

12.34.16 Profile_Name

This property, of type `CharacterString`, is the name of an object profile to which this object conforms. To ensure uniqueness, a profile name shall begin with a vendor identifier code (see Clause 23) in base-10 integer format, followed by a dash. All subsequent characters are administered by the organization registered with that vendor identifier code. The vendor identifier code that prefixes the profile name shall indicate the organization that publishes and maintains the profile. This vendor identifier need not have any relationship to the vendor identifier of the device within which the object resides.

A profile defines a set of additional properties, behavior, and/or requirements for this object beyond those specified here. This standard defines only the format of the names of profiles. If the `Profile_Location` property of this object or the `Device` object is present and nonempty, then the value of this property shall be the name of a CSML type defined in an xdd file referred to by the `Profile_Location` property.

12.35 Access Credential Object Type

The Access Credential object type defines a standardized object whose properties represent the externally visible characteristics of a credential that is used for authentication and authorization when requesting access.

The credential can be owned by an access user of any type. Access user ownership is represented by a reference to an Access User object.

The Access Credential object is a container of related authentication factors. Each authentication factor in the credential can be individually enabled or disabled. An Access Credential object can represent a single authentication factor, a group of authentication factors each having identical access rights, or multiple authentication factors required for multi-factor authentications.

The access rights assigned to the credential are specified by referencing Access Rights objects. Each reference can be individually enabled or disabled.

The Credential_Status indicates the validity of this credential for authentication. The status is derived from other properties of this object or can be set from an external process.

The credential can be restricted in its use for authentication. It can be restricted based on activation and expiry dates, the number of days it can be used or the number of uses. It can be disabled if it is not used for a specified number of days. The credential can be exempted from authorization checks such as passback violation enforcement and occupancy enforcements. It can indicate whether an extended time is required to pass through a door.

A threat authority can be specified for the credential. If this value is lower than the threat level at the access controlled point, then access is denied.

The credential can be flagged to be traced. Any access controlled point recognizing this credential shall generate a corresponding TRACE access event.

When a credential is represented in multiple devices, the representing Access Credential objects may not have the same Object_Identifier in each device; however, they may be identified using the Global_Identifier property. It is a local matter as to how these objects are synchronized.

Table 12-40. Properties of the Access Credential Object Type

Property Identifier	Property Datatype	Conformance Code
Object_Identifier	BACnetObjectIdentifier	R
Object_Name	CharacterString	R
Object_Type	BACnetObjectType	R
Description	CharacterString	O
Global_Identifier	Unsigned32	W
Status_Flags	BACnetStatusFlags	R
Reliability	BACnetReliability	R
Credential_Status	BACnetBinaryPV	R
Reason_For_Disable	BACnetLIST of BACnetAccessCredentialDisableReason	R
Authentication_Factors	BACnetARRAY[N] of BACnetCredentialAuthenticationFactor	R
Activation_Time	BACnetDateTime	R
Expiration_Time	BACnetDateTime	R
Credential_Disable	BACnetAccessCredentialDisable	R
Days_Remaining	INTEGER	O ¹
Uses_Remaining	INTEGER	O
Absentee_Limit	Unsigned	O ¹
Belongs_To	BACnetDeviceObjectReference	O
Assigned_Access_Rights	BACnetARRAY[N] of BACnetAssignedAccessRights	R
Last_Access_Point	BACnetDeviceObjectReference	O
Last_Access_Event	BACnetAccessEvent	O

Table 12-40. Properties of the Access Credential Object Type (*continued*)

Property Identifier	Property Datatype	Conformance Code
Last_Use_Time	BACnetDateTime	O
Trace_Flag	BOOLEAN	O
Threat_Authority	BACnetAccessThreatLevel	O
Extended_Time_Enable	BOOLEAN	O
Authorization_Exemptions	BACnetLIST of BACnetAuthorizationExemption	O
Reliability_Evaluation_Inhibit	BOOLEAN	O
Property_List	BACnetARRAY[N] of BACnetPropertyIdentifier	R
Tags	BACnetARRAY[N] of BACnetNameValue	O
Profile_Location	CharacterString	O
Profile_Name	CharacterString	O

¹ If this property is present, then the property Last_Use_Time shall also be present.

12.35.1 Object_Identifier

This property, of type BACnetObjectIdentifier, is a numeric code that is used to identify the object. It shall be unique within the BACnet device that maintains it.

