the generation of Cancel All Messages command supported? | [R2]/D.5.2.3.4 | MCS1:O | Y  EP:1 |
| MCS7 | Is the reception of GetMessageCancellation command supported? | [R2]/D.5.3.3.3 | MCS1:O | N |

Table – Messaging cluster client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| MCC1 | Is the Messaging Cluster supported as a client? | [R2]/D.5 | O | N |
| MCC2 | Is the reception of Display Message command supported? | [R2]/D.5.2.3.1 | MCC1:M | NA |
| MCC3 | Is the reception of Cancel Message command supported? | [R2]/D.5.2.3.2 | MCC1:M | NA |
| MCC4 | Is the generation of Get Last Message command supported? | [R2]/D.5.3.3.1 | MCC1:M | NA |
| MCC5 | Is the generation of Message Confirmation command supported? | [R2]/D.5.3.3.2 | MCC1:M | NA |
| MCC6 | Is the reception of Display Protected Message command supported? | [R2]/D.5.2.3.3 | MCC1:O | NA |
| MCC7 | Is the reception of Cancel All Messages command supported? | [R2]/D.5.2.3.4 | MCC1:O | NA |
| MCC8 | Is the generation of GetMessageCancellation command supported? | [R2]/D.5.3.3.3 | MCC1:M | NA |

### 

### Tunneling Cluster attributes and functions

Table – Tunneling cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| TUS1 | Is the Tunneling Cluster supported as a server? | [R2]/D.6 | O | Y  EP:1 |
| TUS2 | Is the reception of RequestTunnel command supported? | [R2]/D.6.2.4.1 | TUS1:M | Y  EP:1 |
| TUS3 | Is the reception of CloseTunnel command supported? | [R2]/D.6.2.4.2 | TUS1:M | Y  EP:1 |
| TUS4 | Is the reception of TransferData command supported? | [R2]/D.6.2.4.3 | TUS1:M | Y  EP:1 |
| TUS5 | Is the reception of TransferDataError command supported? | [R2]/D.6.2.4.4 | TUS1:M | Y  EP:1 |
| TUS6 | Is the reception of AckTransferData command supported? | [R2]/D.6.2.4.5 | TUS1:O | N |
| TUS7 | Is the reception of ReadyData command supported? | [R2]/D.6.2.4.6 | TUS1:O | N |
| TUS8 | Is the generation of RequestTunnelResponse command supported? | [R2]/D.6.2.5.1 | TUS1:M | Y  EP:1 |
| TUS9 | Is the generation of TransferData command supported? | [R2]/D.6.2.5.2 | TUS1:M | Y  EP:1 |
| TUS10 | Is the generation of TransferDataError command supported? | [R2]/D.6.2.5.3 | TUS1:M | Y  EP:1 |
| TUS11 | Is the generation of AckTransferData command supported? | [R2]/D.6.2.5.4 | TUS1:O | N |
| TUS12 | Is the generation of ReadyData command supported? | [R2]/D.6.2.5.5 | TUS1:O | N |
| TUS13 | Is the reception of the *GetSupportedTunnelProtocols* supported? | [R2]/D.6.2.4.7 | TUS1:O | N |
| TUS14 | Is the generation of the *Supported Tunnel Protocols Response* command supported? | [R2]/D.6.2.5.6 | TUS1:O | N |
| TUS15 | Is the generation of the *TunnelClosureNotification* command supported? | [R2]/D.6.2.5.7 | TUS1:O | N |
| TUS16 | Is the *CloseTunnelTimeout* attribute supported? | [R2]/D.6.2.2.1 | TUS1:M | Y  EP:1 |

Table – Tunneling cluster client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| TUC1 | Is the Tunneling Cluster supported as a client? | [R2]/D.6 | O | Y  EP:1 |
| TUC2 | Is the reception of RequestTunnelResponse command supported? | [R2]/D.6.3.3 /D.6.2.5.1 | TUC1:M | Y  EP:1 |
| TUC3 | Is the reception of TransferData command supported? | [R2]/D.6.3.3 /D.6.2.5.2 | TUC1:M | Y  EP:1 |
| TUC4 | Is the reception of TransferDataError command supported? | [R2]/D.6.3.3 /D.6.2.5.3 | TUC1:M | Y  EP:1 |
| TUC5 | Is the reception of AckTransferData command supported? | [R2]/D.6.3.3 /D.6.2.5.4 | TUC1:O | N |
| TUC6 | Is the reception of ReadyData command supported? | [R2]/D.6.3.3 /D.6.2.5.5 | TUC1:O | N |
| TUC7 | Is the generation of RequestTunnel command supported? | [R2]/D.6.3.4 /D.6.2.4.1 | TUC1:M | Y  EP:1 |
| TUC8 | Is the generation of CloseTunnel command supported? | [R2]/D.6.3.4 /D.6.2.4.2 | TUC1:M | Y  EP:1 |
| TUC9 | Is the generation of TransferData command supported? | [R2]/D.6.3.4 /D.6.2.4.3 | TUC1:M | Y  EP:1 |
| TUC10 | Is the generation of TransferDataError command supported? | [R2]/D.6.3.4 /D.6.2.4.4 | TUC1:M | Y  EP:1 |
| TUC11 | Is the generation of AckTransferData command supported? | [R2]/D.6.3.4 /D.6.2.4.5 | TUC1:O | N |
| TUC12 | Is the generation of ReadyData command supported? | [R2]/D.6.3.4 /D.6.2.4.6 | TUC1:O | N |
| TUC13 | Is the generation of the *GetSupportedTunnelProtocols* supported? | [R2]/D.6.2.4 /D.6.2.4.7 | TUC1:O | N |
| TUC14 | Is the reception of the *Supported Tunnel Protocols Response* command supported? | [R2]/D.6.3.3 /D.6.2.5.6 | TUC1:O | N |
| TUC15 | Is the reception of the *TunnelClosureNotification* command supported? | [R2] /D.6.3.3 /D.6.2.5.7 | TUC1:O | N |

