

ODVA Specification Mandatory Change List

Definition and Legend

This document tracks changes made in the specifications that are mandatory for products implementing the technologies.

ODVA publishes this list separately from the specifications in order to give developers and managers advanced notice of changes that will impact the products for which they are responsible.

This document does not list any optional changes. For optional changes and enhancements, see the Revision page at the front of each specification volume.

Scope of Change

O: Optional: An optional feature/function

C: Conditional: An optional feature/function that is required under specific conditions, see specification

M: Mandatory: A feature/function that is required

If the Scope of Change differs between Descriptions of a single spec change, separate rows are shown.

Scope of Products Impacted

New: Products taking the conformance test the first time

Existing: Products that already have a valid DOC and are being updated with new features, as defined in section 8 of the Conformance Policy (PUB00008)

The effective date is the date when the change will be enforced by conformance testing.

Specification volumes are referenced by number. The titles of the volumes can be found on a tab in this spreadsheet.

If there is a discrepancy between this spreadsheet and the specification, the latest released specification(s) will prevail.

The title of each page identifies the the publication cycle of the changes shown. There are two publication update cycles each year, typically in April and November.

Updated **April 2, 2026**

Volume Number	Volume Title	Edition at April 2026 (2026 PC 1) Publication
1	The Common Industrial Protocol	3.40
2	EtherNet/IP Adaptation of CIP	1.36
3	DeviceNet Adaptation of CIP	1.16
4	ControlNet Adaptation of CIP	1.09
5	CIP Safety	2.28
6	CompoNet Adaptation of CIP	1.08
7A	Integration of Modbus Devices into the CIP Architecture	1.12
7B	Integration of HART Devices into the CIP Architecture	1.03
7C	Integration of IO-Link Devices into the CIP Architecture	1.08
8	CIP Security	1.21
9	CIP Motion	1.16

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
UDINT Instance ID Clarification	1	3.40	It clarifies that a device is not required to implement either the UINT or UDINT version of the Max Instance and Number of Instances attributes unless explicitly required by a specific object. When these attributes are implemented, the UDINT version shall be used if the attribute value can exceed 65,535; otherwise, the UINT version shall be implemented (see Table 4-5.2).	New and Existing	C	Apr-26	Apr-26	CT23
xDS Requirements	1	3.40	1. Expanded EDS Requirements: Many sections and keywords are now designated as Required for Device EDS files. In general, if an object or attribute is implemented, the corresponding section or keyword in the EDS file is also required. (see Sections 7-3.1.1, 7-3.3.2.1, and 7-3.6, etc.) 2. Minimum Requirements for EDS Interpreters: A minimum set of requirements has been introduced for EDS interpreters used to configure originators. Any device capable of originating connections must be accompanied by a configuration tool that can correctly parse EDS files and support all mandatory elements for EDS Interpreters. The originator and its configuration tool, taken together, must be capable of utilizing all required EDS sections. (see Sections 7-3.1.1, 7-3.3.2.1, and 7-3.6, etc.)	New and Existing	M	Apr-26	Apr-27	CT23 CT24
TLS Version Clarification	8	1.21	EtherNet/IP over TLS and DTLS shall use only TLS 1.2 and DTLS 1.2; all other versions are not permitted. (Section 3-4.2)	New and Existing	C	Apr-26	Apr-26	CT23
IO-Link Data Storage parameter addition	7C	1.08	A Conditional Data Storage instance attribute (6) was added to the IO-Link Master PHY Object to control IO-Link Master Data Storage functionality in accordance with the current IO-Link Interface and System Specification. If this attribute is supported, the Revision attribute shall report a value of 2 (see Tables 5-4.1 and 5-4.3).	New and Existing	C	Apr-26	Nov-26	CT23
Time Sync_Log Sync Interval Update	1	3.39	The acceptable range of PortLogSyncInterval field in PortLogSyncIntervalCfg attribute (14) of Time Sync Object was changed from (-3 to +2) to (-4 to +2). (Table 5B-2.23)	New and Existing	C	Nov-25	May-27	CT23
Ingress Egress in Associated Communications Objects Table	1	3.39	Updated Table 5A-1.1 and 5A-1.2 to indicate that the Ingress Egress Object is an Associated Communications Object for the Port Object instance attribute 11. (Table 5A-1.1 and 5A-1.2)	New and Existing	C	Nov-25	Dec-26	CT23
Forward_Close Ext Status Clarification	1	3.39	A device is expected to return General Status 0x01 and Extended Status 0x316 (FORWARD_CLOSE SERVICE CONNECTION PATH MISMATCH) when detects a mismatch in Connection Path between the value received in the Forward_Close request and the value sent in the originating connection request. Extended Status 0x316 is not deprecated. Table 3-5.37 Connection Manager Service Error Codes was updated.	New and Existing	C	Nov-25	May-27	CT23
EIPSO Clarification for GAA	8	1.20	For EtherNet/IP Security Object revision 8 and onward, the instance level GAA response shall include attribute 18 and 19 if they are implemented. (Table 5-4.14)	New and Existing	C	Nov-25	Nov-25	CT23
Secure Forward Open Alignment	8	1.20	1. The option of sending ForwardOpen via TCP port 2221 by using TLS to open a non-secure Class 0 and Class 1 connection over 2222 UDP port is deprecated. New devices are not allowed to use this option. (Table 3-5.8 and Table 3-5.9) 2. Besides open TCP/UDP ports, Ingress rules defined in the Ingress Egress Object (0x63) will affect whether or not the connection is allowed. (Section 3-5.7.2.4)	New and Existing	C	Nov-25	May-27	CT23
ACD Fault Reporting Change	2	1.35	When an address conflict is detected, if a device can remain Operational with the faulted interface, set the device's state to Minor Recoverable Fault with no change to the Module Status indicator; otherwise set the device's state to Major Recoverable Fault with Module Status indicator flashing red. (Appendix F-1.2.5)	New and Existing	C	Nov-25	May-27	CT23
Electronic Key Segment Status Code Update	7C	1.07	For IO-Link Device ID mismatch in an Electronic Key Segment, Additional Status 0x114 (VENDOR ID OR PRODUCT CODE MISMATCH) shall be used instead of Additional Status 0x115 (DEVICE TYPE MISMATCH). (Appendix C-2)	New and Existing	C	Nov-25	May-26	CT23
Closed Communication Systems	5	2.28	Added an option to use CIP Safety in closed communication systems besides the current SC3 non-interference requirements. (Section 2-1.1, Appendix F-4.9, F-4.13)	New	C	Nov-25	Nov-25	CT22
Parameter Object - Attribute Access Clarifications	1	3.38	1. If the Descriptor Attribute 4 has the "Write Only Parameter" bit set, the Get_Attributes_All service shall return 0x2C (Attribute not gettable) with extended status 0x0001 which is the ID of the attribute that caused the issue. Clients can use Get_Attribute_Single or Get_Attribute_List to retrieve the readable attributes. (Table 5A-14.16) 2. For instance attribute 2 (Link Path Size) and attribute 3 (Link Path), Set is required if the Supports Settable Path bit (0) in the Descriptor (Instance Attribute #4) is TRUE. (Table 5A-14.7)	New and Existing	M	Apr-25	May-26	CT22
Concurrent Connections Cleanups	1	3.38	1. Electronic Key Format 5 (Serial Number) is not allowed for concurrent connection target endpoints that support more than one participant. A General Status 0x01 Extended Status 0x315 error shall be returned when any of the multiple endpoints receive a concurrent connection management service with a Format 5 Electronic Key. (Section 3-5.6.1.10) 2. Added a new Extended Status 0x416: CONCURRENT CONNECTIONS CONNECTION PATH MISMATCH (Table 3-5.37)	New and Existing	C	Apr-25	May-26	CT22
Response to Response Problem Mitigation	1	3.38	The Service parameter shall hold the service code of the requested service as defined by the Object referenced in the Request_Path parameter. Allowed range for this parameter is 0x00-0x7F. If the value exceeds this range, i.e. if the response bit 0x80 is set, a target shall drop the request with no reply. (Section 2-4.1.1) This request takes effect immediately for UDP Only interfaces; 12 months later for Full/TCP interfaces.	New and Existing	M	Apr-25	May-26	CT22

CIP Security UAP Usage of Network Segment	1	3.38	1. [User Authentication Session ID Network Segment] is added to Request Path of Message Router Request. (Section 2-4.1.1) 2. Any Request_Path that cannot be interpreted by a device's implementation of the Message Router shall result in General Status Code 0x04 (Path segment error), 0x05 (Path destination unknown) or 0x16 (Object instance does not exist) being returned. (Section 5A-3.6.2) 3. If the Request_Path contained a User Authentication Session ID Network Segment and the User Authentication Session ID cannot be paired with an authenticated session as documented in Volume 8: CIP Security, Chapter 2: CIP Common Security, a General Status Code 0x0F (Privilege violation) error shall be returned. (Section 5A-3.6.2)	New and Existing	C	Apr-25	Nov-26	CT22
Assembly Object Class Revision Attribute clarification	1	3.38	Revision 2 is required if no subsequent revision applies. (Table 5A-5.1)	New and Existing	C	Apr-25	May-26	CT22
Pull CIP Security Configuration	8	1.19	Added a new Pull Model for CIP Security Configuration (Section 4-4)	New and Existing	C	Apr-25	Nov-26	CT23
Update State Transition of Pull Model	8	1.19	Updated State Transition of Pull Model. (Section 5-4.9)	New and Existing	C	Apr-25	Nov-26	CT22
CRL Format Error Code	8	1.19	Added several new error codes for Apply_Config service of EtherNet/IP Security Object. (Table 5-4.21)	New and Existing	C	Apr-25	Nov-26	CT23
Ingress Egress Object Set_Rules Apply_Behavior clarification and Enhancement	8	1.19	1. Added a new Class attribute 12 (Capabilities) (Section 5-9.3.5) 2. Clarify the behavior of the Apply_Behavior parameter of Set_Rules service. (Table 5-9.3)	New and Existing	C	Apr-25	Nov-26	CT22
Electronic Key Segment correction	7C	1.06	Require to support Match Electronic Key checking. (Section 10-4.3)	New and Existing	C	Apr-25	May-25	CT22
Motion Device Axis Object revision update	9	1.14	1. Updated Motion Device Axis Object to revision 11. (Table 5-2.2) 2. Datatypes of several attributes are changed from ULINT to STIME. (Table 5-2.17)	New and Existing	C	Apr-25	Nov-26	CT22
Connection Triad Enhancements for Redundancy Applications	1	3.37	Added a Conditional instance attribute 25 (Redundant Device ID) to Connection Manager Object which is required for originators that are capable of originating Concurrent Connections. Its value is used in Concurrent_Forward_Open/Large_Concurrent_Forward_Open, Get_Connection_Data and Search_Connection_Data service requests. (Table 3-5.3, Section 3-5.3.1.13, Table 3-5.27, Table 3-5.32 and Table 3-5.36)	New and Existing	C	Nov-24	May-26	CT22
Identity Object - State Transition from Major Recoverable Fault to Major Unrecoverable Fault	1	3.37	Added a transition path from Major Recoverable Fault state to Unrecoverable Fault state, also from Standby state to Unrecoverable Fault state. (Figure 5A-2.2, Table 5A-2.23)	New and Existing	M	Nov-24	May-26	CT22
Id Obj - Condition for Attr 25	1	3.37	This SE clarifies behavior of Get_Attributes_All default attribute values and sets Instance Attribute 25 (Application Profiles) as Conditional. The attribute is required if the device supports at least one application profile. (Table 5A-2.3)	New and Existing	C	Nov-24	May-26	CT22
Process Device Diag-Add Expansion Profile Diagnostics	1	3.37	Changed the data type for Class Attribute 13 (Profile Diagnostics) and Class Attribute 17 (Supported Profile Diagnostics) from LWORD to Array of Byte in Process Device Diagnostics Object. Also added Class Attribute 19 (Size of Profile Diagnostics). These three attributes are required if implementing Process Device Diagnostics Object. (Table 5B-19.6)	New and Existing	C	Nov-24	Nov-24	CT22
Non-PFS Cipher Suites for Constrained CIP Security	8	1.18	Added three Non-Perfect Forward Secrecy Pre-Shared Key Cipher Suites which are required for CIP Security Resource-Constrained Profile. (Table 3-5.5)	New and Existing	C	Nov-24	May-26	CT22
Update Token Transport Requirement	8	1.18	Added a new Conditional instance attribute 20 (I/O Authorization Policy) to EtherNet/IP Security Object which provides users with the option to set up user authentication/authorization on just class 3 and unconnected messaging, while allowing for the ForwardOpen/ForwardClose to be done over a DTLS session. This attribute is required if the User Authentication Profile is supported, otherwise it must not be implemented.(Table 5-4.3, Section 5-4.4.20)	New and Existing	C	Nov-24	May-26	CT22
Ingress Egress Object for Ingress-only Devices	8	1.18	Instance attribute 2 (Egress Rules) of Ingress Egress Object was changed from Required to Conditional which is now optional for target-only devices. (Table 5-9.3)	New and Existing	C	Nov-24	May-26	CT21
Ingress Egress Object Clarifications and Enhancements	8	1.18	1. The PSK Identity of Pre-Shared Keys attribute (5) of EtherNet/IP Security Object shall be an ASCII-encoded string and shall not contain commas. (Section 5-4.4.5) 2. All strings in the rules of Ingress Egress Object shall be case sensitive and UPPERCASE. IP addresses shall be in dotted decimal notation, with no leading "0x" or "0". Ports shall be in decimal notation. Strings not conformant to this will result in error code 0xD6 for Ingress Rules, 0xD7 for Egress Rules. (Section 5-9.4.1.1, section, Section 5-9.4.2.2, etc.) 3. Ingress Egress Object becomes an Associated Communication Object and shall be reported in Associated Communication Object attribute 11 of Port Object. (Section 3-9.2.1.9) 4. Existing connections are to be dropped when Ingress Egress are automatically changed after Pull Model completes. (Section 5-9.4.1.2) 5. Device-Based Firewall Profile needs to be reported in Security Profiles attribute 2 and Security Profiles Configured attribute 3 of CIP Security Object. (Section 5-3.4.2, Section 5-3.4.3)	New and Existing	C	Nov-24	May-26	CT21
CIP Security setting shouldn't clear in Type II Reset	8	1.18	1. For a CIP Security device, all reset types of Identity Object shall only be accepted when sent over a CIP Security connection. (Section 4-3.1.3) 2. CIP Security settings shall be preserved when the device receives a Type 2 Reset of Identity Object. (Section 5-2.2)	New and Existing	C	Nov-24	May-26	CT22
Require Encrypt then MAC for AES-CBC	8	1.18	1. The Encrypt Then MAC extension (defined in RFC 7366) shall be supported when using any AES-CBC cipher suite. (Section 3-5.9.1) 2. The Supported Elliptic Curves extension shall be sent when using an Elliptic Curve cipher suite. (Section 3-5.9.2)	New and Existing	C	Nov-24	May-26	CT22
Clarify PSK Member Services Requirement	8	1.18	The previously required Member services of EtherNet/IP Security Object for the Resource-Constrained CIP Security Profile are now only required if the Send_Receive_Fragment service of Message Router Object is not supported. (Table 5-4.6)	New and Existing	C	Nov-24	May-26	CT21
LLDP Management - Last Change	2	1.34	Clarify that Last Change attribute of LLDP Management Object reports the value of sysUpTime taken from the last time that any entry in the LLDP Datastore of the device changed. (Table 5-16.3)	New and Existing	C	Nov-24	May-25	CT22
QoS PCP attributes	2	1.34	Added 7 new Conditional instance attributes to QoS Object which allows to set Priority Code Point (PCP) values. These attributes are required if the device supports sending 802.1Q frames. Attribute 9 and 10 also require CIP Sync to be supported.(Table 5-7.3 and Section 5-7.4.3)	New and Existing	C	Nov-24	May-26	CT22