12.35.2 Object_Name

This property, of type CharacterString, shall represent a name for the object that is unique within the BACnet device that maintains it. The minimum length of the string shall be one character. The set of characters used in the Object_Name shall be restricted to printable characters.

12.35.3 Object_Type

This property, of type BACnetObjectType, indicates membership in a particular object type class. The value of this property shall be ACCESS_CREDENTIAL.

12.35.4 Description

This property, of type CharacterString, is a string of printable characters whose content is not restricted.

12.35.5 Global_Identifier

This property, of type Unsigned32, is a unique identifier which is used to globally identify the credential this object represents. This value may be used to identify Access Credential objects in multiple devices which represent the same credential.

If this value is assigned, it shall be unique internetwork-wide and all Access Credential objects in all devices which represent this credential shall have this value. A value of zero indicates that no global identifier is assigned.

12.35.6 Status_Flags

This property, of type BACnetStatusFlags, represents four Boolean flags that indicate the general "health" of this object. A more detailed status may be determined by reading the properties that are linked to these flags. The relationship between individual flags is not defined by the protocol. The four flags are

{IN_ALARM, FAULT, OVERRIDDEN, OUT_OF_SERVICE}

where:

IN_ALARM The value of this flag shall be logical FALSE (0).

FAULT Logical TRUE (1) if the Reliability is not NO_FAULT_DETECTED, otherwise logical FALSE (0).

OVERRIDDEN The value of this flag shall be logical FALSE (0).

OUT_OF_SERVICE The value of this flag shall be logical FALSE (0).

12.35.7 Reliability

The Reliability property, of type BACnetReliability, provides an indication of whether this object is "reliable" as far as the BACnet device can determine and, if not, why.

12.35.8 Credential_Status

This property, of type BACnetBinaryPV, specifies whether the credential is active or inactive. Only the value ACTIVE enables the credential to be used for authentication. While the list in property Reason_For_Disable is nonempty, the status of the credential shall be INACTIVE, otherwise it shall be ACTIVE.

When an inactive credential is used, the authentication of this credential shall fail and access to the access point shall be denied. In this case, the Access_Event property of the Access Point object where the credential has attempted access shall be set to the value which corresponds to the reason this credential is disabled, as specified in the Reason_For_Disable property. See Clause 12.36.9.1.

12.35.9 Reason_For_Disable

This property, of type BACnetLIST of BACnetAccessCredentialDisableReason, contains a list of disable-reasons why the credential has been disabled. The credential can be disabled for multiple reasons at the same time. While the Credential_Status property has a value INACTIVE, this list shall not be empty. When an entry is removed from this list that results in the list becoming empty, the Credential_Status shall be set to ACTIVE.

The disable-reasons for which the credential can be disabled are as follows:

DISABLED	The credential is disabled for unspecified reasons.
DISABLED_NEEDS_PROVISIONING	The credential needs further provisioning, which may include vendor proprietary data.
DISABLED_UNASSIGNED	The credential is not currently assigned to any access user. This status is assigned only if the property Belongs_To is present and contains instance 4194303 in the object identifier.
DISABLED_NOT_YET_ACTIVE	The credential is not yet valid at this time. The current time is before the Activation_Time.
DISABLED_EXPIRED	The credential is no longer valid. The current time is after the Expiration_Time.
DISABLED_LOCKOUT	Too many retries in multi-factor authentications have been performed.
DISABLED_MAX_DAYS	The maximum number of days for which this credential is valid for has been exceeded.
DISABLED_MAX_USES	The maximum number of uses for which this credential is valid for has been exceeded.
DISABLED_INACTIVITY	The credential has exceeded the allowed period of inactivity.
DISABLED_MANUAL	The credential is commanded to be disabled by a human operator.
<Proprietary Enum Values>	A vendor may use other proprietary enumeration values to indicate disable reasons other than those defined by this standard. For proprietary extensions of this enumeration, see Clause 23.1 of this standard.