### 

### Prepayment Cluster attributes and functions

Table – Prepayment cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| PPCS1 | Is the Prepayment Cluster supported as a server? | [R2]/D.7 | O | Y  EP:17 |
| PPCS2 | Is the reception of Select Available Emergency Credit command supported? | [R2]/D.7.2.3.1 | PPCS1:O | N |
| PPCS3 | RESERVED |  |  | NA |
| PPCS4 | RESERVED |  |  | NA |
| PPCS7 | Is the PaymentControlConfiguration attribute supported? | [R2]/D.7.2.2.1.1 | PPCS1:M | Y  EP:17 |
| PPCS8 | Is the Credit Remaining attribute supported? | [R2]/D.7.2.2.1.2 | PPCS1:O | Y  EP:17 |
| PPCS9 | Is the Emergency Credit Remaining attribute supported? | [R2]/D.7.2.2.1.3 | PPCS1:O | Y  EP:17 |
| PPCS10 | Is the Credit Status attribute supported? | [R2]/D.7.2.2.1.4 | PPCS1:O | Y  EP:17 |
| PPCS11 | Are the Top up Date/Time attributes supported? If so, list supported attributes #1-5. | [R2]/D.7.2.2.2.1 | PPCS1:O | Y  EP:17 |
| PPCS12 | Are the Top up Amount attributes supported? If so, list supported attributes #1-5. | [R2]/D.7.2.2.2.2 | PPCS1:O | Y  EP:17 |
| PPCS13 | Are the Originating Device attributes supported? If so, list supported attributes #1-5. | [R2]/D.7.2.2.2.3 | PPCS1:O | Y  EP:17 |
| PPCS14 | RESERVED |  |  | NA |
| PPCS15 | RESERVED |  |  | NA |
| PPCS16 | RESERVED |  |  | NA |
| PPCS17 | RESERVED |  |  | NA |
| PPCS18 | RESERVED |  |  | NA |
| PPCS19 | RESERVED |  |  | NA |
| PPCS20 | RESERVED |  |  | NA |
| PPCS21 | RESERVED |  |  | NA |
| PPCS22 | RESERVED |  |  | NA |
| PPCS23 | RESERVED |  |  | NA |
| PPCS24 | RESERVED |  |  | NA |
| PPCS25 | Is the CreditRemainingTimeStamp attribute supported? | [R2]/D.7.2.2.1.5 | PPCS1:O | Y  EP:17 |
| PPCS26 | Is the AccumulatedDebt attribute supported? | [R2]/D.7.2.2.1.6 | PPCS1:O | Y  EP:17 |
| PPCS27 | Is the OverallDebtCap attribute supported? | [R2]/D.7.2.2.1.7 | PPCS1:O | Y  EP:17 |
| PPCS28 | Is the EmergencyCredit Limit/Allowance attribute supported? | [R2]/D.7.2.2.1.8 | PPCS1:O | Y  EP:17 |
| PPCS29 | Is the EmergencyCredit Threshold attribute supported? | [R2]/D.7.2.2.1.9 | PPCS1:O | Y  EP:17 |
| PPCS30 | Is the TotalCreditAdded attribute supported? | [R2]/D.7.2.2.1.10 | PPCS1:O | N |
| PPCS31 | Is the MaxCreditLimit attribute supported? | [R2]/D.7.2.2.1.11 | PPCS1:O | N |
| PPCS32 | Is the MaxCreditPerTopUp attribute supported? | [R2]/D.7.2.2.1.12 | PPCS1:O | N |
| PPCS33 | Is the FriendlyCredit Warning attribute supported? | [R2]/D.7.2.2.1.13 | PPCS1:O | N |
| PPCS34 | Is the LowCreditWarning attribute supported? | [R2]/D.7.2.2.1.14 | PPCS1:O | Y  EP:17 |
| PPCS35 | Is the IHDLowCreditWarning attribute supported? | [R2]/D.7.2.2.1.15 | PPCS1:O | Y  EP:17 |
| PPCS36 | Is the InterruptSuspend Time attribute supported? | [R2]/D.7.2.2.1.16 | PPCS1:O | N |
| PPCS37 | Is the RemainingFriendlyCreditTime attribute supported? | [R2]/D.7.2.2.1.17 | PPCS1:O | N |
| PPCS38 | Is the NextFriendlyCreditPeriod attribute supported? | [R2]/D.7.2.2.1.18 | PPCS1:O | N |
| PPCS39 | Is the CutOffValue attribute supported? | [R2]/D.7.2.2.1.19 | PPCS1:O | N |
| PPCS40 | Is the TokenCarrierID attribute supported? | [R2]/D.7.2.2.1.20 | PPCS1:O | Y  EP:17 |
| PPCS41 | Are the Top up Code attributes supported? If so, list supported attributes #1-5. | [R2]/D.7.2.2.2.4 | PPCS1:O | Y  EP:17 |
| PPCS42 | Are the DebtLabel attributes supported? If so, list supported attributes #1-3. | [R2]/D.7.2.2.3.1 | PPCS1:O | Y  EP:17 |
| PPCS43 | Are the DebtAmount attributes supported? If so, list supported attributes #1-3. | [R2]/D.7.2.2.3.2 | PPCS1:O | Y  EP:17 |
| PPCS44 | Are the DebtRecoveryMethod attributes supported? If so, list supported attributes #1-3. | [R2]/D.7.2.2.3.3 | PPCS1:O | Y  EP:17 |
| PPCS45 | Are the DebtRecoveryStartTime attributes supported? If so, list supported attributes #1-3. | [R2]/D.7.2.2.3.4 | PPCS1:O | Y  EP:17 |
| PPCS46 | Are the DebtRecoveryCollectionTime attributes supported? If so, list supported attributes #1-3. | [R2]/D.7.2.2.3.5 | PPCS1:O | Y  EP:17 |
| PPCS47 | Are the DebtRecoveryFrequency attributes supported? If so, list supported attributes #1-3. | [R2]/D.7.2.2.3.6 | PPCS1:O | Y  EP:17 |
| PPCS48 | Are the DebtRecoveryAmount attributes supported? If so, list supported attributes #1-3. | [R2]/D.7.2.2.3.7 | PPCS1:O | Y  EP:17 |
| PPCS49 | Are the DebtRecoveryTopUpPercentage attributes supported? If so, list supported attributes #1-3. | [R2]/D.7.2.2.3.8 | PPCS1:O | Y  EP:17 |
| PPCS50 | Is the PrepaymentAlarmStatus attribute supported? | [R2]/D.7.2.2.5.1 | PPCS1:O | N |
| PPCS51 | Is the PrepayGenericAlarmMask attribute supported? | [R2]/D.7.2.2.5.2 | PPCS1:O | N |
| PPCS52 | Is the PrepaySwitchAlarmMask attribute supported? | [R2]/D.7.2.2.5.2 | PPCS1:O | N |
| PPCS53 | Is the PrepayEventAlarmMask attribute supported? | [R2]/D.7.2.2.5.2 | PPCS1:O | N |
| PPCS54 | Is the HistoricalCostConsumption Formatting attribute supported? | [R2]/D.7.2.2.6.1 | PPCS1:O | Y  EP:17 |
| PPCS55 | Is the ConsumptionUnitofMeasurement attribute supported? | [R2]/D.7.2.2.6.2 | PPCS1:O | Y  EP:17 |
| PPCS56 | Is the CurrencyScalingFactor attribute supported? | [R2]/D.7.2.2.6.3 | PPCS1:O | Y  EP:17 |
| PPCS57 | Is the Currency attribute supported? | [R2]/D.7.2.2.6.4 | PPCS1:O | Y  EP:17 |
| PPCS58 | Is the CurrentDayCostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.5 | PPCS1:O | Y  EP:17 |
| PPCS59 | Is the CurrentDayCostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.6 | PPCS1:O | N |
| PPCS60 | Is the PreviousDayCostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.7 | PPCS1:O | Y  EP:17 |
| PPCS61 | Is the PreviousDayCostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.8 | PPCS1:O | N |
| PPCS62 | Is the PreviousDay2CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.7 | PPCS1:O | Y  EP:17 |
| PPCS63 | Is the PreviousDay2CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.8 | PPCS1:O | N |
| PPCS64 | Is the PreviousDay3CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.7 | PPCS1:O | Y  EP:17 |
| PPCS65 | Is the PreviousDay3CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.8 | PPCS1:O | N |
| PPCS66 | Is the PreviousDay4CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.7 | PPCS1:O | Y  EP:17 |
| PPCS67 | Is the PreviousDay4CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.8 | PPCS1:O | N |
| PPCS68 | Is the PreviousDay5CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.7 | PPCS1:O | Y  EP:17 |
| PPCS69 | Is the PreviousDay5CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.8 | PPCS1:O | N |
| PPCS70 | Is the PreviousDay6CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.7 | PPCS1:O | Y  EP:17 |
| PPCS71 | Is the PreviousDay6CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.8 | PPCS1:O | N |
| PPCS72 | Is the PreviousDay7CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.7 | PPCS1:O | Y  EP:17 |
| PPCS73 | Is the PreviousDay7CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.8 | PPCS1:O | N |
| PPCS74 | Is the PreviousDay8CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.7 | PPCS1:O | Y  EP:17 |
| PPCS75 | Is the PreviousDay8CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.8 | PPCS1:O | N |
| PPCS76 | Is the CurrentWeekCostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.9 | PPCS1:O | Y  EP:17 |
| PPCS77 | Is the CurrentWeekCostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.10 | PPCS1:O | N |
| PPCS78 | Is the PreviousWeekCostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.11 | PPCS1:O | Y  EP:17 |
| PPCS79 | Is the PreviousWeekCostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.12 | PPCS1:O | N |
| PPCS80 | Is the PreviousWeek2CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.11 | PPCS1:O | Y  EP:17 |
| PPCS81 | Is the PreviousWeek2CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.12 | PPCS1:O | N |
| PPCS82 | Is the PreviousWeek3CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.11 | PPCS1:O | Y  EP:17 |
| PPCS83 | Is the PreviousWeek3CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.12 | PPCS1:O | N |
| PPCS84 | Is the PreviousWeek4CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.11 | PPCS1:O | Y  EP:17 |
| PPCS85 | Is the PreviousWeek4CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.12 | PPCS1:O | N |
| PPCS86 | Is the PreviousWeek5CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.11 | PPCS1:O | Y  EP:17 |
| PPCS87 | Is the PreviousWeek5CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.12 | PPCS1:O | N |
| PPCS88 | Is the CurrentMonthCostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.13 | PPCS1:O | Y  EP:17 |
| PPCS89 | Is the CurrentMonthCostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.14 | PPCS1:O | N |
| PPCS90 | Is the PreviousMonthCostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS91 | Is the PreviousMonthCostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS92 | Is the PreviousMonth2CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS93 | Is the PreviousMonth2CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS94 | Is the PreviousMonth3CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS95 | Is the PreviousMonth3CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS96 | Is the PreviousMonth4CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS97 | Is the PreviousMonth4CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS98 | Is the PreviousMonth5CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS99 | Is the PreviousMonth5CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS100 | Is the PreviousMonth6CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS101 | Is the PreviousMonth6CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS102 | Is the PreviousMonth7CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS103 | Is the PreviousMonth7CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS104 | Is the PreviousMonth8CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS105 | Is the PreviousMonth8CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS106 | Is the PreviousMonth9CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS107 | Is the PreviousMonth9CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS108 | Is the PreviousMonth10CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS109 | Is the PreviousMonth10CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS110 | Is the PreviousMonth11CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS111 | Is the PreviousMonth11CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS112 | Is the PreviousMonth12CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS113 | Is the PreviousMonth12CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS114 | Is the PreviousMonth13CostConsumptionDelivered attribute supported? | [R2]/D.7.2.2.6.15 | PPCS1:O | Y  EP:17 |
| PPCS115 | Is the PreviousMonth13CostConsumptionReceived attribute supported? | [R2]/D.7.2.2.6.16 | PPCS1:O | N |
| PPCS116 | Is the HistoricalFreezeTime attribute supported? | [R2]/D.7.2.2.6.17 | PPCS1:O | Y  EP:17 |
| PPCS117 | Is the reception of Change Debt command supported? | [R2]/D.7.2.3.3 | PPCS1:O | N |
| PPCS118 | Is the reception of Emergency Credit Setup command supported? | [R2]/D.7.2.3.4 | PPCS1:O | N |
| PPCS119 | Is the reception of Consumer Top Up command supported? | [R2]/D.7.2.3.5 | PPCS1:O | Y  EP:17 |
| PPCS120 | Is the reception of CreditAdjustment command supported? | [R2]/D.7.2.3.6 | PPCS1:O | N |
| PPCS121 | Is the reception of Change Payment Mode command supported? | [R2]/D.7.2.3.7 | PPCS1:O | N |
| PPCS122 | Is the reception of Get Prepay Snapshot command supported? | [R2]/D.7.2.3.8 | PPCS1:O | N |
| PPCS123 | Is the reception of Get Top Up Log command supported? | [R2]/D.7.2.3.9 | PPCS1:O | Y  EP:17 |
| PPCS124 | Is the reception of Set Low Credit Warning Level command supported? | [R2]/D.7.2.3.10 | PPCS1:O | N |
| PPCS125 | Is the reception of Get Debt Repayment Log command supported? | [R2]/D.7.2.3.11 | PPCS1:O | Y  EP:17 |
| PPCS126 | Is the reception of Set Maximum Credit Limit command supported? | [R2]/D.7.2.3.12 | PPCS1:O | N |
| PPCS127 | Is the reception of Set Overall Debt Cap command supported? | [R2]/D.7.2.3.13 | PPCS1:O | N |
| PPCS128 | Is the generation of Publish Prepay Snapshot command supported? | [R2]/D.7.2.4.2 | PPCS1:O | N |
| PPCS129 | Is the generation of Change Payment Mode Response command supported? | [R2]/D.7.2.4.3 | PPCS1:O | N |
| PPCS130 | Is the generation of Consumer Top Up Response command supported? | [R2]/D.7.2.4.4 | PPCS1:O | N |
| PPCS131 | Is the generation of Publish Top Up Log command supported? | [R2]/D.7.2.4.5 | PPCS1:O | N |
| PPCS132 | Is the generation of Publish Debt Log command supported? | [R2]/D.7.2.4.6 | PPCS1:O | N |