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Clarify options after General Status "Reply data too large" (0x11)	1	3.36	1. XXTestWhen a CIP target device returns status 0x11 (Reply data too large), a client should retry the request with alternate access methods, such as Message Router Send_Receive_Fragment service (preferred), Get_Member service of the target object, or via connection opened with Large_Forward_Open. (Section 2-4.2) 2. A device supports only the Large_Forward_Open approach in such case will get an Advisory.	New and Existing	C	Apr-24	Apr-24	
Parameter Object - Get_Enum_String	1	3.36	The Enumerated String Number parameter of Get_Enum_String service was changed from USINT data type to USINT for bit string data type, else using the Data Type of attribute 5. (Table 5A-14.21)	New and Existing	C	Apr-24	Apr-24	
Process Device Diag-Profile Diag and Sim	1	3.36	1. Update and clarify some attributes of Process Device Diagnostics Object (Table 5B-19.8). 2. Allow all diagnostics instances to be configurable. (Section 5B-19.8, Table 5B-19.26, Table 6-43.13, Table 6-44.13, Table 6-45.17, Table 6-46.17, Table 6-47.17)	New and Existing	C	Apr-24	Apr-24	
Flow and Pressure Device Profiles- Units and File Object	1	3.36	1. Clarify that File Object is optional for the Flow and Pressure Process Device Profiles. Add Predefined File Object instance OxCA for a device's Profile EDS File and Icon File. (Table 5A-42.27, Table 6-43.1 - Table 6-47.1) 2. Limit the engineering units supported for each profile. (Section 6-43.6.2.2.1, 6-44.6.2.2.1, etc.) 3. Correct the conversion factor for 2E0Ehex US Beer Barrels. (Section D-2.33)	New and Existing	C	Apr-24	Apr-24	
MDAO and Device Profile update	9	1.12	MDAO updated to Revision 10	New	C	Apr-24	Apr-24	
Expand States Protected by CIP Security	8	1.17	1. Changes to security objects containing CIP Security configuration shall only be accepted when sent over a CIP Security connection even if the device is in the Factory Default state. (Section 4-3.1.3) 2. Changes to security related objects without containing CIP Security configuration shall be made over a CIP Security connection once the CIP Security Object is not in the Factory Default state. (Section 4-3.1.3)	New and Existing	C	Nov-23	Apr-25	
Update Originator Cipher Suite Requirements	8	1.17	Cipher suits required for a given profile applies to a device implementing that profile, no matter it is a Target or Originator. (Table 3-5.4 and Table 3-5.5)	New and Existing	C	Nov-23	Nov-23	
IANA Port Admin EDS Keyword	2	1.33	[IANA_Port_Admin] entry is required if a device supports TCP/IP Interface Object's instance attribute 14 (IANA Port Admin), otherwise not allowed. (Table 7-7.1).	New	C	Nov-23	Apr-25	
Ethernet/IP Usage Profile Updates	2	1.33	1. Ethernet/IP Usage Profiles was updated to allow a device support multiple usage profiles. (Table 11-3.1). 2. The Ethernet/IP Capability Item in the ListIdentity response shall only set bits corresponding to the features supported on the interface receiving the request, not all the interfaces supported by the device. (Table 2-4.5)	New	C	Nov-23	Nov-23	
Modbus Serial Link Object Clarification	7A	1.12	1. Data Bits and Stop Bits of Modbus Serial Link Object instance attribute 3 shall be encoded as binary not ASCII. (Table 5-6.10) 2. Modbus Serial Link Object bumped to Revision 2. (Table 5-6.1)	New and Existing	C	Nov-23	Nov-23	
Identity object Protection Mode attribute	7C	1.05	Identity Object Protection Mode attribute 19 is now allowed for Virtual IO-Link device. (Table 5-1.1)	New and Existing	C	Nov-23	Nov-23	
Concurrent Connections	1	3.34	1. Introduce Concurrent Connections functionality to the CIP specification (Section 3-7). 2. Add new services and attributes to Connection Manager Object to handle Concurrent Connections, bump the object revision to 02 (Table 3-5.1 and 3-5.8). 3. Define new Connection Path rules for Concurrent Connections (Section 3-5.5.1.10, Appendix C-1.4.3.6.2). 4. Describe new CIP Routing behavior for Concurrent Connections (Section 10-2.2). 5. Add new entries to [Connection Manager] section in EDS file (Table 7-3.49). 6. Concurrent Connections packets use CRC to protect the integrity of packets (Appendix C-7).	New	C	Apr-23	Apr-23	
Device Type Revision	1	3.34	1. Introduce revision concept to Device Profile definition (Table 6-2.2). 2. Add a Supported Device Type Revision attribute 38 to Identity Object and bump its revision to 03 (Table 5A-2.1 and 5A-2.3) 3. Add new entry to [Identity Object] section in EDS file.	New	C	Apr-23	Apr-23	
Supporting Objects for Process Device Profiles	1	3.34	1. Add Process Measurement Value Object and Process Totalized Value Object for process field devices (Section 5B-21 and 5B-22) 2. Add new object class sections for these objects in EZ-EDS (Table 7-3.4).	New	C	Apr-23	Apr-23	
Flow Process Device Profile	1	3.34	Add three new Process Device Profiles: Coriolis Flow Device, Electromagnetic Flow Device and Vortex Flow Device (Table 6-5.1 and 6-5.2).	New	C	Apr-23	Apr-23	
Requirements for Process Device Profiles	1	3.34	Specify requirements for Process Device Profiles (Section 6-2.5).	New	C	Apr-23	Apr-23	
Pressure Process Device Profile	1	3.34	Add two new Process Device Profiles: Scaled Pressure Device and Standard Pressure Device (Table 6-5.1 and 6-5.2)	New	C	Apr-23	Apr-23	
Process Device Diagnostics Simulation Addition	1	3.34	Update Process Device Diagnostics Object Revision to 4 (Table 5B-19.5)	New and Existing	C	Apr-23	Apr-23	
LLDP Reception Clarification	2	1.32	Devices not implementing LLDP Reception are not allowed to support LLDP Data Store attribute 4 and Last Change attribute 5 of LLDP Management Object.	New and Existing	M	Apr-23	Apr-23	
LLDP Clarifications	2	1.32	1. Clarify that data in LLDP frames is sent in big-endian format. Deprecate the CIP Identification TLV with subtype 1 and create a new CIP Identification TLV with subtype 9 that is clearly specified as big endian (Section 9-8.3). 2. Make it possible for devices to support both the LLDP Date Table Object and SNMP at the same time (Table 5-15.3).	New and Existing	C	Apr-23	Nov-24	
PRP-HSR Updates	2	1.32	Add additional attribute 21 necessary to conform to the latest IEC 62439-3 standard for HSR.	New and Existing	C	Apr-23	Nov-23	
Improve error reporting	7C	1.04	Use object specific general status code to return IO-Link command errors (Table 5-3.4, 5-3.8 and 5-3.10).	New	C	Apr-23	Apr-23	
Support access to Index 0	7C	1.04	Use 0x10000 as the instance value for accessing Index 0 in IO-Link Service Parameter Object (Section 5-3).	New and Existing	C	Apr-23	Apr-23	
OctetStringT conversion	7C	1.04	Change the conversion of an OctetStringT to an array of USINT instead of previous SHORT_STRING (Table C-3.1)	New and Existing	C	Apr-23	Apr-23	
ArrayT conversion	7C	1.04	Change the Conversion Type value of an ArrayT to allow for 2 byte conversion types. (Table C-3.1).	New	C	Apr-23	Apr-23	
RecordT conversion type	7C	1.04	Add a conversion type for the IO-Link RecordT data type (Table C-3.1).	New and Existing	C	Apr-23	Apr-23	
TimeT STIME conversion	7C	1.04	The conversion between TimeT to STIME needs to use new constant (Appendix C-3.1.1)	New and Existing	C	Apr-23	Apr-23	
IO-Link Service Parameter object Device State conflict extended status	7C	1.04	Add Device State Conflict (0x10) and new Extended Status codes to IO-Link Service Parameter object service responses (Table 5-3.3 - 5-3.12).	New	C	Apr-23	Apr-23	

