

Req ID	Requirement name	Need	Status	ap- pli- cation Support	if sup- ported	IEC- 62443-4- 2 tests reference	CIP recommendation
CR-Authorization 2.1 enforcement	TRUE	FALSE	Completed	https://github.com/IEC62443-4-2	https://github.com/IEC62443-4-2	For local interface, file and directory access control must be configured using ACL, chmod or a similar effective mechanism. For network interface, user should create user groups for each protocols, e.g. apache(web server), and configure file and directory access control using ACL or a similar effective mechanism for each users in these groups. Access permissions and ACL shall be reviewed periodically.	
CR-Authorization 2.1 enforcement (for all users (humans, software processes and devices))	TRUE	FALSE	Completed	https://github.com/IEC62443-4-2	https://github.com/IEC62443-4-2	project/cip- package-testing/cip- security- tests/- /tree/master/iec- security- tests/singlenode- testcases/TC_CR2.1_1	
CR-Permission 2.1 mapping to roles	TRUE	FALSE	Completed	https://github.com/IEC62443-4-2	https://github.com/IEC62443-4-2	project/cip- package-testing/cip- security- tests/- /tree/master/iec- security- tests/singlenode- testcases/TC_CR2.1_1	
CR-Supervisor 2.1 override RE(3)	TRUE	FALSE	Completed	https://github.com/IEC62443-4-2	https://github.com/IEC62443-4-2	Since the privileges/supervisor project/cip-overrides are application specific, this requirement must be implemented at application level	
CR-Dual 2.1 approval RE(4)	FALSE	FALSE	SEA.	None	This is for SL-4		

Req ID	Requirement name	Need applicable	Status if supported	IEC-62443-4-2 tests	CIP recommendation
CR-2.2	Wireless use control	FALSE	FALSE	SEA. None	This requirement can not be supported by CIP. However, CIP has following recommendations for meeting this requirement SYSTEM: 1. Every interface needs to use pam or similar authentication 2. Network control on a system level needs to adhere to security best practices APP: 1. Support the ability to disable SSID broadcast function 2. Support client white-list function 3. Support alarm on known vulnerable encryption (e.g., WEP) 4. Record client connection events 5. Support ACL integration 6. Application should not use vulnerable protocols underneath
CR-2.3	Use control for portable and mobile devices	FALSE	FALSE	SEA. None	There is no component level requirement
SAR-2.4	Mobile code	FALSE	FALSE	SEA. None	This requirement only applies to Software Applications
SAR-2.4	Mobile code - RE(bu-then-ticity check	FALSE	FALSE	SEA. None	This requirement only applies to Software Applications
EDR-2.4	Mobile code	FALSE	FALSE	SEA. None	This requirement is not supported by CIP. Embedded devices only need to support this requirement if they utilize mobile code technologies such as Java, USB ports (autorun)
EDR-2.4	Mobile code - RE(bu-then-ticity check	FALSE	FALSE	SEA. None	Same as EDR-2.4
HDR-2.4	Mobile code	FALSE	FALSE	SEA. None	It's for host devices
HDR-2.4	Mobile code - RE(bu-then-ticity check	FALSE	FALSE	SEA. None	It's for host devices
NDR-2.4	Mobile code	FALSE	FALSE	SEA. None	It's not applicable to CIP same as EDR-2.4