Table – Prepayment cluster client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| PPCC1 | Is the Prepayment Cluster supported as a client? | [R2]/D.7 | O | Y  EP:17 |
| PPCC2 | Is the generation of Select Available Emergency Credit command supported? | [R2]/D.7.3.4 /D.7.2.3.1 | PPCC1:O | N |
| PPCC3 | RESERVED |  |  | NA |
| PPCC4 | RESERVED |  |  | NA |
| PPCC5 | Is the generation of Change Debt command supported? | [R2]/D.7.3.4 /D.7.2.3.3 | PPCC1:O | Y  EP:17 |
| PPCC6 | Is the generation of Emergency Credit Setup command supported? | [R2]/D.7.3.4 /D.7.2.3.4 | PPCC1:O | Y  EP:17 |
| PPCC7 | Is the generation of Consumer Top Up command supported? | [R2]/D.7.3.4 /D.7.2.3.5 | PPCC1:O | Y  EP:17 |
| PPCC8 | Is the generation of CreditAdjustment command supported? | [R2]/D.7.3.4 /D.7.2.3.6 | PPCC1:O | Y  EP:17 |
| PPCC9 | Is the generation of Change Payment Mode command supported? | [R2]/D.7.3.4 /D.7.2.3.7 | PPCC1:O | Y  EP:17 |
| PPCC10 | Is the generation of Get Prepay Snapshot command supported? | [R2]/D.7.3.4 /D.7.2.3.8 | PPCC1:O | Y  EP:17 |
| PPCC11 | Is the generation of Get Top Up Log command supported? | [R2]/D.7.3.4 /D.7.2.3.9 | PPCC1:O | N |
| PPCC12 | Is the generation of Set Low Credit Warning Level command supported? | [R2]/D.7.3.4 /D.7.2.3.10 | PPCC1:O | Y  EP:17 |
| PPCC13 | Is the generation of Get Debt Repayment Log Level command supported? | [R2]/D.7.3.4 /D.7.2.3.11 | PPCC1:O | Y  EP:17 |
| PPCC14 | Is the generation of Set Maximum Credit Limit Level command supported? | [R2]/D.7.3.4 /D.7.2.3.12 | PPCC1:O | N |
| PPCC15 | Is the generation of Set Overall Debt Cap Level command supported? | [R2]/D.7.3.4 /D.7.2.3.13 | PPCC1:O | Y  EP:17 |
| PPCC16 | Is the reception of Publish Prepay Snapshot command supported? | [R2]/D.7.3.3 /D.7.2.4.2 | PPCC1:O | Y  EP:17 |
| PPCC17 | Is the reception of Change Payment Mode Response command supported? | [R2]/D.7.3.3 /D.7.2.4.3 | PPCC1:O | Y  EP:17 |
| PPCC18 | Is the reception of Consumer Top Up Response command supported? | [R2]/D.7.3.3 /D.7.2.4.4 | PPCC1:O | Y  EP:17 |
| PPCC20 | Is the reception of Publish Top Up Log command supported? | [R2]/D.7.3.3 /D.7.2.4.5 | PPCC1:O | Y  EP:17 |
| PPCC21 | Is the reception of Publish Debt Log command supported? | [R2]/D.7.3.3 /D.7.2.4.6 | PPCC1:O | Y  EP:17 |

### Trust Center Swap-out

Table – Trust Center Swap-out capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| TCSW1 | Is the device a Trust Center supporting Trust Center Swap-out? | [R2]/5.4.2.2.3 | O |  |
| TCSW2 | Is the generation of Trust Center keep-alive command supported? |  | TCSW1:M  FDT1:M  FDT2:M |  |
| TCSW3 | Is the backup of the Extended PAN ID to an off-chip device supported? |  | TCSW1:M  FDT1:M |  |
| TCSW4 | Is the backup of the registered device EUI-64 to an off-chip device supported? |  | TCSW1:M  FDT1:M |  |
| TCSW5 | Is the backup of the registered device Install Code to an off-chip device supported? |  | TCSW1:M  FDT1:M |  |
| TCSW6 | Is the backup of the registered device hashed CBKE derived link key to an off-chip device supported? |  | TCSW1:M  FDT1:M |  |
| TCSW7 | Is the restore of the Extended PAN ID from an off-chip device supported? |  | TCSW1:M  FDT1:M |  |
| TCSW8 | Is the restore of the registered device EUI-64 from an off-chip device supported? |  | TCSW1:M  FDT1:M |  |
| TCSW9 | Is the restore of the registered device Install Code from an off-chip device supported? |  | TCSW1:M  FDT1:M |  |
| TCSW10 | Is the restore of the registered device hashed CBKE derived link key from an off-chip device supported? |  | TCSW1:M  FDT1:M |  |
| TCSW11 | Is the discovery of the new Trust Center based on the Extended PAN ID supported? |  | TCSW1:M  FDT2:M |  |
| TCSW12 | Is the rejoin using the CBKE derived link key supported? |  | TCSW1:M  FDT2:M |  |
| TCSW13 | Is the Recommision of device supported? |  | FDT1:M  FDT2:M  FDT3:M |  |
| TCSW14 | Does the device support the Trust Center Swap-Out parameters? | [R2] 5.4.2.2.3.7 | TCSW1:M  FDT1:M |  |