Expand PSK Usage Field	8	1.16	EtherNet/IP Security Object Revision bumps to 8, add a new Required PSK Usages Supported Class attribute (Table 5-4.2 and section 5-4.3.2).	New and Existing	C	Apr-23	Apr-24
Member Services for PSK Attribute	8	1.16	Member services are required for Resource-Constrained CIP Security Profiles, optional for others (Table 5-4.6).	New and Existing	C	Apr-23	Nov-24
Cipher Suite Requirements	8	1.16	Make several previously required cipher suites to recommended (Table 3-5.4 and 3-5.5).	New and Existing	C	Apr-23	Apr-23
PSK Usage Clarification	8	1.16	Disallow multiple PSKs from being set that re-use a given identity value (Section 5-4.4.5).	New and Existing	C	Apr-23	Nov-23
Certificate handling	8	1.16	CIP Security devices are required to support at least two dynamic instances of the Certificate Management Object (Section 5-5.1.1). CMO Revision becomes 2, Class attribute 2 and 3 are required now. Devices that already passed the conformance test and only support one dynamic instance may continue using just one dynamic instance. This will degrade the interoperability and robustness in systems, but it is recognized that devices might not have the resources to implement this change.	New and Existing	C	Apr-23	Nov-23
Consumer Activity Monitor Usage Clarification	5	2.25	Add text in FRS78 indicating that the Consumer Activity Monitor timer should be reset to the remaining data age based on the last reception time stamp (Section 2-1.8.3.1, F-3.8.5, F-3.9.2.3).	New and Existing	C	Apr-23	Apr-23
Tst52 Split	5	2.25	Split TST52 into four tests of TST132, TST133, TST134 and TST135 (Appendix F-2.6.2, Table F-3.11.5.2.1, F-3.11.5.2.4, F-5.1).	New	C	Apr-23	Apr-23
Enumeration for String Data Types	1	3.33	Any Param entry whose type is string (STRING, STRING2 or SHORT_STRING) can also be enumerated using the Enum Keyword in addition to integer and bit string. (Section 7-3.6.6.2 and Table 7-3.26)	New	M	Nov-22	Nov-22
LLDP SNMP MIB	2	1.31	Added requirements and reference for ODVA devices implementing the SNMP LLDP MIB. (Section 9-8.1) (https://www.odva.org/subscriptions-services/additional-tools/request-ldp-management-information-base)	New and Existing	C	Nov-22	Apr-23
Safety Reset Type2 Clarification	5	2.24	Changed Soft-set MacID to Soft-set NodeID, Soft-set Baud Rate to Soft-set Communication Link Parameters (Table 5-4.21)	New and Existing	C	Nov-22	Apr-24
TST130 Adding Running Conditions	5	2.24	Added running conditions for TST130. (Appendix F-5.1)	New	M	Nov-22	Nov-22
Correct Reset Factory settings command code	7C	1.3	Identity Object Type 1 Reset shall cause IO-Link Master issue Restore factory setting command 0x82 (not 0x81) to the IO-Link Device. (Table 5-2.6)	New and Existing	M	Nov-22	Nov-22
Ingress Egress Object	8	1.15	1. Added a new CIP Security Profile: Device-Based Firewall Profile (Table 8-1.1 and Section 8-2.1) 2. Added new Ingress Egress Object which is required by Device-Based Firewall Profile (Section 5-9) 3. Added Available Originator Cipher Suites and Allowed Originator Cipher Suites attributes to EtherNet/IP Security Object (Table 5-4.3)	New	C	Nov-22	Apr-24
Correct EIPSO Reset Condition	8	1.15	EtherNet/IP Security Object Reset service will be accepted over any connection up until the CIP Security Object's state attribute transitions to Configured, at which point this Reset will only be accepted over a CIP Security connection. (Table 5-4.5.1)	New and Existing	M	Nov-22	Nov-22
Make Wildcards Optional for SAN with Hostname	8	1.15	IP Address must be supported in SAN, Hostname and URI support in SAN are optional. (Section 5-4.4.17)	New and Existing	M	Nov-22	Nov-22
Product Authenticity Check	1	3.32	Added an Optional Product Identity Certificate attribute 39 (Table 5A-2.3) and a Conditional Certificate_Challenge service (Table 5A-2.18) to Identity Object.	New and Existing	C	Apr-22	Apr-22
Register Object Data Access Rule Clarification	1	3.32	Clarify Register Object Direction and Size attributes are NV attributes, also clarify the Set are Optional for attribute 2-4. (Table 5A-2.2)	New and Existing	C	Apr-22	Apr-22
Improve LLDP alignment with IEEE 802.1AB-2016	2	1.3	LLDP Specification was updated to align with IEEE 802.1AB-2016: 1. For LLDP Enable attribute 1 of LLDP Management Object, on set of Global Enable Bit 0 from 1 to 0, all existing table entries shall be removed. (Table 5-15.4) 2. LLDP Management Object msgTxInterval attribute 2 valid range was changed. Last Change attribute 5 meaning was changed. (Table 5-15.3) 3. The meaning of LLDP Data Table Object Last Change attribute 9 was changed. (Table 5-16.3) 4. Added LLDP Link State Transition requirements (Section 9-8.6)	New and Existing	C	Apr-22	Apr-22
SAN Formatting Clarification	8	1.14	Clarify that only DNS Name, IP Address and Uniform Resource Identifier (URI) must be supported in Subject Alternative Name (SAN) within CIP Security certificates. (Section 5-5.7.1)	New and Existing	C	Apr-22	Apr-22
CRL Clarification	8	1.14	1. The EtherNet/IP Security Object Certificate Revocation List attribute 8 now can hold an Array of CRLs rather than a single CRL and the object revision was bumped to 7. (Table 5-4.3) 2. Clarify that a certificate may only be revoked by the Certificate Authority which originally signed it. (Section 5-4.4.8) 3. Two kinds of GAA Format: one for Revision 1-6; another for Revision 7 and onward. (Table 5-4.11)	New and Existing	C	Apr-22	Nov-23
Send Receive Fragment Requirement Date	8	1.14	The requirement of supporting Send_Receive_Fragment service was extended to November 2022.	New and Existing	C	Apr-22	Apr-22
Find Next Object Instance Service Clarification	1	3.31	Clarify that Find_Next_object_Instance service is not supported at the instance level, even though the Instance ID value to use as the lower bound of the search is provided in the application path. (Appendix A-4.14)	New and Existing	C	Nov-21	Nov-21
Clarify Protection Mode	1	3.31	CIP Security devices are required to allow certain authenticated requests while in Explicit and/or Implicit Protection mode. (Section 5A-2.3.1.16.1, Vol 8 section 5-2)	New and Existing	C	Nov-21	Nov-21
File Object Download Transfer Clarification	1	3.31	1. Removed the summary text in Section 5A-42.5.6 to eliminate the redundancy and conflict to Table 5A-42.26. 2. Did the same change to previous revision of File Object which is listed in Appendix E-2.5.6.	New and Existing	C	Nov-21	Nov-21
Set Access Rule Clarification 2021	1	3.31	An attribute with Settable (Set) Access rule shall be accessed by at least one of the set services. (Section 4-4.1)	New and Existing	C	Nov-21	Nov-21
Cipher Suite Changes	8	1.13	1. Require GCM-based cipher suites be supported and change RSA-based cipher from required to optional for CIP Security endpoints. (Table 3-5.4 Section 5-4.4.6 and 5-4.9) 2. EtherNet/IP Security Object Allowed Cipher Suites attribute 4 shall only allow cipher suites that support confidentiality in the Factory Default state. PSK based cipher suites shall not be allowed by default. (Section 4-4.4)	New and Existing	C	Nov-21	Apr-23
Conditional Support for Security Profiles Configured	8	1.13	Support for Security Profiles Configured attribute 3 of CIP Security Object will be required starting from April 2022.	New	C	Nov-21	Apr-22

Pull Model Profile	8	1.13	1. Added a new EtherNet/IP Pull Mode Profile for devices supporting Pull Model.(Table 1-3.1)(Table 5-3.5) 2. All CIP Security devices must support Push model and optionally support Pull model. For devices supporting both mechanism, the Pull Model is the default mechanism for obtaining a certificate. (Section 4-3.4.1)	New and Existing	C	Nov-21	Nov-21
PSK Usage Field	8	1.13	Added PSK Usage field to the Pre-Shared Keys attribute 5 of EtherNet/IP Security Object which brings EtherNet/IP Security Object to Revision 7. (Table 5-4.2 and Table 5-4.3)	New and Existing	C	Nov-21	Apr-23
SAN Update	8	1.13	Check Subject Alternative Name attribute 17 of EtherNet/IP Security Object is optional for device with originator functionality. It must not be implemented by devices without originator capabilities. (Table 5-4.3)	New and Existing	C	Nov-21	Nov-21
Make Certificate Signing Request Attributes (csrattrs) Optional	8	1.13	Requesting csrattrs to the EST server during configuration of Pull Model is changed from required to optional. (Section 4-3.4)	New and Existing	O	Nov-21	Nov-21
Prevent DTLS Timeout Disable	8	1.13	Removed the ability to disable DTLS timeouts. (Table 5-4.3)	New and Existing	C	Nov-21	Apr-23
LLDP Management Object Correction (published in PUB00346R0 in June 2021)	2	1.29	1. Definition correction to LLDP Enable attribute 1 for both LLDP Enable Array Length and LLDP Enable Array fields. 2. Access Rule of MsgTxHold attribute 3 was changed from Get to Set.	New and Existing	M	Apr-21	Apr-21
LLDP Date Extension	2	1.29	1. LLDP enforcement date was extended from December 2021 to May 2022. 2. Clarify the LLDP implementation requirements: a device containing bridge(s) or implementing In-Cabinet Profile must support both LLDP transmission and reception; otherwise supporting LLDP transmission is required but LLDP reception support is optional. (Section 9-8.1)	New and Existing	M	Nov-21	May-22
Electronic Key Segment for IO-Link Device	7C	1.02	1. The Electronic Key Compatibility bit 7 is moved from Minor Revision byte to Major Revision byte. (Appendix C-2) 2. In the Revision attribute 4 of Identity Object of the Virtual IO-Link Device, Major Revision bits 0-3 shall be IO-Link Protocol Minor Revision, bits 4-6 shall be IO-Link Protocol Major Revision. Minor Revision filed shall be upper 8 bits of the IO-Link Device ID. (Section 5-2.2.3)	New and Existing	C	Nov-21	Nov-21
Time Sync Object Attribute Clarifications	1	3.3	1. Some instance attributes of Time Sync Object changed data types but no data length change. 2. Time Sync Object is at revision 5 which has a new conditional Associated Interface Labels attribute 31. Associated Interface Objects attribute 29 description is also clarified.	New and Existing	C	Apr-21	Apr-21
Process Device Diagnostics Object Updates	1	3.3	1. Process Device Diagnostic Object Revision 3 is required. (Table 5B-19.5) 2. A required Supported Profile Diagnostics attribute 17 was added. (Table 5B-19.6)	New and Existing	C	Apr-21	Apr-21
In-Cabinet EtherNet-IP Profile	2	1.27	1. A required EtherNet/IP Usage Item in ListIdentity response for devices implementing the In-Cabinet Usage profile. (Table 2-4.6) 2. Two conditional attributes were added to Ethernet Link Object which are required for In-Cabinet Usage Profile. (Table 5-5.3) 3. New Select Link Link Object, In-Cabinet Actual Topology Object and In-Cabinet Commissioning Object were added. (Section 5-17, 5-18 & 5-19) 4. LLDP Data Table Object and two new attributes are required for In-Cabinet Profile Gateway/Router devices. (Table 5-16.3) 5. New required LLDP TLVs for In-Cabinet Profile Gateways Nodes and End Nodes. (Section 9-8.3)	New	C	Apr-21	Apr-21
Active Certificate Deletion Behavior	8	1.12	Added behavior specification about deletion of an active device certificate. (Section 5-4.4.6 and 5-4.9)	New and Existing	C	Apr-21	Apr-22
Constrained CIP Security	8	1.12	1.Added a lightweight Constrained CIP Security Profile for resource-constrained devices. (Table 1-3.2) 2. Defined a User Authentication/Authorization Proxy scheme for resource-constrained devices and CIP Security Object is updated to support this new profile. (Section 2-6 and section 5-3.4) 3. Added two new required Pre-Shared Key Cipher Suites. (Table 3-5.5) 4. Updated EtherNet/IP Security Object to revision 6 to support multiple PSKs needed by Constrained CIP Security Profile. (Section 5-4.3 and 5-4.4)	New	C	Apr-21	Apr-21
Update EST Service Name	8	1.12	Request CIP Endpoints to look for EST server _est-cip_ service instead of _est_tcp_ service for CIP certificates. (Section 4-3.4.3.2.1)	New and Existing	C	Apr-21	Apr-21
Send Receive Fragment Requirement	8	1.12	Ethernet/IP devices implemented EtherNet/IP Security Profiles are required to support Send_Receive_Fragment service, Pull Model and File Object. (Table 8-2.1)	New and Existing	C	Apr-21	Apr-21
Certificate Signing Request with Subject Alt Name	8	1.12	1. Added Subject Alternative Name to Create_CSR service which updated Certificate Management Object to revision 2. (Table 5-5.15). Conformance CIP Security devices shall be updated to support the new service parameter. 2. A optional Check Subject Alternative Name attribute was added to EtherNet/IP Security Object. (Table 5-4.3)	New and Existing	C	Apr-21	Nov-22
Requirement for Output Ownership	5	2.22	OCPUNID is required only for connection points that directly control 'safety outputs' within an 'output device'. (Section F-3.10.1.4) (Section 5-4.2)	New and Existing	C	Apr-21	Apr-21
Addition of base format deprecation grace period	5	2.22	From 1/1/2021 to 1/1/2022, target-only device(s) seeking a new Declaration of Conformity from ODVA without base format deprecation will be given a conformance warning. After 1/1/2022 target-only device(s) which have not deprecated the base format will not be able to obtain a new Declaration of Conformity from ODVA.	New and Existing	C	Apr-21	Apr-21
CIP Security Session ID	1	3.29	The User Authentication Session ID Network Segment is added (Section C-1.4.3) to support CIP Security User Authentication Profile.	New and Existing	C	Nov-20	Nov-20
Process Device Diagnostics Object Updates	1	3.29	1. Process Device Diagnostic Object Revision 2 is required. (Table 5B-19.4) 2. A Optional Recommended Action attribute 11 was added. (Table 5B-19.6) 3. Class attribute 16 User Diagnostic Groups was changed from Required to Optional. (Table 5B-19.1)	New and Existing	C	Nov-20	Nov-20
Serial Number E-key Correction	1	3.29	New status code 0x13A (Serial Number Mismatch) (Table 3-5.34)(Table 5A-3.33)	New and Existing	C	Nov-20	Nov-20
Identity Object Instance Level GAA Response	1	3.29	1. Identity Object Revision 2 is defined. For devices support revision greater than 1, GAA response shall include attribute 14, 19-22 if those attributes are implemented. (Table 5A-2.11) 2. Issue Advisory for devices only support revision 1.	New	C	Nov-20	Nov-20