12.35.9.1 Conditions for setting the Access_Event property of the Access Point object

When access is requested using a credential that is inactive, access shall not be granted. In this case the Access Point object representing the access point where access was requested shall set its Access_Event property as defined in the following table:

Table 12-41. Credential Disable Reasons and Applicable Access Events

Credential Disable Reason	Applicable Access Event
DISABLED_NEEDS_PROVISIONING	DENIED_CREDENTIAL_NOT_PROVISIONED
DISABLED_UNASSIGNED	DENIED_CREDENTIAL_UNASSIGNED
DISABLED_NOT_YET_ACTIVE	DENIED_CREDENTIAL_NOT_YET_ACTIVE
DISABLED_LOCKOUT	DENIED_CREDENTIAL_LOCKOUT
DISABLED_MAX_DAYS	DENIED_CREDENTIAL_MAX_DAYS
DISABLED_MAX_USES	DENIED_CREDENTIAL_MAX_USES
DISABLED_INACTIVITY	DENIED_CREDENTIAL_INACTIVITY
DISABLED_MANUAL	DENIED_CREDENTIAL_MANUAL_DISABLE
DISABLED	DENIED_CREDENTIAL_DISABLED

If Reason_For_Disable contains multiple values, it is a local matter as to which corresponding access event the Access_Event property is set to.

12.35.10 Authentication_Factors

This property, of type BACnetARRAY[N] of BACnetCredentialAuthenticationFactor, specifies the authentication factors that belong to this credential. Each element of the array has two fields:

Disable This field, of type BACnetAccessAuthenticationFactorDisable, specifies whether the corresponding authentication factor is disabled or not. Any value other than NONE indicates that the authentication factor is not valid for authentication.

The following authentication factor disable values are defined:

DISABLED	The physical authentication factor is disabled for unspecified reasons.
DISABLED_LOST	The physical authentication factor is reported to be lost.
DISABLED_STOLEN	The physical authentication factor is reported to be stolen.
DISABLED_DAMAGED	The physical authentication factor is reported to be damaged.
DISABLED_DESTROYED	The physical authentication factor is reported to be destroyed.
<Proprietary Enum Values>	A vendor may use other proprietary enumeration values to specify disable values other than those defined by this standard. For proprietary extensions of this enumeration, see Clause 23.1 of this standard.

Authentication-Factor This field, of type BACnetAuthenticationFactor, specifies the authentication factor that belongs to this credential.

Any access attempt using an authentication factor which is disabled shall fail. In this case, the Access_Event property of the Access Point object where this authentication factor was used shall be set to the value corresponding to the reason why it was disabled. See the following table.

Table 12-42. Authentication Factor Disable and Applicable Access Events

Authentication Factor Disable	Applicable Access Event
DISABLED	DENIED_AUTHENTICATION_FACTOR_DISABLED
DISABLED_LOST	DENIED_AUTHENTICATION_FACTOR_LOST
DISABLED_STOLEN	DENIED_AUTHENTICATION_FACTOR_STOLEN
DISABLED_DAMAGED	DENIED_AUTHENTICATION_FACTOR_DAMAGED
DISABLED_DESTROYED	DENIED_AUTHENTICATION_FACTOR_DESTROYED

12.35.10.1 Initializing New Array Elements When the Array Size is Increased

If the size of the Authentication_Factors array is increased without initial values being provided, then the new array elements for which no initial value is provided shall be initialized to contain DISABLE for the Disable field and an authentication factor with format type UNDEFINED for the Authentication-Factor field.

12.35.11 Activation_Time

This property, of type BACnetDateTime, specifies the date and time at or after which the credential becomes active. If the current time is before the activation time, the credential shall be disabled and the value DISABLED_NOT_YET_ACTIVE shall be added to the Reason_For_Disable list. The value DISABLED_NOT_YET_ACTIVE shall be removed from the list when this condition no longer applies. If all of the octets of the BACnetDateTime value contain a value of X'FF', then the credential has an activation time of 'start of time'.

12.35.12 Expiration_Time

This property, of type BACnetDateTime, specifies the date and time after which the credential will expire. This defines the end of the validity period of the credential. If the current time is after the expiry time, the credential shall be disabled and the value DISABLED_EXPIRED shall be added to the Reason_For_Disable list. The value DISABLED_EXPIRED shall be removed from the list when this condition no longer applies. If all of the fields of the BACnetDateTime value contain a value of X'FF', then the credential has an expiry time of 'end-of-time'.

12.35.13 Credential_Disable

This property, of type BACnetAccessCredentialDisable, contains a value that disables a credential for reasons external to this object. If this property is writable, then it is the mechanism by which an operator or external process may disable the credential.

When this property is changed, any disable reason added to the Reason_For_Disable list as a result of a previous change of this property shall be removed from that list. When this property takes on any value other than NONE, the corresponding disable-reason value shall be added to the Reason_For_Disable list.