### Multiple ESI

Table – Multiple ESI Client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| MESC1 | Is Multiple ESI supported? | [R2]/5.7 | O | N |
| MESC2 | Is the discovery of all ESIs in a HAN supported? |  | MESC1:M | NA |
| MESC3 | Is the generation of bindings on discovered ESIs supported? |  | MESC1:M | NA |
| MESC4 | Is determination of the authoritative ESI supported? |  | MESC1:M | NA |
| MESC5 | Is processing of events from multiple ESIs supported? |  | MESC1:M | NA |
| MESC6 | Is resolution of conflicting events received from multiple ESIs supported? |  | MESC1:M | NA |
| MESC7 | Is the notification message for an event sent to at least one ESI that sent the event? |  | MESC1:M | NA |
| MESC8 | Is the event processing based on the authoritative time? |  | MESC1:M | NA |

Table 45 – Multiple ESI Server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| MESS1 | Is Multiple ESI supported? | [R2]/5.7 | O | N |
| MESS2 | Is the *TimeStatus* attribute supported? |  | MESS1:M | NA |
| DELETED  ~~MESS3~~ | ~~Is the~~ *~~LastSynchronizedTime~~* ~~attribute supported?~~ |  | ~~MESS1:M~~ | ~~[NA or Y/N] [Int: EP# x]~~ |
| MESS4 | Is the *ValidUntilTime* attribute supported? |  | MESS1:M | NA |

### OTA Upgrade Cluster attributes and functions

Table – OTA Upgrade cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| OTAS1 | Is the OTA Upgrade Cluster supported as a server? | [R9] | O | Y |

Table – OTA Upgrade cluster client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| OTAC1 | Is the OTA Upgrade Cluster supported as a client? | [R9] | O | N |

If supporting OTA upgrade cluster client or server, need to complete OTA Upgrade Cluster PICS document in addition to this document for certification.

### Calendar Cluster attributes and functions

Table 48 – Calendar cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| CALCS1 | Is the Calendar Cluster supported as a server? | [R2]/D.9 | O |  |
| CALCS2 | Is the AuxSwitch1Label attribute supported? | [R2]/D.9.2.2.1.1 | CALCS1:O | N |
| CALCS3 | Is the AuxSwitch2Label attribute supported? | [R2]/D.9.2.2.1.1 | CALCS1:O | N |
| CALCS4 | Is the AuxSwitch3Label attribute supported? | [R2]/D.9.2.2.1.1 | CALCS1:O | N |
| CALCS5 | Is the AuxSwitch4Label attribute supported? | [R2]/D.9.2.2.1.1 | CALCS1:O | N |
| CALCS6 | Is the AuxSwitch5Label attribute supported? | [R2]/D.9.2.2.1.1 | CALCS1:O | N |
| CALCS7 | Is the AuxSwitch6Label attribute supported? | [R2]/D.9.2.2.1.1 | CALCS1:O | N |
| CALCS8 | Is the AuxSwitch7Label attribute supported? | [R2]/D.9.2.2.1.1 | CALCS1:O | N |
| CALCS9 | Is the AuxSwitch8Label attribute supported? | [R2]/D.9.2.2.1.1 | CALCS1:O | N |
| CALCS10 | Is the generation of PublishCalendar command supported? | [R2]/D.9.2.3.1 | CALCS1:O | Y  EP:1 |
| CALCS10a | Maximum number of calendars that can be stored by device? | [R2]/D.9.1 |  | 2 |
| CALCS11 | Is the generation of PublishDayProfile command supported? | [R2]/D.9.2.3.2 | CALCS1:M | Y  EP:1 |
| CALCS11a | Can the device support application-layer fragmentation (‘Command Indexing’) of PublishDayProfile commands?  NOTE: It is anticipated that at least 14 Schedule Entries would need to be included before a second sub-command would be needed) | [R2]/D.9.2.3.2 |  | Y  EP:1 |
| CALCS11b | Maximum number of Day Profiles that can be stored by device? | [R2]/D.9.2.3.2 |  | 8 |
| CALCS11c | Maximum number of Schedule Entries that can be stored in each Day Profile? | [R2]/D.9.2.3.2 |  | 48 |
| CALCS12 | Is the generation of PublishWeekProfile command supported? | [R2]/D.9.2.3.3 | CALCS1:M | Y  EP:1 |
| CALCS12a | Maximum number of Week Profiles that can be stored by device? | [R2]/D.9.2.3.3 |  | 4 |
| CALCS13 | Is the generation of PublishSeasons command supported? | [R2]/D.9.2.3.4 | CALCS1:M | Y  EP:1 |
| CALCS13a | Can the device support application-layer fragmentation (‘Command Indexing’) of Publish Seasons commands?  NOTE: It is anticipated that at least 9 Season Entries would need to be included before a second sub-command would be needed) | [R2]/D.9.2.3.4 |  | Y |
| CALCS13b | Maximum number of Season Entries that can be stored? | [R2]/D.9.2.3.4 |  | 4 |
| CALCS14 | Is the generation of PublishSpecialDays command supported? | [R2]/D.9.2.3.5 | CALCS1:M | Y  EP:1 |
| CALCS14a | Maximum number of Special Day Entries that can be stored? | [R2]/D.9.2.3.5 |  | 50 |
| CALCS15 | Is the generation of CancelCalendar command supported? | [R2]/D.9.2.3.6 | CALCS1:O | N |
| CALCS16 | Is the reception of GetCalendar command supported? | [R2]/D.9.2.4.1 | CALCS1:O | Y  EP:1 |
| CALCS17 | Is the reception of GetDayProfiles command supported? | [R2]/D.9.2.4.2 | CALCS1:O | Y  EP:1 |
| CALCS18 | Is the reception of GetWeekProfiles command supported? | [R2]/D.9.2.4.3 | CALCS1:O | Y  EP:1 |
| CALCS19 | Is the reception of GetSeasons command supported? | [R2]/D.9.2.4.4 | CALCS1:O | Y  EP:1 |
| CALCS20 | Is the reception of GetSpecialDays command supported? | [R2]/D.9.2.4.5 | CALCS1:O | Y  EP:1 |
| CALCS21 | Is the reception of GetCalendarCancellationcommand supported? | [R2]/D.9.2.4.6 | CALCS1:O | N |