CIP Security User Authentication Profile	8	1.11	1.The newly added CIP Security User Authentication Profile will provide user level authentication and basic authorization. (Table 1-3.2) 2. Added three new CIP objects: Authority Object, Password Authenticator Object and Certificate Authenticator Object. (section 5-2) 3. A updated format of CIP Security Item in ListIdentity response. (Table 3-5.1) 4. CIP Security Object is in Revision 4 and add new Required Security Profiles Configured instance attribute 3. (Table 5-3.1 and Table 5-3.2)	New	C	Nov-20	Apr-22
Objects Cleanup	8	1.11	1. Kick_Timer service of CIP Security Object shall only be accepted in Configuration In Progress state otherwise shall return status 0x0C (section 5-3.7.2) 2. When Delete service is used to delete an static instance, status code 0x2D shall be returned, not status 0x0C. (section 5-5.5.2) 3. Kick_Timer service of EtherNet/IP Security Object shall only be accepted in Configuration In Progress state otherwise shall return status 0x0C (section 5-4.7.2)	New and Existing	M	Nov-20	Nov-21
Modification of Max Fault Count	5	2.21	1. The Max_Fault_Number parameter in Safety Open is changed from a range to a constant 2. (section 2-6.1) 2. The Max Fault Number attribute 22 is changed to have a fixed value 2 and Get only. (Table 5-6.2) 3. The Max_Fault_Number field of Safety Network Segment is changed to a fixed value 2. (Table C-5.1) 4. TST112, TST117, TST9, TST118, TST10, TST119, TST95 are all updated to use Max_Fault_Number = 2 (F-3.6.2, F3.9.2, F-3.4.2, F-4.11)	New and Existing	M	Nov-20	Nov-20
Unit Code cleanup	1	3.28	Update Symbols for several Engineering Units, such as x2609, x260A, x261A, x2621, etc. (Section D-2.7, D-2.25)	New and Existing	M	Apr-20	Apr-20
Member List Clarifications	1	3.28	1. Assembly Object instance attribute 1 and 2 clarification (Table 5A-5.4). 2. Clarify that the padding between Connection Point members shall be represented as null members in the Connection Point Member list. (section 4.8.1) 3. Correct Standard Network Diagnostic Assmly Content and Ordering. (Table 5A-5.15) 4. Explain how to handle padding in Get_Connection_Point_Member_List service. (section A-4.23.1)	New and Existing	C	Apr-20	Apr-20
CIP Security Object Reset	8	1.1	Specify CIP Security Object Revision 3 which adds a Required Reset service. (Table 5-3.5)	New and Existing	M	Apr-20	Apr-21
DTLS Extensions for UDP-Only Transport	8	1.1	1. For UDP-only EtherNet/IP security device, DTLS is used for all CIP communications sent in a CIP Security context. (Section 3-2.1) 2. New StartDTLS command (section 3-5.3.2) 3. Specify EtherNet/IP Security Object Revision 5 which adds new UPD-only Policy attribute. (Table 5-4.3)	New	C	Apr-20	Apr-20
UDP-Only EtherNetIP for Constrained Devices	2	1.26	1.Specify requirements for a UDP-only EtherNet/IP solution which causes changes in handling of Encapsulation commands and UCMM. (Table 2-3.2) 2. ListIdentiy reply has one new EtherNet/IP Capability Item. (Table 2-4.5, Table 2-6.3) 3. Introduce the EtherNet/IP Transports Application Profile. (Chapter 11) 4. TCP/IP Interface Object Encapsulation Inactivity Timeout attribute is not allowed for UDP-Only EtherNet/IP Transport Profile. (Table 5-4.3)	New	C	Apr-20	Apr-20
Unit Code cleanup	7B	1.2	Update Symbols of several Engineering Units for HART devices. (section D-1.1)	New and Existing	M	Apr-20	Apr-20
Base Format Deprecation	5	2.2	Remove the requirement to implement and test the Base Format. (Table 2-1.3)	New and Existing	M	Apr-20	Apr-20
Test TST42, TST43 and TST44 Corrections	5	2.2	Update TST42, TST43 and TST44 to accept correct error code. (F-3.10.1.2, F-3.10.1.3,	New and Existing	M	Apr-20	Nov-21
Cleanup Configuration Procedure Guidelines	5	2.2	Remove class 3 connection requirement for SNCT configuration data transfer so SRS138 was removed from TST55. (F-3.11.5.5)	New	M	Apr-20	Nov-21
Switch change detect	5	2.2	Remove the requirement for a background test of the switches in safety devices so FRS350, FRS351 and FRS 354 were removed from TST50 (F-3.11.2); FRS350 and RSR364 were removed from TST108 (F-3.11.3).	New	M	Apr-20	Apr-20
File Object Clarifications & Extensions	1	3.27	1. Specify File Object Revision 3 which has new attribute 12 and different behavior (Table 5A-42.27) than rev 1 or 2. CIP Security device is required to support revision 3. 2. New Optional Encoding parameter to Create service (Table 5A-42.10).	New and Existing	C	Dec-19	Jun-21
Assembly Object Class Revision Attribute clarification	1	3.27	Assembly Object Revision attribute value can be either 02 or 03 (Table 5A-5.3).	New and Existing	C	Dec-19	Dec-19
Orphan Certificate Cleanup	8	1.9	1. Specify CIP Security Object Revision 2 which adds a Required Object_Cleanup service (Table 5-3.9). 2. Update Apply Behavior Flag parameter for Apply_Config service of EtherNet/IP Security Object (Table 5-4.12).	New and Existing	C	Dec-19	May-19
EIPSO Reset Condition	8	1.9	Reset service must be sent over a TLS session conditional on the EtherNet/IP Security Object being in the configured state. (Section 5-4.5.1)	New and Existing	C	Dec-19	Dec-19
EIPSO State Addition	8	1.9	Specify EtherNet/Ip Security Object Revision 4, added new Pull Model Disabled state and changed Attribute #13 to Get only. Stte Event Matrix Table 5-14.14 was updated with the new state.	New and Existing	C	Dec-19	Dec-19
LLDP	2	1.25	1. LLDP Management Object (0x109) and LLDP Data Table Object (0x10A) definition are added (Section 5-15 and Section 5-16). 2. Specify ODVA specific implementation of the Link Layer Discovery Protocol (LLDP) (section 9-8). If LLDP protocol is supported, LLDP Management Object shall be implemented. If receive mode is implemented, either LLDP Data Table Object or SNMP shall be implemented. 3. EtherNet/IP Devices undergoing certification for the first time and multi-port devices receiving an update that adds CIP functionality are required to implement LLDP protocol.	New and Existing	M	Dec-19	Dec-21
Standard Network Diagnostic Assy	1	3.26	1. Assembly Object Revision attribute should be 3, 1 and 2 are only allowed for Static Assemblies (Table 5A-5.3). New Conditional attribute Member List Signature (Table 5A-5.4). 2. New Conditional Get_Connection_Point_Member_List service for Connection Manager, Time Sync Object (Table 3-5.3, Table 5B-2.17).	New and Existing	C	Apr-19	Nov-20
Identity Object Reset Service Clarification	1	3.26	1. Reset service is only required for instqnce 1. 2. Devices that reset the whole device if a Reset has been directed to Instances greater than 1 will be non-conformant.	New and Existing	C	Apr-19	Apr-20
DTLS Timeout Enhancement	8	1.8	EtherNet/IP Security Object Revision updates to 3. New required attribute DTLS Timeout is added for CIP Security device.	New and Existing	C	Apr-19	Apr-19
Requiring CIP Security for Services	8	1.8	After a device's CIP Security Object has attained the CONFIGURED state configuration changes must only be accepted if the changes are made over a CIP Security connection for File Object, TCP/IP Object and Ethernet Link Object (Section 4-3.1.3).	New and Existing	C	Apr-19	May-19

CMO State Machine Clarification	8	1.8	Verify_Certificate service clarification and CMO State clarification. (Table 5-5.17 and Table 5-5.18)	New and Existing	C	Apr-19	Apr-19
Feedback Ratio	5	2.18	Add new Conditional attributes and services to Safety Dual Feedback Channel Object for multiport safety devices. (Section 5-4)	New and Existing	C	Apr-19	Apr-19
Common Object Class EDS Correction	1	3.25	Object_Name and Object_Class_Code keywords are required in the [Assembly], [Parameter], [Group] section of eds file if such object exists in the device.(Table 7-3.32, Table 7-3.5, Table 7-3.29.)	New and Existing	M	Nov-18	Apr-19
HART Hooks	1	3.25	New required attributes are added to Identity Object for HART devices (Table 5A-2.3)	New	C	Nov-18	Nov-18
File Instance Clear_File and Save Params	1	3.25	Clear_File service shall not clear File Save Parameter. (Section 5A-42.5.7)	New and Existing	M	Nov-18	Nov-18
STIME correction	1	3.25	STIME shall be data type ULINT not LINT.	New and Existing	M	Nov-18	Nov-18
Remove Integrity Profile	8	2.17	Integrity Profile is obsolete for CIP Security device.	New and Existing	M	Nov-18	Nov-18
System Time Definition	1	3.24	Improve elementary data type for System Time (STIME) (Table C2.1, Section C-3.3, Section 7-3.5.1.12)	New and Existing	M	Apr-18	Apr-18
Invalid Connection Size Status Code	1	3.24	Allow an exception for CIP-Modbus translators to use Status Code 0x109 (Table 3-5.33)	New and Existing	M	Apr-18	Apr-18
Pull Model	8	1.6	Pull Model is a new mandatory capability of CIP Security devices. (Section 4-3, 5-4, 5-5, 6-5.3)	New and Existing	C	Apr-18	May-21
EIP Security Object IF Linkage	8	1.6	Each CIP Security device with more than one IP address shall support the Port Object and the Associated Communication Objects attribute. (Section 5-4.1)	New and Existing	C	Apr-18	Apr-18
Multiport Safety Devices	5	2.17	Add new Required attributes and services of Safety Supervisor Object for multiport safety devices. (Section 5-4)	New and Existing	C	Apr-18	Apr-18
PTP_Leap_Seconds_Attribute	1	3.23	a. Revision Class attribute can be 3 or 4 (required for Master capable device). (Section 5B-2.3) b. New conditional attribute 30. (Section 5B-2.4)	New and Existing	C	Nov-17	May-19
Port Type 0 Associated Communication Objects Issue	1	3.23	a. Port Type and associated objects classification. (Table 3-7.4) b. Associated Communication Object attribute clarification. (Section 3-7.2.1.9)	New and Existing	C	Nov-17	Nov-17
CIP Sync over PRP	1	3.23	A new PTP profile for PRP (Table 5B-2.20)	New and Existing	C	Nov-17	Nov-17
Connection Manager Error Codes Updates	1	3.23	New Connection Manager Error Codes (Table 3-5.33)	New and Existing	C	Nov-17	Nov-17
Get/Set_Attribute_List Clarifications	1	3.23	Clarification of Get/Set_Attribute_List service (Section A-4.3 and Section A-4.4)	New and Existing	C	Nov-17	Nov-18
Commissioning Updates	8	1.5	Enhanced commissioning requirements. (Section 4-3 and section 5-3)	New and Existing	C	Nov-17	Nov-17
Enhance Certificate Trust	8	1.5	a. New required Trusted Identities attribute of EtherNet/IP Security Object (Section 5-4.4) b. Clarification of Certificate Management Object (Section 5-5.4)	New and Existing	C	Nov-17	Nov-17
Correct CIP Security Object Get Attr All	8	1.5	Correct error in CIP Security Object instance level Get_Attribute_All response layout (Table 5-3.8)	New and Existing	C	Nov-17	Nov-17
Secure CL3 and Non-Secure CL1 Clarification	8	1.5	Guideline on how to open non-secure Class 0/1 connection via secure UCMM or Class 3 connection (Section 3-5.7.2.4)	New and Existing	C	Nov-17	May-18
File Object Enhancements	1	3.22	a. Revision Class attribute can be 1 or 2. (Section 5A-42.2) b. Changed definition of the File Save Parameters attribute. (Section 5A-42.2.1.8) c. State Event Matrix change for Download Transfer, First-and-last and Upload_Transfer event. (Table 5A-42.26)	New and Existing	C	Apr-17	Nov-17
PTP port number association	1	3.22	a. Associated Interface Objects attribute is added to Time Sync Object to declare the PTP port number association. (Table 5B-2-3) b. [AssociatedInterfaceObjects] Entry Keyword is added to eds file. (Section 7-3.6.6.1)	Only New	C	Apr-17	Nov-17
Missing Item Count	8	1.4	Added Item Count to CPF Item for Unconnected Message over UDP for DTLS. (Table 3-5.4)	New and Existing	M	Apr-17	Apr-17
Null Fwd Open Clarification	8	1.4	Specify how a Null ForwardOpen should be sent in the presence of CIP Security. (Section 3-7)	New and Existing	C	Apr-17	Apr-17
Cert Format Clarification	8	1.4	Certificate Encodings Flag attribute and Certificate Encoding attribute are added to Certificate Management Object to specify certificate format. (Section 5-5.3.3 and Section 5-5.4.1)	New and Existing	M	Apr-17	Apr-17
PSK Format Clarification	8	1.4	Specify encoding format for Pre-shared keys. (Section 5-4.4.5)	New and Existing	M	Apr-17	Apr-17
MCAO_Not_Required	9	1.1	A Motion Control Axis Object or a vendor specific equivalent construct needs to be in CIP Motion Controller. (Section 1-2.2)	New and Existing	C	Apr-17	Apr-17
Enhancements for PRP HSR	2	1.23	a. PRP/HSR Nodes Table with Active Status attribute is added to PRP/HSR Table Object. (Section 5-14.3.3.1) b. Get_Member service is now Required for PRP/HSR Table Object. (Table 5-14.4) c. Diagnostic attributes 17 - 20 are added to PRP/HSR Protocol Object. (Table 5-13.3)	New and Existing	C	Apr-17	Nov-17