The following credential disable values are defined:

NONE	The credential has not been disabled by an operator or external process.
DISABLE	The credential has been disabled for unspecified reasons. The disable-reason value DISABLED shall be added to the Reason_For_Disable property.
DISABLE_MANUAL	The credential has been disabled by a human operator. The disable-reason value DISABLED_MANUAL shall be added to the Reason_For_Disable property.
DISABLE_LOCKOUT	The credential is disabled because it has been locked out by an external process. The disable-reason value DISABLED_LOCKOUT shall be added to the Reason_For_Disable property.

<Proprietary Enum Values> A vendor may use other proprietary enumeration values for disabling a credential other than those defined by this standard. A disable-reason value shall be added to the Reason_For_Disable property. It is a local matter which disable reason is added.

For proprietary extensions of this enumeration, see Clause 23.1 of this standard.

12.35.14 Days_Remaining

This property, of type INTEGER, specifies the number of remaining days for which the credential can be used. If this property has a value greater than zero, its value shall be decremented by one when the credential this object represents is granted access at an access controlled point, and the current date is more recent than the date indicated in the property Last_Use_Time. If this property becomes zero, the Access Credential shall be disabled and the value DISABLED_MAX_DAYS shall be added to the Reason_For_Disable property. The value DISABLED_MAX_DAYS shall be removed from the Reason_For_Disable property when this property is set to a value greater than zero.

If this property is present and the credential this object represents is not limited in the days it can be used, then the value of this property shall be -1 and DISABLED_MAX_USES shall never be added to the Reason_For_Disable property.

If Days_Remaining is present, then Last_Use_Time shall also be present.

12.35.15 Uses_Remaining

This property, of type INTEGER, specifies the number of remaining uses that the credential can be used for authentication. If this property has a value greater than zero and access is granted at an access controlled point, then the value of this property shall be decremented by one. If this property becomes zero, then the Access Credential shall be disabled and the value DISABLED_MAX_USES shall be added to the Reason_For_Disable property. The value DISABLED_MAX_USES shall be removed from the Reason_For_Disable property when this property is set to a value greater than zero.

If this property is present and the credential this object represents is not limited in the number of uses, then the value of this property shall be -1 and DISABLED_MAX_USES shall never be added to the Reason_For_Disable property.

12.35.16 Absentee_Limit

This property, of type Unsigned, specifies the maximum number of consecutive days for which the credential can remain inactive (i.e. unused) before it becomes disabled. The calculation of inactivity duration is based on the time of last use as indicated by the property Last_Use_Time. If Last_Use_Time does not have a valid time and date, then the absentee limit shall be considered to not be exceeded. When the absentee limit is exceeded, the Access Credential shall be disabled and the value DISABLED_INACTIVITY shall be added to the Reason_For_Disable list. The value DISABLED_INACTIVITY shall be removed from the list when this condition no longer applies.

If Absentee_Limit is present, Last_Use_Time shall also be present.

12.35.17 Belongs_To

This property, of type BACnetDeviceObjectReference, references an Access User object that represents the owning access user (i.e. person, group, or asset). If this property is present and the credential is not assigned to an access user, this property shall contain an instance number of 4194303 in the instance part of the object identifier and in the device instance part of the device identifier, if present. The determination of whether the credential is valid for authentication, based on the value of this property, is a local matter. If the credential has not been assigned to an access user and the policy of the site requires that it be assigned, then the credential shall be disabled and the value DISABLED_UNASSIGNED shall be added to the Reason_For_Disable list. The value DISABLED_UNASSIGNED shall be removed from the list when this condition no longer applies.

12.35.18 Assigned_Access_Rights

This property, of type BACnetARRAY[N] of BACnetAssignedAccessRights, specifies the access rights assigned to this credential. The structure has two fields:

Assigned-Access-Rights	This field, of type BACnetDeviceObjectReference, refers to an Access Rights object that defines access rights assigned to this credential. Each object referenced in this field shall be an Access Rights object. Any entry which references a non-existent
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Access Rights object shall be ignored. If no access rights are specified, then this reference shall contain 4194303 in the instance part of the object identifier and in the device instance part of the device identifier, if present.

Enable

This field, of type BOOLEAN, specifies whether the access rights specified in the assigned-access-rights field is enabled (TRUE) or not (FALSE) for the credential this object represents.

12.35.18.1 Initializing New Array Elements When the Array Size is Increased

If the size of the Assigned_Access_Rights array is increased without initial values being provided, then the new array elements for which no initial value is provided shall be initialized to contain 4194303 in the instance part of the object identifier and in the device instance part of the device identifier, if present, for the Assigned-Access-Rights field, and the value FALSE for the Enable field.