Table 49 – Calendar cluster client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| CALCC1 | Is the Calendar Cluster supported as a client? | [R2]/D.9 | O | N |
| CALCC2 | Is the reception of PublishCalendar command supported? | [R2]/D.9.3.3 /D.9.2.3.1 | CALCC1:M | NA |
| CALCC2a | Maximum number of calendars that can be stored by device? | [R2]/D.9.1 |  | NA |
| CALCC3 | Is the reception of PublishDayProfile command supported? | [R2]/D.9.3.3 /D.9.2.3.2 | CALCC1:M | NA |
| CALCC3a | Can the device support application-layer fragmentation (‘Command Indexing’) of PublishDayProfile commands?  NOTE: It is anticipated that at least 14 Schedule Entries would need to be included before a second sub-command would be needed) | [R2]/D.9.2.3.2 |  | NA |
| CALCC3b | Maximum number of Day Profiles that canbe stored by device? | [R2]/D.9.2.3.2 |  | NA |
| CALCC3c | Maximum number of Schedule Entries that can be stored in each Day Profile? | [R2]/D.9.2.3.2 |  | NA |
| CALCC4 | Is the reception of PublishWeekProfile command supported? | [R2]/D.9.3.3 /D.9.2.3.3 | CALCC1:M | NA |
| CALCC4a | Maximum number of Week Profiles that can be stored by device? | [R2]/D.9.2.3.3 |  | NA |
| CALCC5 | Is the reception of PublishSeasons command supported? | [R2]/D.9.3.3 /D.9.2.3.4 | CALCC1:M | NA |
| CALCC5a | Can the device support application-layer fragmentation (‘Command Indexing’) of Publish Seasons commands?  NOTE: It is anticipated that at least 9 Season Entries would need to be included before a second sub-command would be needed) | [R2]/D.9.2.3.4 |  | NA |
| CALCC5b | Maximum number of Season Entries that can be stored? | [R2]/D.9.2.3.4 |  | NA |
| CALCC6 | Is the reception of PublishSpecialDays command supported? | [R2]/D.9.3.3 /D.9.2.3.5 | CALCC1:M | NA |
| CALCC6a | Maximum number of Special Day Entries that can be stored? | [R2]/D.9.2.3.5 |  | NA |
| CALCC7 | Is the reception of CancelCalendar command supported? | [R2]/D.9.3.3 /D.9.2.3.6 | CALCC1:O | NA |
| CALCC8 | Is the generation of GetCalendar command supported? | [R2]/D.9.3.4 /D.9.2.4.1 | CALCC1:O | NA |
| CALCC9 | Is the generation of GetDayProfiles command supported? | [R2]/D.9.3.4 /D.9.2.4.2 | CALCC1:O | NA |
| CALCC10 | Is the generation of GetWeekProfiles command supported? | [R2]/D.9.3.4 /D.9.2.4.3 | CALCC1:O | NA |
| CALCC11 | Is the generation of GetSeasons command supported? | [R2]/D.9.3.4 /D.9.2.4.4 | CALCC1:O | NA |
| CALCC12 | Is the generation of GetSpecialDays command supported? | [R2]/D.9.3.4 /D.9.2.4.5 | CALCC1:O | NA |
| CALCC13 | Is the generation of GetCalendarCancellation command supported? | [R2]/D.9.3.4 /D.9.2.4.6 | CALCC1:O | NA |

### Device Management Cluster attributes and functions

Table 50 – Device Management cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| DMCS1 | Is the Device Management Cluster supported as a server? | [R2]/D.10 | O | Y  EP:1 |
| DMCS2 | Is the ProviderID attribute supported? | [R2]/D.10.2.2.1.1 | DMCS1:O | Y  EP:1 |
| DMCS3 | Is the ProviderName attribute supported? | [R2]/D.10.2.2.1.2 | DMCS1:O | Y  EP:1 |
| DMCS4 | Is the ProviderContactDetails attribute supported? | [R2]/D.10.2.2.1.3 | DMCS1:O | N |
| DMCS5 | Is the ProposedProviderID attribute supported? | [R2]/D.10.2.2.1.4 | DMCS1:O | Y  EP:1 |
| DMCS6 | Is the ProposedProviderName attribute supported? | [R2]/D.10.2.2.1.5 | DMCS1:O | Y  EP:1 |
| DMCS7 | Is the ProposedProviderChangeDate/Time attribute supported? | [R2]/D.10.2.2.1.6 | DMCS1:O | Y  EP:1 |
| DMCS8 | Is the ProposedProviderChangeControl attribute supported? | [R2]/D.10.2.2.1.7 | DMCS1:O | Y  EP:1 |
| DMCS9 | Is the Proposed Provider Contact Details attribute supported? | [R2]/D.10.2.2.1.8 | DMCS1:O | N |
| DMCS10 | Is the ReceivedProviderID attribute supported? | [R2]/D.10.2.2.1.9 | DMCS1:O | N |
| DMCS11 | Is the ReceivedProviderName attribute supported? | [R2]/D.10.2.2.1.10 | DMCS1:O | N |
| DMCS12 | Is the ReceivedProviderContactDetails attribute supported? | [R2]/D.10.2.2.1.11 | DMCS1:O | N |
| DMCS13 | Is the ReceivedProposedProviderID attribute supported? | [R2]/D.10.2.2.1.12 | DMCS1:O | N |
| DMCS14 | Is the ReceivedProposedProviderName attribute supported? | [R2]/D.10.2.2.1.13 | DMCS1:O | N |
| DMCS15 | Is the ReceivedProposedProviderChangeDate/Time attribute supported? | [R2]/D.10.2.2.1.14 | DMCS1:O | N |
| DMCS16 | Is the ReceivedProposedProviderChangeControl attribute supported? | [R2]/D.10.2.2.1.15 | DMCS1:O | N |
| DMCS17 | Is the  ReceivedProposed Provider ContactDetails attribute supported? | [R2]/D.10.2.2.1.16 | DMCS1:O | N |
| DMCS18 | Is the ChangeofTenancyUpdateDate/Time attribute supported? | [R2]/D.10.2.2.2.1 | DMCS1:O | Y  EP:1 |
| DMCS19 | Is the ProposedTenancyChangeControl attribute supported? | [R2]/D.10.2.2.2.2 | DMCS1:O | Y  EP:1 |
| DMCS20 | Is the WAN Status attribute supported? | [R2]/D.10.2.2.3.1 | DMCS1:O | N |
| DMCS21 | Is the LowMediumThreshold attribute supported? | [R2]/D.10.2.2.4.1 | DMCS1:O | N |
| DMCS22 | Is the MediumHighThreshold attribute supported? | [R2]/D.10.2.2.4.2 | DMCS1:O | N |
| DMCS23 | Is the reception of Get Change of Tenancy command supported? | [R2]/D.10.2.3.1 | DMCS1:O | Y  EP:1 |
| DMCS24 | Is the reception of Get Change of Supplier command supported? | [R2]/D.10.2.3.2 | DMCS1:O | Y  EP:1 |
| DMCS25 | Is the reception of RequestNewPassword command supported? | [R2]/D.10.2.3.3 | DMCS1:O | N |
| DMCS24 | Is the reception of GetSiteID command supported? | [R2]/D.10.2.3.4 | DMCS1:O | N |
| DMCS25 | Is the reception of Report Event Configuration command supported? | [R2]/D.10.2.3.5 | DMCS1:O | N |
| DMCS26 | Is the reception of GetCIN command supported? | [R2]/D.10.2.3.6 | DMCS1:O | N |
| DMCS27 | Is the generation of Publish Change of Tenancy command supported? | [R2]/D.10.2.4.1 | DMCS1:O | Y  EP:1 |
| DMCS28 | Is the generation of Publish Change of Supplier command supported? | [R2]/D.10.2.4.2 | DMCS1:O | Y  EP:1 |
| DMCS29 | Is the generation of Request New Password Response command supported? | [R2]/D.10.2.4.3 | DMCS1:O | N |
| DMC30 | Is the generation of UpdateSiteID command supported? | [R2]/D.10.2.4.4 | DMCS1:O | N |
| DMCS31 | Is the generation of SetEventConfiguration command supported? | [R2]/D.10.2.4.5 | DMCS1:O | N |
| DMCS32 | Is the generation of GetEventConfiguration command supported? | [R2]/D.10.2.4.6 | DMCS1:O | N |
| DMC33 | Is the generation of Update CIN command supported? | [R2]/D.10.2.4.7 | DMCS1:O | N |