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2026 PC 1

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
UDINT Instance ID Clarification	1	3.40	It clarifies that a device is not required to implement either the UINT or UDINT version of the Max Instance and Number of Instances attributes unless explicitly required by a specific object. When these attributes are implemented, the UDINT version shall be used if the attribute value can exceed 65,535; otherwise, the UINT version shall be implemented (see Table 4-5.2).	New and Existing	C	Apr-26	Apr-26	CT23
xDS Requirements	1	3.40	<p>1. Expanded EDS Requirements: Many sections and keywords are now designated as Required for Device EDS files. In general, if an object or attribute is implemented, the corresponding section or keyword in the EDS file is also required. (see Sections 7-3.1.1, 7-3.3.2.1, and 7-3.6, etc.)</p> <p>2. Minimum Requirements for EDS Interpreters: A minimum set of requirements has been introduced for EDS interpreters used to configure originators. Any device capable of originating connections must be accompanied by a configuration tool that can correctly parse EDS files and support all mandatory elements for EDS Interpreters. The originator and its configuration tool, taken together, must be capable of utilizing all required EDS sections. (see Sections 7-3.1.1, 7-3.3.2.1, and 7-3.6, etc.)</p>	New and Existing	M	Apr-26	Apr-27	CT23 CT24
TLS Version Clarification	8	1.21	EtherNet/IP over TLS and DTLS shall use only TLS 1.2 and DTLS 1.2; all other versions are not permitted. (Section 3-4.2)	New and Existing	C	Apr-26	Apr-26	CT23
IO-Link Data Storage parameter addition	7C	1.08	A Conditional Data Storage instance attribute (6) was added to the IO-Link Master PHY Object to control IO-Link Master Data Storage functionality in accordance with the current IO-Link Interface and System Specification. If this attribute is supported, the Revision attribute shall report a value of 2 (see Tables 5-4.1 and 5-4.3).	New and Existing	C	Apr-26	Nov-26	CT23

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2025 PC 2

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Time Sync_Log Sync Interval Update	1	3.39	The acceptable range of PortLogSyncInterval field in PortLogSyncIntervalCfg attribute (14) of Time Sync Object was changed from (-3 to +2) to (-4 to +2). (Table 5B-2.23)	New and Existing	C	Nov-25	May-27	CT23
Ingress Egress in Associated Communications Objects Table	1	3.39	Updated Table 5A-1.1 and 5A-1.2 to indicate that the Ingress Egress Object is an Associated Communications Object for the Port Object instance attribute 11. (Table 5A-1.1 and 5A-1.2)	New and Existing	C	Nov-25	Dec-26	CT23
Forward_Close Ext Status Clarification	1	3.39	A device is expected to return General Status 0x01 and Extended Status 0x316 (FORWARD_CLOSE SERVICE CONNECTION PATH MISMATCH) when detects a mismatch in Connection Path between the value received in the Forward_Close request and the value sent in the originating connection request. Extended Status 0x316 is not deprecated. Table 3-5.37 Connection Manager Service Error Codes was updated.	New and Existing	C	Nov-25	May-27	CT23
EIPSO Clarification for GAA	8	1.20	For EtherNet/IP Security Object revision 8 and onward, the instance level GAA response shall include attribute 18 and 19 if they are implemented. (Table 5-4.14)	New and Existing	C	Nov-25	Nov-25	CT23
Secure Forward Open Alignment	8	1.20	1. The option of sending ForwardOpen via TCP port 2221 by using TLS to open a non-secure Class 0 and Class 1 connection over 2222 UDP port is deprecated. New devices are not allowed to use this option. (Table 3-5.8 and Table 3-5.9) 2. Besides open TCP/UDP ports, Ingress rules defined in the Ingress Egress Object (0x63) will affect whether or not the connection is allowed. (Section 3-5.7.2.4)	New and Existing	C	Nov-25	May-27	CT23
ACD Fault Reporting Change	2	1.35	When an address conflict is detected, if a device can remain Operational with the faulted interface, set the device's state to Minor Recoverable Fault with no change to the Module Status indicator; otherwise set the device's state to Major Recoverable Fault with Module Status indicator flashing red. (Appendix F-1.2.5)	New and Existing	C	Nov-25	May-27	CT23
Electronic Key Segment Status Code Update	7C	1.07	For IO-Link Device ID mismatch in an Electronic Key Segment, Additional Status 0x114 (VENDOR ID OR PRODUCT CODE MISMATCH) shall be used instead of Additional Status 0x115 (DEVICE TYPE MISMATCH). (Appendix C-2)	New and Existing	C	Nov-25	May-26	CT23
Closed Communication Systems	5	2.28	Added an option to use CIP Safety in closed communication systems besides the current SC3 non-interference requirements. (Section 2-1.1, Appendix F-4.9, F-4.13)	New	C	Nov-25	Nov-25	CT22

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Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Parameter Object - Attribute Access Clarifications	1	3.38	1. If the Descriptor Attribute 4 has the "Write Only Parameter" bit set, the Get_Attributes_All service shall return 0x2C (Attribute not gettable) with extended status 0x0001 which is the ID of the attribute that caused the issue. Clients can use Get_Attribute_Single or Get_Attribute_List to retrieve the readable attributes. (Table 5A-14.16) 2. For instance attribute 2 (Link Path Size) and attribute 3 (Link Path), Set is required if the Supports Settable Path bit (0) in the Descriptor (Instance Attribute #4) is TRUE. (Table 5A-14.7)	New and Existing	M	Apr-25	May-26	CT22
Concurrent Connections Cleanups	1	3.38	1. Electronic Key Format 5 (Serial Number) is not allowed for concurrent connection target endpoints that support more than one participant. A General Status 0x01 Extended Status 0x315 error shall be returned when any of the multiple endpoints receive a concurrent connection management service with a Format 5 Electronic Key. (Section 3-5.6.1.10) 2. Added a new Extended Status 0x416: CONCURRENT CONNECTIONS CONNECTION PATH MISMATCH (Table 3-5.37)	New and Existing	C	Apr-25	May-26	CT22
Response to Response Problem Mitigation	1	3.38	The Service parameter shall hold the service code of the requested service as defined by the Object referenced in the Request_Path parameter. Allowed range for this parameter is 0x00 – 0x7F. If the value exceeds this range, i.e. if the response bit 0x80 is set, a target shall drop the request with no reply. (Section 2-4.1.1) This request takes effect immediately for UDP Only interfaces; 12 months later for Full/TCP interfaces.	New and Existing	M	Apr-25	May-26	CT22
CIP Security UAP Usage of Network Segment	1	3.38	1. [User Authentication Session ID Network Segment] is added to Request Path of Message Router Request. (Section 2-4.1.1) 2. Any Request_Path that cannot be interpreted by a device's implementation of the Message Router shall result in General Status Code 0x04 (Path segment error), 0x05 (Path destination unknown) or 0x16 (Object instance does not exist) being returned. (Section 5A-3.6.2) 3. If the Request_Path contained a User Authentication Session ID Network Segment and the User Authentication Session ID cannot be paired with an authenticated session as documented in Volume 8: CIP Security, Chapter 2: CIP Common Security, a General Status Code 0x0F (Privilege violation) error shall be returned. (Section 5A-3.6.2)	New and Existing	C	Apr-25	Nov-26	CT22
Assembly Object Class Revision Attribute clarification	1	3.38	Revision 2 is required if no subsequent revision applies. (Table 5A-5.1)	New and Existing	C	Apr-25	May-26	CT22
Pull CIP Security Configuration	8	1.19	Added a new Pull Model for CIP Security Configuration (Section 4-4)	New and Existing	C	Apr-25	Nov-26	CT23
Update State Transition of Pull Model	8	1.19	Updated State Transition of Pull Model. (Section 5-4.9)	New and Existing	C	Apr-25	Nov-26	CT22
CRL Format Error Code	8	1.19	Added several new error codes for Apply_Config service of EtherNet/IP Security Object. (Table 5-4.21)	New and Existing	C	Apr-25	Nov-26	CT23
Ingress Egress Object Set_Rules Apply_Behavior clarification and Enhancement	8	1.19	1. Added a new Class attribute 12 (Capabilities) (Section 5-9.3.5) 2. Clarify the behavior of the Apply_Behavior parameter of Set_Rules service. (Table 5-9.3)	New and Existing	C	Apr-25	Nov-26	CT22
Electronic Key Segment correction	7C	1.06	Require to support Match Electronic Key checking. (Section 10-4.3)	New and Existing	C	Apr-25	May-25	CT22
Motion Device Axis Object revision update	9	1.14	1. Updated Motion Device Axis Object to revision 11. (Table 5-2.2) 2. Datatypes of several attributes are changed from ULINT to STIME. (Table 5-2.17)	New and Existing	C	Apr-25	Nov-26	CT22

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Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Connection Triad Enhancements for Redundancy Applications	1	3.37	Added a Conditional instance attribute 25 (Redundant Device ID) to Connection Manager Object which is required for originators that are capable of originating Concurrent Connections. Its value is used in Concurrent_Forward_Open/Large_Concurrent_Forward_Open, Get_Connection_Data and Search_Connection_Data service requests. (Table 3-5.3, Section 3-5.3.1.13, Table 3-5.27, Table 3-5.32 and Table 3-5.36)	New and Existing	C	Nov-24	May-26	CT22
Identity Object - State Transition from Major Recoverable Fault to Major Unrecoverable Fault	1	3.37	Added a transition path from Major Recoverable Fault state to Unrecoverable Fault state, also from Standby state to Unrecoverable Fault state. (Figure 5A-2.2, Table 5A-2.23)	New and Existing	M	Nov-24	May-26	CT22
Id Obj - Condition for Attr 25	1	3.37	This SE clarifies behavior of Get_Attributes_All default attribute values and sets Instance Attribute 25 (Application Profiles) as Conditional. The attribute is required if the device supports at least one application profile. (Table 5A-2.3)	New and Existing	C	Nov-24	May-26	CT22
Process Device Diag-Add Expansion Profile Diagnostics	1	3.37	Changed the data type for Class Attribute 13 (Profile Diagnostics) and Class Attribute 17 (Supported Profile Diagnostics) from LWORD to Array of Byte in Process Device Diagnostics Object. Also added Class Attribute 19 (Size of Profile Diagnostics). These three attributes are required if implementing Process Device Diagnostics Object. (Table 5B-19.6)	New and Existing	C	Nov-24	Nov-24	CT22
Non-PFS Cipher Suites for Constrained CIP Security	8	1.18	Added three Non-Perfect Forward Secrecy Pre-Shared Key Cipher Suites which are required for CIP Security Resource-Constrained Profile. (Table 3-5.5)	New and Existing	C	Nov-24	May-26	CT22
Update Token Transport Requirement	8	1.18	Added a new Conditional instance attribute 20 (I/O AuthhORIZATION Policy) to EtherNet/IP Security Object which provides users with the option to set up user authentication/authorization on just class 3 and unconnected messaging, while allowing for the ForwardOpen/ForwardClose to be done over a DTLS session. This attribute is required if the User Authentication Profile is supported, otherwise it must not be implemented.(Table 5-4.3, Section 5-4.4.20)	New and Existing	C	Nov-24	May-26	CT22
Ingress Egress Object for Ingress-only Devices	8	1.18	Instance attribute 2 (Egress Rules) of Ingress Egress Object was changed from Required to Conditional which is now optional for target-only devices. (Table 5-9.3)	New and Existing	C	Nov-24	May-26	CT21
Ingress Egress Object Clarifications and Enhancements	8	1.18	1. The PSK Identity of Pre-Shared Keys attribute (5) of EtherNet/IP Security Object shall be an ASCII-encoded string and shall not contain commas. (Section 5-4.4.5) 2. All strings in the rules of Ingress Egress Object shall be case sensitive and UPPERCASE. IP addresses shall be in dotted decimal notation, with no leading "0x" or "0". Ports shall be in decimal notation. Strings not conformant to this will result in error code 0xD6 for Ingress Rules, 0xD7 for Egress Rules. (Section 5-9.4.1.1, section, Section 5-9.4.2.2, etc.) 3. Ingress Egress Object becomes an Associated Communication Object and shall be reported in Associated Communication Object attribute 11 of Port Object. (Section 3-9.2.1.9) 4. Existing connections are to be dropped when Ingress Egress are automatically changed after Pull Model completes. (Section 5-9.4.1.2) 5. Device-Based Firewall Profile needs to be reported in Security Profiles attribute 2 and Security Profiles Configured attribute 3 of CIP Security Object. (Section 5-3.4.2, Section 5-3.4.3)	New and Existing	C	Nov-24	May-26	CT21
CIP Security setting shouldn't clear in Type II Reset	8	1.18	1. For a CIP Security device, all reset types of Identity Object shall only be accepted when sent over a CIP Security connection. (Section 4-3.1.3) 2. CIP Security settings shall be preserved when the device receives a Type 2 Reset of Identity Object. (Section 5-2.2)	New and Existing	C	Nov-24	May-26	CT22
Require Encrypt then MAC for AES-CBC	8	1.18	1. The Encrypt Then MAC extension (defined in RFC 7366) shall be supported when using any AES-CBC cipher suite. (Section 3-5.9.1) 2. The Supported Elliptic Curves extension shall be sent when using an Elliptic Curve cipher suite. (Section 3-5.9.2)	New and Existing	C	Nov-24	May-26	CT22
Clarify PSK Member Services Requirement	8	1.18	The previously required Member services of EtherNet/IP Security Object for the Resource-Constrained CIP Security Profile are now only required if the Send_Receive_Fragment service of Message Router Object is not supported. (Table 5-4.6)	New and Existing	C	Nov-24	May-26	CT21
LLDP Management - Last Change	2	1.34	Clarify that Last Change attribute of LLDP Management Object reports the value of sysUpTime taken from the last time that any entry in the LLDP Datastore of the device changed. (Table 5-16.3)	New and Existing	C	Nov-24	May-25	CT22
QoS PCP attributes	2	1.34	Added 7 new Conditional instance attributes to QoS Object which allows to set Priority Code Point (PCP) values. These attributes are required if the device supports sending 802.1Q frames. Attribute 9 and 10 also require CIP Sync to be supported.(Table 5-7.3 and Section 5-7.4.3)	New and Existing	C	Nov-24	May-26	CT22