12.35.19 Last_Access_Point

This property, of type BACnetDeviceObjectReference, refers to the last Access Point object where one of the authentication factors of the credential has been used. If property level COV is in effect for this property, any update of this property shall cause a COV notification to be issued, regardless of whether the value of this property changes. If the credential this object represents has never been used, then this property shall contain 4194303 in the instance part of the object identifier and in the device instance part of the device identifier, if present.

12.35.20 Last_Access_Event

This property, of type BACnetAccessEvent, shall specify the last access event generated at an access controlled point upon use of this credential. If the credential this object represents has never been used, then this property shall have a value of NONE.

12.35.21 Last_Use_Time

This property, of type BACnetDateTime, specifies the date and time of the last use of the credential at an access controlled point, independent of whether access was granted or denied. If the credential this object represents has never been used, then this property shall have the value X'FF' for all date and time octets.

12.35.22 Trace_Flag

This property, of type BOOLEAN, specifies whether the credential is being traced. When a traced credential is used at an access point, the Access_Event property of the corresponding Access Point object shall be set to TRACE.

12.35.23 Threat_Authority

This property, of type BACnetAccessThreatLevel, specifies the maximum threat level for which this credential is valid. If this value is less than the Threat_Level property of the Access Point object where the access credential is used, access is denied. If this property is not present, the threat authority of this credential is assumed to be zero.

12.35.24 Extended_Time_Enable

This property, of type BOOLEAN, specifies which command of type BACnetDoorValue shall be used to command the access door when access is granted. If extended time is enabled (TRUE), EXTENDED_PULSE_UNLOCK is used, otherwise (FALSE) PULSE_UNLOCK is used.

12.35.25 Authorization_Exemptions

This property, of type BACnetLIST of BACnetAuthorizationExemption, specifies the authorization checks from which this credential is exempt. When a credential is exempt from an authorization check, the access attempt shall not be denied due to this authorization criterion.

The following authorization exemption values are defined:

PASSBACK

The credential is exempt from passback enforcement. If a passback exemption is enabled for this credential, then the credential shall not be denied access due to passback violations.

OCCUPANCY_CHECK	The credential is exempt from occupancy enforcement. If an occupancy exemption is enabled for this credential, then the occupancy count in the Access_Zone object shall be updated as normal; however, the access credential shall not be denied access due to occupancy limit enforcement.
ACCESS_RIGHTS	The credential is exempt from standard access rights checks at the access point. If an access rights exemption is enabled for this credential, then the credential shall not be denied access due to having insufficient access rights.
LOCKOUT	The credential is exempt from lockout enforcement at an access controlled point. If a lockout exemption is enabled for this credential, then the credential shall not be denied access due to the access controlled point being locked out.
DENY	The credential is exempt from being denied access due to the Authorization_Mode property of the Access Point object having the value DENY_ALL.
VERIFICATION	The credential is exempt from requiring secondary verification at an access controlled point when the Authorization_Mode property has the value VERIFICATION_REQUIRED.
AUTHORIZATION_DELAY	The credential is exempt from an authorization delay at an access controlled point when the Authorization_Mode has the value AUTHORIZATION_DELAYED.
<Proprietary Enum Values>	<p>A vendor may use other proprietary enumeration values for exempting the credential from specific proprietary authorization checks.</p> <p>For proprietary extensions of this enumeration, see Clause 23 of this standard.</p>

12.35.26 Reliability_Evaluation_Inhibit

This property, of type BOOLEAN, indicates whether (TRUE) or not (FALSE) reliability-evaluation is disabled in the object. This property is a runtime override that allows temporary disabling of reliability-evaluation.

When reliability-evaluation is disabled, the Reliability property shall have the value NO_FAULT_DETECTED unless Out_Of_Service is TRUE and an alternate value has been written to the Reliability property.

12.35.27 Property_List

This read-only property is a BACnetARRAY of property identifiers, one property identifier for each property that exists within the object. The Object_Name, Object_Type, Object_Identifier, and Property_List properties are not included in the list.

12.35.28 Tags

This property, of type BACnetARRAY of BACnetNameValue, is a collection of tags for the object. See Clause Y.1.4 for restrictions on the string values used for the names of these tag and for a description of tagging and the mechanism by which tags are defined.

Each entry in the array is a BACnetNameValue construct which consists of the tag name and an optional value. If the tag is defined to be a "semantic tag" then it has no value, and the "value" field of the BACnetNameValue shall be absent.