Table 51 – Device Management cluster client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| DMCC1 | Is the Device Management Cluster supported as a client? | [R2]/D.10 | O | N |
| DMCC2 | Is the Provider ID attribute supported? | [R2]/D.10.3.2.1.1 | DMCS1:O | NA |
| DMCC3 | Is the ReceivedProviderID attribute supported? | [R2]/D.10.3.2.1.2 | DMCS1:O | NA |
| DMCC4 | Is the Price Event Configuration attribute set supported? | [R2]/D.10.3.2.2 | DMCS1:O | NA |
| DMCC5 | Is the Metering Event Configuration attribute set supported? | [R2]/D.10.3.2.3 | DMCS1:O | NA |
| DMCC6 | Is the Messaging Event Configuration attribute set supported? | [R2]/D.10.3.2.4 | DMCS1:O | NA |
| DMCC7 | Is the Prepayment Event Configuration attribute set supported? | [R2]/D.10.3.2.5 | DMCS1:O | NA |
| DMCC8 | Is the Calendar Event Configuration attribute set supported? | [R2]/D.10.3.2.6 | DMCS1:O | NA |
| DMCC9 | Is the Device Management Event Confguration attribute set supported? | [R2]/D.10.3.2.7 | DMCS1:O | NA |
| DMCC10 | Is the Tunnel Event Configuration attribute set supported? | [R2]/D.10.3.2.8 | DMCS1:O | NA |
| DMCC11 | Is the OTA Event Configuration attribute set supported? | [R2]/D.10.3.2.9 | DMCS1:O | NA |
| DMCC12 | Is the reception of Publish Change of Tenancy command supported? | [R2]/D.10.3.3 /D.10.2.4.1 | DMCS1:O | NA |
| DMCC13 | Is the reception of Publish Change of Supplier command supported? | [R2]/D.10.3.3 /D.10.2.4.2 | DMCS1:O | NA |
| DMCC14 | Is the reception of Request New Password Response command supported? | [R2]/D.10.3.3 /D.10.2.4.3 | DMCS1:O | NA |
| DMCC15 | Is the reception of UpdateSiteID command supported? | [R2]/D.10.3.3 /D.10.2.4.4 | DMCS1:O | NA |
| DMCC16 | Is the reception of SetEventConfiguration command supported? | [R2]/D.10.3.3 /D.10.2.4.5 | DMCS1:O | NA |
| DMCC17 | Is the reception of GetEventConfiguration command supported? | [R2]/D.10.3.3 /D.10.2.4.6 | DMCS1:O | NA |
| DMCC18 | Is the reception of Update CIN command supported? | [R2]/D.10.3.3 /D.10.2.4.7 | DMCS1:O | NA |
| DMCC19 | Is the generation of Get Change of Tenancy command supported? | [R2]/D.10.3.4 /D.10.2.3.1 | DMCS1:O | NA |
| DMCC20 | Is the generation of Get Change of Supplier command supported? | [R2]/D.10.3.4 /D.10.2.3.2 | DMCS1:O | NA |
| DMCC21 | Is the generation of RequestNewPassword command supported? | [R2]/D.10.3.4 /D.10.2.3.3 | DMCS1:O | NA |
| DMCC22 | Is the generation of GetSiteID command supported? | [R2]/D.10.3.4 /D.10.2.3.4 | DMCS1:O | NA |
| DMCC23 | Is the generation of Report Event Configuration command supported? | [R2]/D.10.3.4 /D.10.2.3.5 | DMCS1:O | NA |
| DMCC24 | Is the generation of GetCIN command supported? | [R2]/D.10.3.4 /D.10.2.3.6 | DMCS1:O | NA |

### Events Cluster attributes and functions

Table 52 – Events cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| EVCS1 | Is the Events Cluster supported as a server? | [R2]/D.11 | O | Y |
| EVCS2 | Is the reception of GetEventLog command supported? | [R2]/D.11.2.3.1 | EVCS1:O | Y  EP:17 |
| EVCS3 | Is the reception of ClearEventLogRequest command supported? | [R2]/D.11.2.3.2 | EVCS1:O | N |
| EVCS4 | Is the generation of PublishEvent command supported? | [R2]/D.11.2.4.1 | EVCS1:O | N |
| EVCS5 | Is the generation of PublishEventLog command supported? | [R2]/D.11.2.4.2 | EVCS1:O | N |
| EVCS6 | Is the generation of ClearEventLogResponse command supported? | [R2]/D.11.2.4.3 | EVCS1:O | N |

Table 53 – Events cluster client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| EVCC1 | Is the Events Cluster supported as a client? | [R2]/D.11 | O | Y |
| EVCC2 | Is the reception of PublishEvent command supported? | [R2]/D.11.3.3 /D.11.2.4.1 | DMCS1:O | Y  EP:17 |
| EVCC3 | Is the reception of PublishEventLog command supported? | [R2]/D.11.3.3 /D.11.2.4.2 | DMCS1:O | Y  EP:17 |
| EVCC4 | Is the reception of ClearEventLogResponse command supported? | [R2]/D.11.3.3 /D.11.2.4.3 | DMCS1:O | N |
| EVCC5 | Is the generation of GetEventLog command supported? | [R2]/D.11.3.4 /D.11.2.3.1 | DMCS1:O | N |
| EVCC6 | Is the generation of ClearEventLogRequest command supported? | [R2]/D.11.3.4 /D.11.2.3.2 | DMCS1:O | N |

### Energy Management Cluster attributes and functions

Table 54 – Energy Management cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| EMCS1 | Is the Energy Management Cluster supported as a server? | [R2]/D.12 | O | N |
| EMCS2 | Is the LoadControlState attribute supported? | [R2]/D.12.2.2.1 | EMCS1:M | NA |
| EMCS3 | Is the CurrentEventID attribute supported? | [R2]/D.12.2.2.2 | EMCS1:M | NA |
| EMCS4 | Is the CurrentEventStatus attribute supported? | [R2]/D.12.2.2.3 | EMCS1:M | NA |
| EMCS5 | Is the ConformanceLevel attribute supported? | [R2]/D.12.2.2.4 | EMCS1:M | NA |
| EMCS6 | Is the MinimumOffTime attribute supported? | [R2]/D.12.2.2.5 | EMCS1:M | NA |
| EMCS7 | Is the MinimumOnTime attribute supported? | [R2]/D.12.2.2.5 | EMCS1:M | NA |
| EMCS8 | Is the MinimumCyclePeriod attribute supported? | [R2]/D.12.2.2.5 | EMCS1:M | NA |
| EMCS9 | Is the reception of ManageEvent command supported? | [R2]/D.12.2.4.1 | EMCS1:M | NA |
| EMCS10 | Is the generation of ReportEventStatus command supported? | [R2]/D.12.2.5.1 | EMCS1:M | NA |

Table 55 – Energy Management cluster client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| EMCC1 | Is the Energy Management Cluster supported as a client? | [R2]/D.12 | O | N |
| EMCC2 | Is the reception of ReportEventStatus command supported? | [R2]/D.12.3.3 /D.12.2.5.1 | EMCC1:M | NA |
| EMCC3 | Is the generation of ManageEvent command supported? | [R2]/D.12.3.4 /D.12.2.4.1 | EMCC1:M | NA |

### MDU Pairing Cluster attributes and functions

Table 56 – MDU Pairing cluster server capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| MDUCS1 | Is the MDU Pairing Cluster supported as a server? | [R2]/D.13 | O | N |
| MDUCS2 | Is the generation of Pairing Response command supported? | [R2]/D.13.2.3.1 | MDUCS1:O | NA |
| MDUCS3 | Is the reception of Pairing Request command supported? | [R2]/D.13.3.3.1 | MDUCS1:M | NA |

Table 57 – MDU Pairing cluster client capabilities

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| MDUCC1 | Is the MDU Pairing Cluster supported as a client? | [R2]/D.13 | O | N |
| MDUCC2 | Is the reception of Pairing Response command supported? | [R2]/D.13.2.3.1 | MDUCC1:O | NA |
| MDUCC3 | Is the generation of Pairing Request command supported? | [R2]/D.13.3.3.1 | MDUCC1:M | NA |

### Support on Non SE clusters

List in the below section all non SE clusters supported on the submitted product:

1. Bsic
2. Identify
3. Alarms
4. Time
5. Key Establishment



|  |  |  |
| --- | --- | --- |
| Project | ZigBee Alliance | |
| Title | **ZigBee Smart Energy PICS** | |
| Date Submitted | April 2012 | |
| Source | Rob Alexander  Ember, Inc.  25 Thomson Place  Boston, MA 02210 | Voice: 617-951-1244  Fax:  E-mail: rob.alexander@ember.com |
| Re: | **Error! Unknown document property name.** r**Error! Unknown document property name.** | |
| Abstract | This document lists PICS for the Over-the-air Bootload cluster as defined by the Smart Energy Profile | |
| Purpose | Provides a form whereby developers can proffer a statement of conformance to be tested under profile testing. | |
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| Release | The contributor acknowledges and accepts that this contribution will be posted in the member area of the ZigBee web site. | |

|  |  |
| --- | --- |
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References