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Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Clarify options after General Status "Reply data too large" (0x11)	1	3.36	1. XXTestWhen a CIP target device returns status 0x11 (Reply data too large), a client should retry the request with alternate access methods, such as Message Router Send_Receive_Fragment service (preferred), Get_Member service of the target object, or via connection opened with Large_Forward_Open. (Section 2-4.2) 2. A device supports only the Large_Forward_Open approach in such case will get an Advisory.	New and Existing	C	Apr-24	Apr-24	
Parameter Object - Get_Enum_String	1	3.36	The Enumerated String Number parameter of Get_Enum_String service was changed from USINT data type to USINT for bit string data type, else using the Data Type of attribute 5. (Table 5A-14.21)	New and Existing	C	Apr-24	Apr-24	
Process Device Diag-Profile Diag and Sim	1	3.36	1. Update and clarify some attributes of Process Device Diagnostics Object (Table 5B-19.8). 2. Allow all diagnostics instances to be configurable. (Section 5B-19.8, Table 5B-19.26, Table 6-43.13, Table 6-44.13, Table 6-45.17, Table 6-46.17, Table 6-47.17)	New and Existing	C	Apr-24	Apr-24	
Flow and Pressure Device Profiles- Units and File Object	1	3.36	1. Clarify that File Object is optional for the Flow and Pressure Process Device Profiles. Add Predefined File Object instance 0xCA for a device's Profile EDS File and Icon File. (Table 5A-42.27, Table 6-43.1 - Table 6-47.1) 2. Limit the engineering units supported for each profile. (Section 6-43.6.2.2.1, 6-44.6.2.2.1, etc.) 3. Correct the conversion factor for 2E0Ehex US Beer Barrels. (Section D-2.33)	New and Existing	C	Apr-24	Apr-24	
MDAO and Device Profile update	9	1.12	MDAO updated to Revision 10	New	C	Apr-24	Apr-24	

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Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Expand States Protected by CIP Security	8	1.17	1. Changes to security objects containing CIP Security configuration shall only be accepted when sent over a CIP Security connection even if the device is in the Factory Default state. (Section 4-3.1.3) 2. Changes to security related objects without containing CIP Security configuration shall be made over a CIP Security connection once the CIP Security Object is not in the Factory Default state. (Section 4-3.1.3)	New and Existing	C	Nov-23	Apr-25	
Update Originator Cipher Suite Requirements	8	1.17	Cipher suits required for a given profile applies to a device implementing that profile, no matter it is a Target or Originator. (Table 3-5.4 and Table 3-5.5)	New and Existing	C	Nov-23	Nov-23	
IANA Port Admin EDS Keyword	2	1.33	[IANA_Port_Admin] entry is required if a device supports TCP/IP Interface Object's instance attribute 14 (IANA Port Admin), otherwise not allowed. (Table 7-7.1).	New	C	Nov-23	Apr-25	
Ethernet/IP Usage Profile Updates	2	1.33	1. EtherNet/IP Usage Profiles was updated to allow a device support multiple usage profiles. (Table 11-3.1). 2. The EtherNet/IP Capability Item in the ListIdentity response shall only set bits corresponding to the features supported on the interface receiving the request, not all the interfaces supported by the device. (Table 2-4.5)	New	C	Nov-23	Nov-23	
Modbus Serial Link Object Clarification	7A	1.12	1. Data Bits and Stop Bits of Modbus Serial Link Object instance attribute 3 shall be encoded as binary not ASCII. (Table 5-6.10) 2. Modbus Serial Link Object bumped to Revision 2. (Table 5-6.1)	New and Existing	C	Nov-23	Nov-23	
Identity object Protection Mode attribute	7C	1.05	Identity Object Protection Mode attribute 19 is now allowed for Virtual IO-Link device. (Table 5-1.1)	New and Existing	C	Nov-23	Nov-23	

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Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Concurrent Connections	1	3.34	1. Introduce Concurrent Connections functionality to the CIP specification (Section 3-7). 2. Add new services and attributes to Connection Manager Object to handle Concurrent Connections, bump the object revision to 02 (Table 3-5.1 and 3-5.8). 3. Define new Connection Path rules for Concurrent Connections (Section 3-5.5.1.10, Appendix C-1.4.3.6.2). 4. Describe new CIP Routing behavior for Concurrent Connections (Section 10-2.2). 5. Add new entries to [Connection Manager] section in EDS file (Table 7-3.49). 6. Concurrent Connections packets use CRC to protect the integrity of packets (Appendix C-7).	New	C	Apr-23	Apr-23	
Device Type Revision	1	3.34	1. Introduce revision concept to Device Profile definition (Table 6-2.2). 2. Add a Supported Device Type Revision attribute 38 to Identity Object and bump its revision to 03 (Table 5A-2.1 and 5A-2.3) 3. Add new entry to [Identity Object] section in EDS file.	New	C	Apr-23	Apr-23	
Supporting Objects for Process Device Profiles	1	3.34	1. Add Process Measurement Value Object and Process Totalized Value Object for process field devices (Section 5B-21 and 5B-22) 2. Add new object class sections for these objects in EZ-EDS (Table 7-3.4).	New	C	Apr-23	Apr-23	
Flow Process Device Profile	1	3.34	Add three new Process Device Profiles: Coriolis Flow Device, Electromagnetic Flow Device and Vortex Flow Device (Table 6-5.1 and 6-5.2).	New	C	Apr-23	Apr-23	
Requirements for Process Device Profiles	1	3.34	Specify requirements for Process Device Profiles (Section 6-2.5).	New	C	Apr-23	Apr-23	
Pressure Process Device Profile	1	3.34	Add two new Process Device Profiles: Scaled Pressure Device and Standard Pressure Device (Table 6-5.1 and 6-5.2)	New	C	Apr-23	Apr-23	
Process Device Diagnostics Simulation Addition	1	3.34	Update Process Device Diagnostics Object Revision to 4 (Table 5B-19.5)	New and Existing	C	Apr-23	Apr-23	
LLDP Reception Clarification	2	1.32	Devices not implementing LLDP Reception are not allowed to support LLDP Data Store attribute 4 and Last Change attribute 5 of LLDP Management Object.	New and Existing	M	Apr-23	Apr-23	
LLDP Clarifications	2	1.32	1. Clarify that data in LLDP frames is sent in big-endian format. Deprecate the CIP Identification TLV with subtype 1 and create a new CIP Identification TLV with subtype 9 that is clearly specified as big endian (Section 9-8.3). 2. Make it possible for devices to support both the LLDP Date Table Object and SNMP at the same time (Table 5-15.3).	New and Existing	C	Apr-23	Nov-24	
PRP-HSR Updates	2	1.32	Add additional attribute 21 necessary to conform to the latest IEC 62439-3 standard for HSR.	New and Existing	C	Apr-23	Nov-23	
Improve error reporting	7C	1.04	Use object specific general status code to return IO-Link command errors (Table 5-3.4, 5-3.8 and 5-3.10).	New	C	Apr-23	Apr-23	
Support access to Index 0	7C	1.04	Use 0x10000 as the instance value for accessing Index 0 in IO-Link Service Parameter Object (Section 5-3).	New and Existing	C	Apr-23	Apr-23	
OctetStringT conversion	7C	1.04	Change the conversion of an OctetStringT to an array of USINT instead of previous SHORT_STRING (Table C-3.1)	New and Existing	C	Apr-23	Apr-23	
ArrayT conversion	7C	1.04	Change the Conversion Type value of an ArrayT to allow for 2 byte conversion types. (Table C-3.1).	New	C	Apr-23	Apr-23	
RecordT conversion type	7C	1.04	Add a conversion type for the IO-Link RecordT data type (Table C-3.1).	New and Existing	C	Apr-23	Apr-23	
TimeT STIME conversion	7C	1.04	The conversion between TimeT to STIME needs to use new constant (Appendix C-3.1.1)	New and Existing	C	Apr-23	Apr-23	
IO-Link Service Parameter object Device State conflict extended status	7C	1.04	Add Device State Conflict (0x10) and new Extended Status codes to IO-Link Service Parameter object service responses (Table 5-3.3 - 5-3.12).	New	C	Apr-23	Apr-23	
Expand PSK Usage Field	8	1.16	EtherNet/IP Security Object Revision bumps to 8, add a new Required PSK Usages Supported Class attribute (Table 5-4.2 and section 5-4.3.2).	New and Existing	C	Apr-23	Apr-24	
Member Services for PSK Attribute	8	1.16	Member services are required for Resource-Constrained CIP Security Profiles, optional for others (Table 5-4.6).	New and Existing	C	Apr-23	Nov-24	
Cipher Suite Requirements	8	1.16	Make several previously required cipher suites to recommended (Table 3-5.4 and 3-5.5).	New and Existing	C	Apr-23	Apr-23	
PSK Usage Clarification	8	1.16	Disallow multiple PSKs from being set that re-use a given identity value (Section 5-4.4.5).	New and Existing	C	Apr-23	Nov-23	
Certificate handling	8	1.16	CIP Security devices are required to support at least two dynamic instances of the Certificate Management Object (Section 5-5.1.1). CMO Revision becomes 2, Class attribute 2 and 3 are required now. Devices that already passed the conformance test and only support one dynamic instance may continue using just one dynamic instance. This will degrade the interoperability and robustness in systems, but it is recognized that devices might not have the resources to implement this change.	New and Existing	C	Apr-23	Nov-23	
Consumer Activity Monitor Usage Clarification	5	2.25	Add text in FRS78 indicating that the Consumer Activity Monitor timer should be reset to the remaining data age based on the last reception time stamp (Section 2-1.8.3.1, F-3.8.5, F-3.9.2.3).	New and Existing	C	Apr-23	Apr-23	
Tst52 Split	5	2.25	Split TST52 into four tests of TST132, TST133, TST134 and TST135 (Appendix F-2.6.2, Table F-3.11.5.2.1, F-3.11.5.2.4, F-5.1).	New	C	Apr-23	Apr-23	

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2022 PC 2

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Enumeration for String Data Types	1	3.33	Any Param entry whose type is string (STRING, STRING2 or SHORT_STRING) can also be enumerated using the Enum Keyword in addition to integer and bit string. (Section 7-3.6.6.2 and Table 7-3.26)	New	M	Nov-22	Nov-22	
LLDP SNMP MIB	2	1.31	Added requirements and reference for ODVA devices implementing the SNMP LLDP MIB. (Section 9-8.1) (https://www.odva.org/subscriptions-services/additional-tools/request-lldp-management-information-base)	New and Existing	C	Nov-22	Apr-23	
Safety Reset Type2 Clarification	5	2.24	Changed Soft-set MacID to Soft-set NodeID, Soft-set Baud Rate to Soft-set Communication Link Parameters (Table 5-4.21)	New and Existing	C	Nov-22	Apr-24	
TST130 Adding Running Conditions	5	2.24	Added running conditions for TST130. (Appendix F-5.1)	New	M	Nov-22	Nov-22	
Correct Reset Factory settings command code	7C	1.3	Identity Object Type 1 Reset shall cause IO-Link Master issue Restore factory setting command 0x82 (not 0x81) to the IO-Link Device. (Table 5-2.6)	New and Existing	M	Nov-22	Nov-22	
Ingress Egress Object	8	1.15	1. Added a new CIP Security Profile: Device-Based Firewall Profile (Table 8-1.1 and Section 8-2.1) 2. Added new Ingress Egress Object which is required by Device-Based Firewall Profile(Section 5-9) 3. Added Available Originator Cipher Suites and Allowed Originator Cipher Suites attributes to EtherNet/IP Security Object (Table 5-4.3)	New	C	Nov-22	Apr-24	
Correct EIPSO Reset Condition	8	1.15	EtherNet/IP Security Object Reset service will be accepted over any connection up until the CIP Security Object's state attribute transitions to Configured, at which point this Reset will only be accepted over a CIP Security connection. (Table 5-4.5.1)	New and Existing	M	Nov-22	Nov-22	
Make Wildcards Optional for SAN with Hostname	8	1.15	IP Address must be supported in SAN, Hostname and URI support in SAN are optional. (Section 5-4.4.17)	New and Existing	M	Nov-22	Nov-22	