Req ID	Requirement name	Need supported by CIP	Status if supported by IEC-62443-2 tests	CIP recommendation
ND-2.4	Mobile authentication check	FALSE	None	It's not applicable to CIP same as EDR-2.4
CR-2.5	Session lock	TRUE	Added package openssh	CIP added openssh package to meet this requirement. However, it's application developer's responsibility to configure timeout period for the session as well as terminating the session after timeout. This can be implemented in many ways hence it's left to CIP users.
CR-2.6	Remote session termination	TRUE	Added package openssh	Same as CR-2.5
CR-2.7	Concurrent session control	TRUE	Added pam and openssh package	Same as CR-2.5
CR-2.8	Auditable events	TRUE	Added package auditd	This requirement is supported by CIP. However, application needs to configure applicable types of events for audit, all such events should be recorded which should be made available
CR-2.9	Audit storage capacity - allocation	TRUE	Added package auditd and syslog-ng	This requirement is supported by CIP. However, application needs to configure log storage capacity, and when logs should be discarded after reaching certain configured storage limit.
CR-2.9	Warn when audit record storage capacity threshold reached	TRUE	Added package auditd and rsyslog	Same as CR-2.9 Steps to get this done: 1. Create a directory project/cip-testing/security-tests/-tree/master/iec-security-tests/singlenode-testcases/TC_CR2.9-RE1_1

Requirement ID	Requirement name	Need ap- pli- cation	Status if sup- ported	IEC- 62443-4- 2 tests reference	CIP recommendation
CR-Response 2.10	audit pro- cess- ing failures	TRUE	FALSE	SE- progress- https://github.com/cip-project/cip-auditd and rsyslog. Applications need to harness testing/cip- capabilities of these packages and demonstrate to security- tests/- /tree/master/iec- security- tests/singlenode- testcases/TC_CR2.10_1	CIP-001 supports this requirement by adding packages project/cip-auditd and rsyslog. Applications need to harness testing/cip- capabilities of these packages and demonstrate to security- tests/- /tree/master/iec- security- tests/singlenode- testcases/TC_CR2.10_1
CR-Timestamp 2.11		TRUE	FALSE	SE- pack- age chrony	https://github.com/cip-project/cip-testing/cip- security- tests/- /tree/master/iec- security- tests/singlenode- testcases/TC_CR2.11_1
CR-Time 2.11	synchronization RE(1)	TRUE	FALSE	SE- pack- age chrony	https://github.com/cip-project/cip-testing/cip- security- tests/- /tree/master/iec- security- tests/singlenode- testcases/TC_CR2.11_1
CR-Protection 2.11	source integrity RE(2)	FALSE	FALSE	SEA.	None This is for SL-4
CR-Non- 2.12	repudiation	TRUE	FALSE	SE- pack- ages au- dits and syslog- ng	https://github.com/cip-project/cip-testing/cip- security- tests/- /tree/master/iec- security- tests/singlenode- testcases/TC_CR2.12_1
CR-Non- 2.12	repudiation RE(1) for all users	FALSE	FALSE	SEA.	None This is for SL-4

	Need ap- pli- cation	Status if sup- ported	IEC- 62443- 2 tests reference			
Req ID	Requirement name	Need by CIP	Status if supported	CIP recommendation		
EDR-2.13f	Use physical diagnostic and test interfaces	FALSE	TRUE	N.A.	None	SYSTEM and HW: Physical diagnostic and test interfaces need to be protected from unauthorized access, if they provide the ability to execute commands on the system, affect its core functionality or read out non public data. Protection could be done by physical access restriction and/or an authorization method similar to the productive authorization methods described in this document. The Level of protection needed has to be assessed via a threat and risk analysis. Also, it needs to carefully consider the necessity of installing test interfaces. In particular, it is desirable to remove the JTAG interface in the final production because it may cause unexpected behavior for even supplier due to non-public instructions to the processor for hardware debugging.
EDR-2.13g	Active monitoring RE(1)	TRUE	TRUE	Complete	https://github.com/IEC62443-2-13/IEC62443-2-13-TestCases/	IEC62443-2-13 supports this requirement by adding required packages. In order to meet this requirement application needs to do logging when diagnostic and test interfaces are accessed. All such interfaces should be considered as part of application or system threat model. If there are some interfaces which are used only during design and development , such interfaces should be removed before devices are shipped out.
HDR-2.13f	Use physical diagnostic and test interfaces	FALSE	TRUE	N.A.	None	This requirement is for host devices
HDR-2.13g	Active monitoring RE(1)	TRUE	FALSE	N.A.	None	Same as HDR-2.13