The following standards contain provisions, which, through reference in this document, constitute provisions of this standard. All the standards listed are normative references. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

## ZigBee Alliance documents

1. ZigBee document 053474r18: ZigBee Specification 2007
2. ZigBee document 105638r09: ZigBee Smart Energy Profile Specification Revision 16
3. ZigBee document 075123r03, ZigBee Cluster Library Specification
4. ZigBee document 04300r08: ZigBee Network Layer PICS
5. ZigBee document 064147r07: ZigBee Application Layer PICS
6. ZigBee document 043171r04: ZigBee Security Layer PICS
7. ZigBee document 064113r07: ZigBee Cluster Library PICS
8. ZigBee document 08006r03: ZigBee 2007 Layer PICS and Stack Profiles
9. ZigBee document number 095264r16: ZigBee OTA Upgrade Cluster Specification
10. ZigBee document number 095284r06: ZigBee OTA Upgrade Cluster PICS
11. ZigBee document number 095473r03: ZigBee OTA Upgrade Cluster Test Specification

## IEEE documents

1. IEEE Standard for Part 15.4: Wireless Medium Access Control (MAC) and Physical Layer (PHY) specifications for Low Rate Wireless Personal Area Networks (LR-WPANs), 2003.

## ISO documents

1. ISO/IEC 9646-1:1991, Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts.
2. ISO/IEC 9646-7:1995, Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7. Implementation conformance statements.

Change history

The following table shows the change history for this specification.

Table 1 – Revision change history

|  |  |  |
| --- | --- | --- |
| Revision | Version | Description |
| R00 | - | Initial draft |
| R01 | 0.1 | Added OTA Upgrade Cluster parameters, attributes and functions |
| R02 | 0.1 | Cleanup typos and fix errors |
| R03 | 0.1 | Turn on track changes.  Added OTA Upgrade Recovery section. |
| R04 | 0.1 | Updates based on revision 08 of OTA Upgrade cluster specification (095264). |
| R05 | 0.1 | Updates based on revision 12 of OTA Upgrade cluster specification |
| R06 | 0.9 | The document is badly out of date and formatted poorly. So I have completely recreated it based off the SE1.1 PICS to insure correct formatting, and then imported the appropriate PICS items. I added, changed, and removed other items that were not up-to-date. |
| R07 |  | ? |
| R08 | 1.0 | Smart Energy 1.1 Release including support for OTA |
| R09 | 1.1 | Smart Energy 1.1.1 Release  CCB 1454  CCB 1374 |

1. Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a given standard. Such a statement is called a protocol implementation conformance statement (PICS).

## Scope

This document provides the protocol implementation conformance statement (PICS) proforma for the ZigBee specifications cited in Reference [R2] in compliance with the relevant requirements, and in accordance with the relevant guidance, given in ISO/IEC 9646-7.

This document addresses the ZigBee SE Application Profile.

## Purpose

The supplier of a protocol implementation claiming to conform to the ZigBee SE Application Profile shall complete the following PICS proforma and accompany it with the information necessary to identify fully both the supplier and the implementation.

The PICS is in the form of answers to a set of questions in the PICS proforma. The questions in a proforma consist of a systematic list of protocol capabilities and options as well as their implementation requirements. The implementation requirement indicates whether implementation of a capability is mandatory, optional, or conditional depending on options selected. When a protocol implementer answers questions in a PICS proforma, they would indicate whether an item is implemented or not, and provide explanations if an item is not implemented.

1. Abbreviations and special symbols

Notations for requirement status:

|  |  |
| --- | --- |
| M | Mandatory |
| O | Optional |
| O.n | Optional, but support of at least one of the group of options labeled O.n is required. |
| N/A | Not applicable |
| X | Prohibited |
| *Item Number:* :*Status* | Status is conditional on support of item number |

“*Item Number*”: Conditional, status dependent upon the support marked for the “*Item Number*”.

For example, FD1: O.1 indicates that the status is optional but at least one of the features described in FD1 is required to be implemented, if this implementation is to follow the standard of which this PICS Proforma is a part.

1. Instructions for completing the PICS proforma

If a given implementation is claimed to conform to this standard, the actual PICS proforma to be filled in by a supplier shall be technically equivalent to the text of the PICS proforma in this annex, and shall preserve the numbering and naming and the ordering of the PICS proforma.

A PICS which conforms to this document shall be a conforming PICS proforma completed in accordance with the instructions for completion given in this annex.

The main part of the PICS is a fixed-format questionnaire, divided into five tables. Answers to the questionnaire are to be provided in the rightmost column, either by simply marking an answer to indicate a restricted choice (such as Yes or No), or by entering a value, set, or range of values.

1. Identification of the implementation

**Implementation under test (IUT) identification**

IUT name:

EK410-UK

IUT version:

Zigbee (ZC 31.48)

STM32: 02.38

PCB 48UBCIFC.SGI V0.8

**System under test (SUT) identification**

SUT name: PC Connected Via USB

Software Version:

CATT V0.8.50

Hardware Version: None

Operating system (optional): Windows 7

**Specification Versions Implemented**

OTA Specification Document Number (include revision): 095264r19

OTA Test Specification Document (include revision): 095473r06

**Product supplier**

Name: Itron Metering Solutions UK Ltd

Address:

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Telephone number: +44 (01394) 694400

Email address:

Additional information: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Additional information: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PICS/System conformance statement**

1. Identification of the protocol

This PICS proforma applies to ZigBee SE Application Profile, cited in Reference [R2].

1. Global statement of conformance

The implementation described in this PICS proforma meets all of the mandatory requirements of the referenced standards:

Application Profile: ZigBee SE – 075356r16

Cluster Profile : Over-the-air Bootload – 095264r16





Note -- Answering ‘No’ indicates non-conformance to the specified protocol standard. Non-supported mandatory capabilities are to be identified in the following tables, with an explanation by the implementer explaining why the implementation is non-conforming.

The supplier will have fully complied with the requirements for a statement of conformance by completing the statement contained in this sub-clause. That means, by clicking the above, the statement of conformance is complete.

1. PICS proforma tables

The following tables are composed of the detailed questions to be answered, which make up the PICS proforma.

## OTA Upgrade Device Classes

Table 2 - OTA Upgrade Device Classes

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| OUDC1 | Is the OTA upgrade cluster supported as an upgrade client? | [R9] | O | N |
| OUDC2 | Is the OTA upgrade cluster supported as an upgrade server? | [R9] | O | [Y] |

Table 3 - Zigbee Device Classes

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| ZDC1 | Is the device capable of acting as a ZigBee Coordinator (ZC) or a ZigBee Router (ZR)? | [R1] | O | [Y] |
| ZDC2 | Is the device capable of acting as a ZigBee End Device (ZED)? | [R1] | O | N |

## OTA Upgrade Image

Table 4 - OTA Upgrade Image

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| OUI1 | Is the OTA upgrade file format supported? | [R9] 6.3 | **M** | Y |
| OUI2 | Is the OTA upgrade file format supported with the ECDSA signature tag? | [R2] D.8.1 | **M** | Y |

## OTA Upgrade Server Discovery

Table 5 - OTA Upgrade Server Discovery

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| OUSD1 | Is Upgrade Server Discovery supported? | [R9] 6.4 | OUDC1:**M** | NA |

## OTA Upgrade Attributes

Table 6 - OTA Upgrade Cluster Client Attributes

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| OUA1 | Does the device support the *UpgradeServerID* attribute? | [R9] 6.7.1 | OUDC1:**M** | NA |
| OUA2 | Does the device support the *FileOffset* attribute? | [R9] 6.7.2 | OUDC1:O | NA |
| OUA3 | Does the device support the *CurrentFileVersion* attribute? | [R9] 6.7.3 | OUDC1:O | NA |
| OUA4 | Does the device support the *CurrentZigbeeStackVersion* attribute? | [R9] 6.7.4 | OUDC1:O | NA |
| OUA5 | Does the device support the *DownloadFileVersion* attribute? | [R9] 6.7.5 | OUDC1:O | NA |
| OUA6 | Does the device support the *DownloadZigbeeStackVersion* attribute? | [R9] 6.7.6 | OUDC1:O | NA |
| OUA7 | Does the device support the *ImageUpgradeStatus* attribute? | [R9] 6.7.7 | OUDC1:**M** | NA |
| OUA8 | Does the device support the *ManufacturerID* attribute? | [R9] 6.7.8 | OUDC1:O | NA |
| OUA9 | Does the device support the *ImageTypeID* attribute? | [R9] 6.7.9 | OUDC1:O | NA |