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Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Product Authenticity Check	1	3.32	Added an Optional Product Identity Certificate attribute 39 (Table 5A-2.3) and a Conditional Certificate_Challenge service (Table 5A-2.18) to Identity Object.	New and Existing	C	Apr-22	Apr-22	
Register Object Data Access Rule Clarification	1	3.32	Clarify Register Object Direction and Size attributes are NV attributes, also clarify the Set are Optional for attribute 2-4. (Table 5A-2.2)	New and Existing	C	Apr-22	Apr-22	
Improve LLDP alignment with IEEE 802.1AB-2016	2	1.30	LLDP Specification was updated to align with IEEE 802.1AB-2016: 1. For LLDP Enable attribute 1 of LLDP Management Object, on set of Global Enable Bit 0 from 1 to 0, all existing table entries shall be removed. (Table 5-15.4) 2. LLDP Management Object msgTxInterval attribute 2 valid range was changed. Last Change attribute 5 meaning was changed. (Table 5-15.3) 3. The meaning of LLDP Data Table Object Last Change attribute 9 was changed. (Table 5-16.3) 4. Added LLDP Link State Transition requirements (Section 9-8.6)	New and Existing	C	Apr-22	Apr-22	
SAN Formatting Clarification	8	1.14	Clarify that only DNS Name, IP Address and Uniform Resource Identifier (URI) must be supported in Subject Alternative Name (SAN) within CIP Security certificates. (Section 5-5.7.1)	New and Existing	C	Apr-22	Apr-22	
CRL Clarification	8	1.14	1. The EtherNet/IP Security Object Certificate Revocation List attribute 8 now can hold an Array of CRLs rather than a single CRL and the object revision was bumped to 7. (Table 5-4.3) 2. Clarify that a certificate may only be revoked by the Certificate Authority which originally signed it. (Section 5-4.4.8) 3. Two kinds of GAA Format: one for Revision 1-6; another for Revision 7 and onward. (Table 5-4.11)	New and Existing	C	Apr-22	Nov-23	
Send Receive Fragment Requirement Date	8	1.14	The requirement of supporting Send_Receive_Fragment service was extended to November 2022.	New and Existing	C	Apr-22	Apr-22	

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2021 PC 2

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Find Next Object Instance Service Clarification	1	3.31	Clarify that Find_Next_object_Instance service is not supported at the instance level, even though the Instance ID value to use as the lower bound of the search is provided in the application path. (Appendix A-4.14)	New and Existing	C	Nov-21	Nov-21	
Clarify Protection Mode	1	3.31	CIP Security devices are required to allow certain authenticated requests while in Explicit and/or Implicit Protection mode. (Section 5A-2.3.1.16.1, Vol 8 section 5-2)	New and Existing	C	Nov-21	Nov-21	
File Object Download Transfer Clarification	1	3.31	1. Removed the summary text in Section 5A-42.5.6 to eliminate the redundancy and conflict to Table 5A-42.26. 2. Did the same change to previous revision of File Object which is listed in Appendix E-2.5.6.	New and Existing	C	Nov-21	Nov-21	
Set Access Rule Clarification 2021	1	3.31	An attribute with Settable (Set) Access rule shall be accessed by at least one of the set services. (Section 4-4.1)	New and Existing	C	Nov-21	Nov-21	
Cipher Suite Changes	8	1.13	1. Require GCM-based cipher suites be supported and change RSA-based cipher from required to optional for CIP Security endpoints . (Table 3-5.4 Section 5-4.4.6 and 5-4.9) 2. EtherNet/IP Security Object Allowed Cipher Suites attribute 4 shall only allow cipher suites that support confidentiality in the Factory Default state. PSK based cipher suites shall not be allowed by default. (Section 4-4.4)	New and Existing	C	Nov-21	Apr-23	
Conditional Support for Security Profiles Configured	8	1.13	Support for Security Profiles Configured attribute 3 of CIP Security Object will be required starting from April 2022.	New	C	Nov-21	Apr-22	
Pull Model Profile	8	1.13	1. Added a new EtherNet/IP Pull Mode Profile for devices supporting Pull Model.(Table 1-3.1)(Table 5-3.5) 2. All CIP Security devices must support Push model and optionally support Pull model. For devices supporting both mechanism, the Pull Model is the default mechanism for obtaining a certificate. (Section 4-3.4.1)	New and Existing	C	Nov-21	Nov-21	
PSK Usage Field	8	1.13	Added PSK Usage field to the Pre-Shared Keys attribute 5 of EtherNet/IP Security Object which brings EtherNet/IP Security Object to Revision 7. (Table 5-4.2 and Table 5-4.3)	New and Existing	C	Nov-21	Apr-23	
SAN Update	8	1.13	Check Subject Alternative Name attribute 17 of EtherNet/IP Security Object is optional for device with originator functionality. It must not be implemented by devices without originator capabilities. (Table 5-4.3)	New and Existing	C	Nov-21	Nov-21	
Make Certificate Signing Request Attributes (csrattrs) Optional	8	1.13	Requesting csrattrs to the EST server during configuration of Pull Model is changed from required to optional. (Section 4-3.4)	New and Existing	O	Nov-21	Nov-21	
Prevent DTLS Timeout Disable	8	1.13	Removed the ability to disable DTLS timeouts. (Table 5-4.3)	New and Existing	C	Nov-21	Apr-23	
LLDP Management Object Correction (published in PUB00346R0 in June 2021)	2	1.29	1. Definition correction to LLDP Enable attribute 1 for both LLDP Enable Array Length and LLDP Enable Array fields. 2. Access Rule of MsgTxHold attribute 3 was changed from Get to Set.	New and Existing	M	Apr-21	Apr-21	
LLDP Date Extension	2	1.29	1. LLDP enforcement date was extended from December 2021 to May 2022. 2. Clarify the LLDP implementation requirements: a device containing bridge(s) or implementing In-Cabinet Profile must support both LLDP transmission and reception; otherwise supporting LLDP transmission is required but LLDP reception support is optional. (Section 9-8.1)	New and Existing	M	Nov-21	May-22	
Electronic Key Segment for IO-Link Device	7C	1.02	1. The Electronic Key Compatibility bit 7 is moved from Minor Revision byte to Major Revision byte. (Appendix C-2) 2. In the Revision attribute 4 of Identity Object of the Virtual IO-Link Device, Major Revision bits 0-3 shall be IO-Link Protocol Minor Revision, bits 4-6 shall be IO-Link Protocol Major Revision. Minor Revision field shall be upper 8 bits of the IO-Link Device ID. (Section 5-2.2.3)	New and Existing	C	Nov-21	Nov-21	

ODVA Specification Mandatory Change List
2021 PC 1

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Time Sync Object Attribute Clarifications	1	3.30	1. Some instance attributes of Time Sync Object changed data types but no data length change. 2. Time Sync Object is at revision 5 which has a new conditional Associated Interface Labels attribute 31. Associated Interface Objects attribute 29 description is also clarified.	New and Existing	C	Apr-21	Apr-21	
Process Device Diagnostics Object Updates	1	3.30	1. Process Device Diagnostic Object Revision 3 is required. (Table 5B-19.5) 2. A required Supported Profile Diagnostics attribute 17 was added. (Table 5B-19.6)	New and Existing	C	Apr-21	Apr-21	
In-Cabinet EtherNet/IP Profile	2	1.27	1. A required EtherNet/IP Usage Item in ListIdentity response for devices implementing the In-Cabinet Usage profile. (Table 2-4.6) 2. Two conditional attributes were added to Ethernet Link Object which are required for In-Cabinet Usage Profile. (Table 5-5.3) 3. New Select Link Link Object, In-Cabinet Actual Topology Object and In-Cabinet Commissioning Object were added. (Section 5-17, 5-18 & 5-19) 4. LLDP Data Table Object and two new attributes are required for In-Cabinet Profile Gateway/Router devices. (Table 5-16.3) 5. New required LLDP TLVs for In-Cabinet Profile Gateways Nodes and End Nodes. (Section 9-8.3)	New	C	Apr-21	Apr-21	
Active Certificate Deletion Behavior	8	1.12	Added behavior specification about deletion of an active device certificate. (Section 5-4.4.6 and 5-4.9)	New and Existing	C	Apr-21	Apr-22	
Constrained CIP Security	8	1.12	1. Added a lightweight Constrained CIP Security Profile for resource-constrained devices. (Table 1-3.2) 2. Defined a User Authentication/Authorization Proxy scheme for resource-constrained devices and CIP Security Object is updated to support this new profile. (Section 2-6 and section 5-3.4) 3. Added two new required Pre-Shared Key Cipher Suites. (Table 3-5.5) 4. Updated EtherNet/IP Security Object to revision 6 to support multiple PSKs needed by Constrained CIP Security Profile. (Section 5-4.3 and 5-4.4)	New	C	Apr-21	Apr-21	
Update EST Service Name	8	1.12	Request CIP Endpoints to look for EST server _est-cip._tcp service instead of _est._tcp service for CIP certificates. (Section 4-3.4.3.2.1)	New and Existing	C	Apr-21	Apr-21	
Send Receive Fragment Requirement	8	1.12	Ethernet/IP devices implemented EtherNet/IP Security Profiles are required to support Send_Receive_Fragment service, Pull Model and File Object. (Table 8-2.1)	New and Existing	C	Apr-21	Apr-21	
Certificate Signing Request with Subject Alt Name	8	1.12	1. Added Subject Alternative Name to Create_CSR service which updated Certificate Management Object to revision 2. (Table 5-5.15). Conformant CIP Security devices shall be updated to support the new service parameter. 2. A optional Check Subject Alternative Name attribute was added to EtherNet/IP Security Object. (Table 5-4.3)	New and Existing	C	Apr-21	Nov-22	
Requirement for Output Ownership	5	2.22	OCPUNID is required only for connection points that directly control 'safety outputs' within an 'output device'. (Section F-3.10.1.4) (Section 5-4.2)	New and Existing	C	Apr-21	Apr-21	
Addition of base format deprecation grace period	5	2.22	From 1/1/2021 to 1/1/2022, target-only device(s) seeking a new Declaration of Conformity from ODVA without base format deprecation will be given a conformance warning. After 1/1/2022 target-only device(s) which have not deprecated the base format will not be able to obtain a new Declaration of Conformity from ODVA.	New and Existing	C	Apr-21	Apr-21	

ODVA Specification Mandatory Change List
2020 PC 2

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
CIP Security Session ID	1	3.29	The User Authentication Session ID Network Segment is added (Section C-1.4.3) to support CIP Security User Authentication Profile.	New and Existing	C	Nov-20	Nov-20	
Process Device Diagnostics Object Updates	1	3.29	1. Process Device Diagnostic Object Revision 2 is required. (Table 5B-19.4) 2. A Optional Recommended Action attribute 11 was added. (Table 5B-19.6) 3. Class attribute 16 User Diagnostic Groups was changed from Required to Optional. (Table 5B-19.1)	New and Existing	C	Nov-20	Nov-20	
Serial Number E-key Correction	1	3.29	New status code 0x13A (Serial Number Mismatch) (Table 3-5.34)(Table 5A-3.33)	New and Existing	C	Nov-20	Nov-20	
Identity Object Instance Level GAA Response	1	3.29	1. Identity Object Revision 2 is defined. For devices support revision greater than 1, GAA response shall include attribute 14, 19-22 if those attributes are implemented. (Table 5A-2.11) 2. Issue Advisory for devices only support revision 1.	New	C	Nov-20	Nov-20	
CIP Security User Authentication Profile	8	1.11	1.The newly added CIP Security User Authentication Profile will provide user level authentication and basic authorization. (Table 1-3.2) 2. Added three new CIP objects: Authority Object, Password Authenticator Object and Certificate Authenticator Object. (section 5-2) 3. A updated format of CIP Security Item in ListIdentity response. (Table 3-5.1) 4. CIP Security Object is in Revision 4 and add new Required Security Profiles Configured instance attribute 3. (Table 5-3.1 and Table 5-3.2)	New	C	Nov-20	Apr-22	
Objects Cleanup	8	1.11	1. Kick_Timer service of CIP Security Object shall only be accepted in Configuration In Progress state otherwise shall return status 0x0C (section 5-3.7.2) 2. When Delete service is used to delete an static instance, status code 0x2D shall be returned, not status 0x0C. (section 5-5.5.2) 3. Kick_Timer service of EtherNet/IP Security Object shall only be accepted in Configuration In Progress state otherwise shall return status 0x0C (section 5-4.7.2)	New and Existing	M	Nov-20	Nov-21	
Modification of Max Fault Count	5	2.21	1. The Max_Fault_Number parameter in Safety Open is changed from a range to a constant 2. (section 2-6.1) 2. The Max Fault Number attribute 22 is changed to have a fixed value 2 and Get only. (Table 5-6.2) 3. The Max_Fault_Number field of Safety Network Segment is changed to a fixed value 2. (Table C-5.1) 4. TST112, TST117, TST9, TST118, TST10, TST119, TST95 are all updated to use Max_Fault_Number = 2 (F-3.6.2, F3.9.2, F-3.4.2, F-4.11)	New and Existing	M	Nov-20	Nov-20	