While some tags may be known in advance when a device is manufactured, it is recommended that implementations consider that this kind of information might not be known until a device is deployed and to provide a means of configuration or writability of this property.

12.35.29 Profile_Location

This property, of type CharacterString, is the URI of the location of an xdd file (See Clause X.2) containing the definition of the CSML type specified by the Profile_Name property and possible other information (See Annex X). The URI is

restricted to using only the "http", "https", and "bacnet" URI schemes. See Clause Q.8 for the definition of the "bacnet" URI scheme.

If a Profile_Location value is not provided for a particular object, then the client shall use the Profile_Location of the Device object, if provided, to find the definition of the Profile_Name.

12.35.30 Profile_Name

This property, of type `CharacterString`, is the name of an object profile to which this object conforms. To ensure uniqueness, a profile name shall begin with a vendor identifier code (see Clause 23) in base-10 integer format, followed by a dash. All subsequent characters are administered by the organization registered with that vendor identifier code. The vendor identifier code that prefixes the profile name shall indicate the organization that publishes and maintains the profile. This vendor identifier need not have any relationship to the vendor identifier of the device within which the object resides.

A profile defines a set of additional properties, behavior, and/or requirements for this object beyond those specified here. This standard defines only the format of the names of profiles. If the Profile_Location property of this object or the Device object is present and nonempty, then the value of this property shall be the name of a CSML type defined in an xdd file referred to by the Profile_Location property.

12.36 Credential Data Input Object Type

The Credential Data Input object type defines a standardized object whose properties represent the externally visible characteristics of a process that provides authentication factors read by a physical device. An authentication factor is a data element of a credential that is a unique digital identifier used to verify the identity of a credential. A credential may have multiple authentication factors.

Examples of physical devices that may be represented by this object type are card readers, keypads, biometric readers, etc.

A single physical credential reader which supports multiple authentication factor formats may be represented by multiple Credential Data Input objects when the authentication factor formats are not functionally equivalent or cannot be used interchangeably. An example of a device of this type is a credential reader that contains both a card and biometric reader. In this case two specific Credential Data Input objects are used; one for the card reader function and one for the biometric reader function respectively.

Alternatively, a single physical credential reader that supports multiple authentication factor formats may be represented by a single Credential Data Input object when the authentication factor formats are functionally equivalent and may be used interchangeably. An example of a device of this type is a credential reader that can read multiple Wiegand formats. It is recommended that a single Credential Data Input object that supports multiple authentication factor formats be associated with a single physical device.

Credential Data Input objects may optionally support intrinsic reporting to facilitate the reporting of fault conditions. Credential Data Input objects that support intrinsic reporting shall apply the NONE event algorithm.

The Credential Data Input object type and its properties are summarized in Table 12-43 and described in detail in this clause.

Table 12-43. Properties of the Credential Data Input Object Type

Property Identifier	Property Datatype	Conformance Code
Object_Identifier	BACnetObjectIdentifier	R
Object_Name	CharacterString	R
Object_Type	BACnetObjectType	R
Present_Value	BACnetAuthenticationFactor	R ¹
Description	CharacterString	O
Status_Flags	BACnetStatusFlags	R
Reliability	BACnetReliability	R ¹
Out_Of_Service	BOOLEAN	R
Supported_Formats	BACnetARRAY[N] of BACnetAuthenticationFactorFormat	R
Supported_Format_Classes	BACnetARRAY[N] of Unsigned	O ²
Update_Time	BACnetTimeStamp	R
Event_Detection_Enable	BOOLEAN	O ^{3,4}
Notification_Class	Unsigned	O ^{3,4}
Event_Enable	BACnetEventTransitionBits	O ^{3,4}
Event_State	BACnetEventState	O ^{3,4}
Acked_Transitions	BACnetEventTransitionBits	O ^{3,4}
Notify_Type	BACnetNotifyType	O ^{3,4}
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O ^{3,4}
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O ⁴
Event_Message_Texts_Config	BACnetARRAY[3] of CharacterString	O ⁴
Reliability_Evaluation_Inhibit	BOOLEAN	O
Property_List	BACnetARRAY[N] of BACnetPropertyIdentifier	R
Tags	BACnetARRAY[N] of BACnetNameValue	O
Profile_Location	CharacterString	O
Profile_Name	CharacterString	O

¹ This property is required to be writable when Out_Of_Service is TRUE.

² The size of this array shall be the same as the size of the Supported_Formats array.