## OTA Incoming Message Processing

Table 7 – OTA Incoming Message Processing Client

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| OIMPC1 | Does the device support reception and processing of the *Image Notify* message? | [R9] 6.10.3 | OUDC1:**O [[12]](#footnote-12)** | NA |
| OIMPC2 | Does the device support reception and processing of the *Query Next Image Response* message? | [R9] 6.10.5 | OUDC1:**M** | NA |
| OIMPC3 | Does the device support reception and processing of the *Image Block Response* message? | [R9] 6.10.8 | OUDC1:**M** | NA |
| OIMPC4 | Does the device support reception and processing of the *Upgrade End Response* message? | [R9] 6.10.10 | OUDC1:**M** | NA |
| OIMPC5 | Does the device support reception and processing of the *Query Specific File Response* message? | [R9] 6.10.12 | OUDC1:O | NA |

Table 8 - OTA Incoming Message Processing Server

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| OIMPS1 | Does the device support reception and processing of the *Query Next Image Request* message? | [R9] 6.10.4 | OUDC2:**M** | Y |
| OIMPS2 | Does the device support reception and processing of the *Image Block Request* message? | [R9] 6.10.6 | OUDC2:**M** | Y |
| OIMPS3 | Does the device support reception and processing of the *Upgrade End Request* message? | [R9] 6.10.9 | OUDC2:**M** | Y |
| OIMPS4 | Does the device support reception and processing of the *Image Page Request* message? | [R9] 6.10.7 | OUDC2:O | N |
| OIMPS5 | Does the device support reception and processing of the *Query Specific File Request* message? | [R9] 6.10.12 | OUDC2:O | N |

## OTA Outgoing Message Transmission

Table 9 - OTA Outgoing Message Transmission Client

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| OOMTC1 | Does the device support transmission of the *Query Next Image Request* message? | [R9] 6.10.4 | OUDC1:**M** | N |
| OOMTC2 | Does the device support transmission of the *Image Block Request* message? | [R9] 6.10.6 | OUDC1:**M** | N |
| OOMTC3 | Does the device support transmission of the *Upgrade End Request* message? | [R9] 6.10.9 | OUDC1:**M** | N |
| OOMTC4 | Does the device support transmission of the *Image Page Request* message? | [R9] 6.10.7 | OUDC1:O | N |
| OOMTC5 | Does the device support transmission of the *Query Specific File Request* message? | [R9] 6.10.12 | OUDC1:O | N |
| OOMTS6 | Does the device send all supported OTA messages using APS encryption (except broadcast messages)? | [R2] D.8.1 | OUDC1:**M** | N |

Table 10 - OTA Outgoing Message Transmission Server

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| OOMTS1 | Does the device support transmission of the *Image Notify* message? | [R9] 6.10.3 | OUDC2:O | N |
| OOMTS2 | Does the device support transmission of the *Query Next Image Response* message? | [R9] 6.10.5 | OUDC2:**M** | Y |
| OOMTS3 | Does the device support transmission of the *Image Block Response* message? | [R9] 6.10.8 | OUDC2:**M** | Y |
| OOMTS4 | Does the device support transmission of the *Upgrade End Response* message? | [R9] 6.10.10 | OUDC2:**M** | Y |
| OOMTS5 | Does the device support transmission of the *Query Specific File Response* message? | [R9] 6.10.12 | OUDC2:O | N |
| OOMTS6 | Does the device send all supported OTA messages using APS encryption (except broadcast messages)? | [R2] D.8.1 | OUDC2:**M** | Y |

## OTA Upgrade Policies

Table 11 - OTA Upgrade Policies Client

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| OUPC1 | Does the device support cryptographic verification of images signed using ECDSA? | [R2] D.8.1 | OUDC1:**M** | N |
| OUPC2 | Does the device support aborting an active download on reception of an *Image Block Response* with a status of ABORT? | [R9] 6.10.8 | OUDC1:**M** | N |
| OUPC3 | Does the device support an abort after a file has been downloaded on reception of a Default Response with a status of ABORT in response to an *Upgrade End Request*? | [R9] 6.10.9.4 | OUDC1:**M** | N |
| OUPC4 | Does the device support processing an *Image Block Response* with a status of WAIT\_FOR\_DATA? | [R9] 6.10.8.4 | OUDC1:**M** | N |
| OUPC5 | Does the device support sending REQUIRE\_MORE\_IMAGE in the *Upgrade End Request* after it has finished a download (i.e. does it require multiple images to upgrade)? | [R9] 6.10.9.3 | OUDC1:O | N |
| OUPC6 | Does the device support a time delayed upgrade sent back from the server in the *Upgrade End Response* message? | [R9] 6.10.10.4 | OUDC1:**M** | N |
| OUPC7 | Does the device support waiting for a separate Upgrade End response command from the OTA server at a later time? (i.e. the server sends an *Upgrade End Response* with a *UpgradeTime* value of 0xFFFFFFFF) | [R9] 6.8.4 | OUDC1:**M** | N |
| OUPC8 | Does the device always respond to a unicast *Image Notification* message from the OTA server? | [R9] 6.10.3.4 | ZDC1 & OUDC1:**M [[13]](#footnote-13)** | N |
| OUPC9 | Does the device support periodic discovery of an OTA server if it has not found one previous in the network, at a rate of at least once per day? | [R2] D.8.1 | OUDC1:**M** | N |
| OUPC10 | Does the device support periodic query for a new upgrade image at a rate of at least once per day? | [R2] D.8.1 | OUDC1:**M** | N |
| OUPC11 | Does the device support sending new *Image Block Request* commands when it is downloading a new image at a rate of at least once per hour? | [R2] D.8.1 | OUDC1:**M** | N |

Table 12 - OTA Upgrade Policies Server

| Item number | Item description | Reference | Status | Support |
| --- | --- | --- | --- | --- |
| OUPS1 | Does the server support responding to a *Query Next Image Request* with a response that has a version number higher than in the request (upgrade)? | [R9] 6.10.5 | OUDC2:**M** | Y |
| OUPS2 | Does the server support responding to a *Query Next Image Request* with a response that has a version number lower than in the request (downgrade)? | [R9] 6.10.5 | OUDC2:O | Y |
| OUPS3 | Does the server support responding to a *Query Next Image Request* with a response that has a version number the same as in the request (re-install)? | [R9] 6.10.5 | OUDC2:O | Y |
| OUPS4 | Does the server support sending a *Default Response* with status of NO\_IMAGE\_AVAILABLE when it receives an *Image Block Request* for a file that it does not have? | [R9] 6.10.6.5.2 | OUDC2:**M** | Y |

1. O.1 – Device under test must select only one of these options. Devices under test supporting multiple ZigBee device types must serially re-test using each supported ZigBee device type. [↑](#footnote-ref-1)
2. O.2 – Device under test must be deployed on either of the ZigBee or ZigBee PRO stack profiles. [↑](#footnote-ref-2)
3. O.3 – Device under test must select at least one and may select more than one of the SE device descriptions. If multiple SE device descriptions are supported in the same device then each of the supported device descriptions must be deployed on individual endpoints within the device under test. [↑](#footnote-ref-3)
4. CCB 1886 [↑](#footnote-ref-4)
5. CCB 1999 [↑](#footnote-ref-5)
6. CCB 1999 [↑](#footnote-ref-6)
7. CCB 1999 [↑](#footnote-ref-7)
8. CCB 1999 [↑](#footnote-ref-8)
9. CCB 1999 [↑](#footnote-ref-9)
10. CCB 1999 [↑](#footnote-ref-10)
11. CCB 1999 [↑](#footnote-ref-11)
12. CCB 1454 and 1374 [↑](#footnote-ref-12)
13. Only devices that are both a ZDC1 and OUDC1 are required to support this. [↑](#footnote-ref-13)