ODVA Specification Mandatory Change List
2020 PC 1

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Unit Code cleanup	1	3.28	Update Symbols for several Engineering Units, such as x2609, x260A, x261A, x2621, etc. (Section D-2.7, D-2.25)	New and Existing	M	Apr-20	Apr-20	
Member List Clarifications	1	3.28	1. Assembly Object instance attribute 1 and 2 clarification (Table 5A-5.4). 2. Clarify that the padding between Connection Point members shall be represented as null members in the Connection Point Member list. (section 4.8.1) 3. Correct Standard Network Diagnostic Assmby Content and Ordering. (Table 5A-5.15) 4. Explain how to handle padding in Get_Connection_Point_Member_List service. (section A-4.23.1)	New and Existing	C	Apr-20	Apr-20	
CIP Security Object Reset	8	1.10	Specify CIP Security Object Revision 3 which adds a Required Reset service. (Table 5-3.5)	New and Existing	M	Apr-20	Apr-21	
DTLS Extensions for UDP-Only Transport	8	1.10	1. For UDP-only EtherNet/IP security device, DTLS is used for all CIP communications sent in a CIP Security context. (Section 3-2.1) 2. New StartDTLS command (section 3-5.3.2) 3. Specify EtherNet/IP Security Object Revision 5 which adds new UPD-only Policy attribute. (Table 5-4.3)	New	C	Apr-20	Apr-20	
UDP-Only EtherNetIP for Constrained Devices	2	1.26	1. Specify requirements for a UDP-only EtherNet/IP solution which causes changes in handling of Encapsulation commands and UCMM. (Table 2-3.2) 2. ListIdentiy reply has one new EtherNet/IP Capability Item. (Table 2-4.5, Table 2-6.3) 3. Introduce the EtherNet/IP Transports Application Profile. (Chapter 11) 4. TCP/IP Interface Object Encapsulation Inactivity Timeout attribute is not allowed for UDP-Only EtherNet/IP Transport Profile. (Table 5-4.3)	New	C	Apr-20	Apr-20	
Unit Code cleanup	7B	1.2	Update Symbols of several Engineering Units for HART devices. (section D-1.1)	New and Existing	M	Apr-20	Apr-20	
Base Format Deprecation	5	2.20	Remove the requirement to implement and test the Base Format. (Table 2-1.3)	New and Existing	M	Apr-20	Apr-20	
Test TST42, TST43 and TST44 Corrections	5	2.20	Update TST42, TST43 and TST44 to accept correct error code. (F-3.10.1.2, F-3.10.1.3,	New and Existing	M	Apr-20	Nov-21	
Cleanup Configuration Procedure Guidelines	5	2.20	Remove class 3 connection requirement for SNCT configuration data transfer so SRS138 was removed from TST55. (F-3.11.5.5)	New	M	Apr-20	Nov-21	
Switch change detect	5	2.20	Remove the requirement for a background test of the switches in safety devices so FRS350, FRS351 and FRS 354 were removed from TST50 (F-3.11.2); FRS350 and RSR364 were removed from TST108 (F-3.11.3).	New	M	Apr-20	Apr-20	

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2019 PC 2

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
File Object Clarifications & Extensions	1	3.27	1. Specify File Object Revision 3 which has new attribute 12 and different behavior (Table 5A-42.27) than rev 1 or 2. CIP Security device is required to support revision 3. 2. New Optional Encoding parameter to Create service (Table 5A-42.10).	New and Existing	C	Dec-19	Jun-21	
Assembly Object Class Revision Attribute clarification	1	3.27	Assembly Object Revision attribute value can be either 02 or 03 (Table 5A-5.3).	New and Existing	C	Dec-19	Dec-19	
Orphan Certificate Cleanup	8	1.9	1. Specify CIP Security Object Revision 2 which adds a Required Object_Cleanup service (Table 5-3.9). 2. Update Apply Behavior Flag parameter for Apply_Config service of EtherNet/IP Security Object (Table 5-4.12).	New and Existing	C	Dec-19	May-19	
EIPSO Reset Condition	8	1.9	Reset service must be sent over a TLS session conditional on the EtherNet/IP Security Object being in the configured state. (Section 5-4.5.1)	New and Existing	C	Dec-19	Dec-19	
EIPSO State Addition	8	1.9	Specify EtherNet/Ip Security Object Revision 4, added new Pull Model Disabled state and changed Attribute #13 to Get only. Stte Event Matrix Table 5-14.14 was updated with the new state.	New and Existing	C	Dec-19	Dec-19	
LLDP	2	1.25	1. LLDP Management Object (0x109) and LLDP Data Table Object (0x10A) definition are added (Section 5-15 and Section 5-16). 2. Specify ODVA specific implementation of the Link Layer Discovery Protocol (LLDP) (section 9-8). If LLDP protocol is supported, LLDP Management Object shall be implemented. If receive mode is implemented, either LLDP Data Table Object or SNMP shall be implemented. 3. EtherNet/IP Devices undergoing certification for the first time and multi-port devices receiving an update that adds CIP functionality are required to implement LLDP protocol.	New and Existing	M	Dec-19	Dec-21	

ODVA Specification Mandatory Change List
2019 PC 1

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Standard Network Diagnostic Assy	1	3.26	1. Assembly Object Revision attribute should be 3, 1 and 2 are only allowed for Static Assemblies (Table 5A-5.3). New Conditional attribute Member List Signature (Table 5A-5.4). 2. New Conditional Get_Connection_Point_Member_List service for Connection Manager, Time Sync Object (Table 3-5.3, Table 5B-2.17).	New and Existing	C	Apr-19	Nov-20	
Identity Object Reset Service Clarification	1	3.26	1. Reset service is only required for instance 1. 2. Devices that reset the whole device if a Reset has been directed to Instances greater than 1 will be non-conformant.	New and Existing	C	Apr-19	Apr-20	
DTLS Timeout Enhancement	8	1.8	EtherNet/IP Security Object Revision updates to 3. New required attribute DTLS Timeout is added for CIP Security device.	New and Existing	C	Apr-19	Apr-19	
Requiring CIP Security for Services	8	1.8	After a device's CIP Security Object has attained the CONFIGURED state configuration changes must only be accepted if the changes are made over a CIP Security connection for File Object, TCP/IP Object and Ethernet Link Object (Section 4-3.1.3).	New and Existing	C	Apr-19	May-19	
CMO State Machine Clarification	8	1.8	Verify_Certificate service clarification and CMO State clarification. (Table 5-5.17 and Table 5-5.18)	New and Existing	C	Apr-19	Apr-19	
Feedback Ratio	5	2.18	Add new Conditional attributes and services to Safety Dual Feedback Channel Object for multiport safety devices. (Section 5-4)	New and Existing	C	Apr-19	Apr-19	

ODVA Specification Mandatory Change List
2018 PC 2

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
Common Object Class EDS Correction	1	3.25	Object_Name and Object_Class_Code keywords are required in the [Assembly], [Parameter], [Group] section of eds file if such object exists in the device.(Table 7-3.32, Table 7-3.5, Table 7-3.29.)	New and Existing	M	Nov-18	Apr-19	
HART Hooks	1	3.25	New required attributes are added to Identity Object for HART devices (Table 5A-2.3)	New	C	Nov-18	Nov-18	
File Instance Clear_File and Save Params	1	3.25	Clear_File service shall not clear File Save Parameter. (Section 5A-42.5.7)	New and Existing	M	Nov-18	Nov-18	
STIME correction	1	3.25	STIME shall be data type ULINT not LINT.	New and Existing	M	Nov-18	Nov-18	
Remove Integrity Profile	8	2.17	Integrity Profile is obsolete for CIP Security device.	New and Existing	M	Nov-18	Nov-18	

ODVA Specification Mandatory Change List
2018 PC 1

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
System Time Definition	1	3.24	Improve elementary data type for System Time (STIME) (Table C2.1, Section C-3.3, Section 7-3.5.1.12)	New and Existing	M	Apr-18	Apr-18	
Invalid Connection Size Status Code	1	3.24	Allow an exception for CIP-Modbus translators to use Status Code 0x109 (Table 3-5.33)	New and Existing	M	Apr-18	Apr-18	
Pull Model	8	1.6	Pull Model is a new mandatory capability of CIP Security devices. (Section 4-3, 5-4, 5-5, 6-5.3)	New and Existing	C	Apr-18	May-21	
EIP Security Object IF Linkage	8	1.6	Each CIP Security device with more than one IP address shall support the Port Object and the Associated Communication Objects attribute. (Section 5-4.1)	New and Existing	C	Apr-18	Apr-18	
Multiport Safety Devices	5	2.17	Add new Required attributes and services of Safety Supervisor Object for multiport safety devices. (Section 5-4)	New and Existing	C	Apr-18	Apr-18	

ODVA Specification Mandatory Change List
2017 PC 2

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
PTP_Leap_Seconds_Attribute	1	3.23	a. Revision Class attribute can be 3 or 4 (required for Master capable device). (Section 5B-2.3) b. New conditional attribute 30. (Section 5B-2.4)	New and Existing	C	Nov-17	May-19	
Port Type 0 Associated Communication Objects Issue	1	3.23	a. Port Type and associated objects classification. (Table 3-7.4) b. Associated Communication Object attribute clarification. (Section 3-7.2.1.9)	New and Existing	C	Nov-17	Nov-17	
CIP Sync over PRP	1	3.23	A new PTP profile for PRP (Table 5B-2.20)	New and Existing	C	Nov-17	Nov-17	
Connection Manager Error Codes Updates	1	3.23	New Connection Manager Error Codes (Table 3-5.33)	New and Existing	C	Nov-17	Nov-17	
Get-Set_Attribute_List Clarifications	1	3.23	Clarification of Get/Set_Attribute_List service (Section A-4.3 and Section A-4.4)	New and Existing	C	Nov-17	Nov-18	
Commissioning Updates	8	1.5	Enhanced commissioning requirements. (Section 4-3 and section 5-3)	New and Existing	C	Nov-17	Nov-17	
Enhance Certificate Trust	8	1.5	a. New required Trusted Identities attribute of EtherNet/IP Security Object (Section 5-4.4) b. Clarification of Certificate Management Object (Section 5-5.4)	New and Existing	C	Nov-17	Nov-17	
Correct CIP Security Object Get Attr All	8	1.5	Correct error in CIP Security Object instance level Get_Attribute_All response layout (Table 5-3.8)	New and Existing	C	Nov-17	Nov-17	
Secure CL3 and Non-Secure CL1 Clarification	8	1.5	Guideline on how to open non-secure Class 0/1 connection via secure UCMM or Class 3 connection (Section 3-5.7.2.4)	New and Existing	C	Nov-17	May-18	

ODVA Specification Mandatory Change List
2017 PC 1

Topic	Volume	Edition	Description	Scope of Products Impacted	Scope of Change	Publish Date	Effective Date	Test Available in CT Rev
File Object Enhancements	1	3.22	a. Revision Class attribute can be 1 or 2. (Section 5A-42.2) b. Changed definition of the File Save Parameters attribute. (Section 5A-42.2.1.8) c. State Event Matrix change for Download Transfer, First-and-last and Upload_Transfer event. (Table 5A-42.26)	New and Existing	C	Apr-17	Nov-17	
PTP port number association	1	3.22	a. Associated Interface Objects attribute is added to Time Sync Object to declare the PTP port number association. (Table 5B-2-3) b. [AssociatedInterfaceObjects] Entry Keyword is added to eds file. (Section 7-3.6.6.1)	Only New	C	Apr-17	Nov-17	
Missing Item Count	8	1.4	Added Item Count to CPF Item for Unconnected Message over UDP for DTLS. (Table 3-5.4)	New and Existing	M	Apr-17	Apr-17	
Null Fwd Open Clarification	8	1.4	Specify how a Null ForwardOpen should be sent in the presence of CIP Security. (Section 3-7)	New and Existing	C	Apr-17	Apr-17	
Cert Format Clarification	8	1.4	Certificate Encodings Flag attribute and Certificate Encoding attribute are added to Certificate Management Object to specify certificate format. (Section 5-5.3.3 and Section 5-5.4.1)	New and Existing	M	Apr-17	Apr-17	
PSK Format Clarification	8	1.4	Specify encoding format for Pre-shared keys. (Section 5-4.4.5)	New and Existing	M	Apr-17	Apr-17	
MCAO_Not_Required	9	1.1	A Motion Control Axis Object or a vendor specific equivalent construct needs to be in CIP Motion Controller. (Section 1-2.2)	New and Existing	C	Apr-17	Apr-17	
Enhancements for PRP HSR	2	1.23	a. PRP/HSR Nodes Table with Active Status attribute is added to PRP/HSR Table Object. (Section 5-14.3.3.1) b. Get_Member service is now Required for PRP/HSR Table Object. (Table 5-14.4) c. Diagnostic attributes 17 - 20 are added to PRP/HSR Protocol Object. (Table 5-13.3)	New and Existing	C	Apr-17	Nov-17	