3.5 Identify

3.5.1 Overview

Please see Chapter 2 for a general cluster overview defining cluster architecture, revision, classification, identification, etc.

Attributes and commands to put a device into an Identification mode (e.g., flashing a light), that indicates to an observer – e.g., an installer – which of several devices it is, also to request any device that is identifying itself to respond to the initiator.

Note that this cluster cannot be disabled, and remains functional regardless of the setting of the *DeviceEnable* attribute in the Basic cluster.

3.5.1.1 Revision History

The global *ClusterRevision* attribute value SHALL be the highest revision number in the table below.

Rev	Description
1	global mandatory *Cluster Revision* attribute added
2	CCB 2808

3.5.1.2 Classification

Hierarchy	Role	PICS Code
Base	Utility	I

3.5.1.3 Cluster Identifiers

Identifier	Name
0x0003	Identify

3.5.2 Server

3.5.2.1 Dependencies

None

3.5.2.2 Attributes

The server supports the attribute shown in Table 3-31.

Table 3-31. Attributes of the Identify Server Cluster

Identifier	Name	Type	Range	Access	Default	M/O
0x0000	*IdentifyTime*	uint16	0x0000 to 0xffff	RW	0	M

3.5.2.2.1 *IdentifyTime* Attribute

The *IdentifyTime* attribute specifies the remaining length of time, in seconds, that the device will continue to identify itself.

If this attribute is set to a value other than 0x0000 then the device SHALL enter its identification procedure, in order to indicate to an observer which of several devices it is. It is recommended that this procedure consists of flashing a light with a period of 0.5 seconds. The *IdentifyTime* attribute SHALL be decremented every second.

If this attribute reaches or is set to the value 0x0000 then the device SHALL terminate its identification procedure.

3.5.2.3 Commands Received

The server side of the identify cluster is capable of receiving the commands listed in Table 3-32.

Table 3-32. Received Command IDs for the Identify Cluster

Command Identifier	Description	M/O
0x00	Identify	M
0x01	Identify Query	M
0x40	Trigger effect	O

3.5.2.3.1 Identify Command

The identify command starts or stops the receiving device identifying itself.

3.5.2.3.1.1 Payload Format

The identify query response command payload SHALL be formatted as illustrated in Figure 3-7.

Figure 3-7. Format of Identify Query Response Command Payload

Octets	2
Data Type	uint16
Field Name	Identify Time

3.5.2.3.1.2 Effect on Receipt

On receipt of this command, the device SHALL set the *IdentifyTime* attribute to the value of the Identify Time field. This then starts, continues, or stops the device's identification procedure as detailed in 3.5.2.2.1.

3.5.2.3.2 Identify Query Command

The identify query command allows the sending device to request the target or targets to respond if they are currently identifying themselves.

This command has no payload.

3.5.2.3.2.1 Effect on Receipt

On receipt of this command, if the device is currently identifying itself then it SHALL generate an appropriate Identify Query Response command, see 3.5.2.4.1 and unicast it to the requestor. If the device is not currently identifying itself it SHALL take no further action.

3.5.2.3.3 Trigger Effect Command

The *Trigger Effect* command allows the support of feedback to the user, such as a certain light effect. It is used to allow an implementation to provide visual feedback to the user under certain circumstances such as a color light turning green when it has successfully connected to a network. The use of this command and the effects themselves are entirely up to the implementer to use whenever a visual feedback is useful but it is not the same as and does not replace the identify mechanism used during commissioning.

The payload of this command SHALL be formatted as illustrated in Figure 3-8.

Figure 3-8. Format of the Trigger Effect Command

Octets	1	1
Data Type	enum8[21]	enum8
Field Name	Effect identifier	Effect variant

3.5.2.3.3.1 Effect Identifier Field

The *Effect Identifier* field is 8-bits in length and specifies the identify effect to use. This field SHALL contain one of the nonreserved values listed in Table 3-33.

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Table 3-33. Values of the Effect Identifier Field of the Trigger Effect Command

Effect Identifier Field Value	Effect[22]	Notes
0x00	Blink	e.g., Light is turned on/off once.
0x01	Breathe	e.g., Light turned on/off over 1 second and repeated 15 times.
0x02	Okay	e.g., Colored light turns green for 1 second; noncolored light flashes twice.
0x0b	Channel change	e.g., Colored light turns orange for 8 seconds; noncolored light switches to maximum brightness for 0.5s and then minimum brightness for 7.5s.
0xfe	Finish effect	Complete the current effect sequence before terminating. e.g., if in the middle of a breathe effect (as above), first complete the current 1s breathe effect and then terminate the effect.
0xff	Stop effect	Terminate the effect as soon as possible.

3.5.2.3.3.2 Effect Variant Field

The *effect variant* field is 8-bits in length and is used to indicate which variant of the effect, indicated in the *effect identifier* field, SHOULD be triggered. If a device does not support the given variant, it SHALL use the default variant. This field SHALL contain one of the non-reserved values listed in Table 3-34.

Table 3-34. Values of the Effect Variant Field of the Trigger Effect Command

Effect Variant Field Value	Description
0x00	Default

3.5.2.3.3.3 Effect on Receipt

On receipt of this command, the device SHALL execute the trigger effect indicated in the *Effect Identifier* and *Effect Variant* fields. If the *Effect Variant* field specifies a variant that is not supported on the device, it SHALL execute the default variant.

3.5.2.4 Commands Generated

The server side of the identify cluster is capable of generating the commands listed in Table 3-35.

Table 3-35. Generated Command IDs for the Identify Cluster

Command Identifier Field Value	Description	M/O
0x00	Identify Query Response	M

[22] Implementers SHOULD indicate during testing how they handle each effect.

3.5.2.4.1 Identify Query Response Command

The identify query response command is generated in response to receiving an Identify Query command, see 3.5.2.3.2, in the case that the device is currently identifying itself.

3.5.2.4.1.1 Payload Format

The identify query response command payload SHALL be formatted as illustrated in Figure 3-9.

Figure 3-9. Format of Identify Query Response Command Payload

Octets	2
Data Type	uint16
Field Name	Timeout

3.5.2.4.1.2 Timeout Field

The Timeout field contains the current value of the *IdentifyTime* attribute, and specifies the length of time, in seconds, that the device will continue to identify itself.

3.5.2.4.1.3 Effect on Receipt

On receipt of this command, the device is informed of a device in the network which is currently identifying itself. This information MAY be particularly beneficial in situations where there is no commissioning tool. Note that there MAY be multiple responses.

3.5.3 Client

The client has no cluster specific attributes. The client generates the cluster specific commands detailed in 3.5.2.3, as required by the application. The client receives the cluster specific response commands detailed in 3.5.2.4.