

CP1		Active							ECAC+	
INF10.2		Stakeholders' SWIM PKI and cyber security								
REG	ASP	MIL	APO	USE	INT	IND	NM	MET	AIS	USP

Subject matter and scope

This Objective is dealing with the Stakeholders' SWIM PKI and cybersecurity. It aims at implementing basic/generic public key infrastructure management at each civil or military stakeholder, in line with their own Security Management System approved by their National Supervisory Authority (NSA). The local implementation may differ depending on whether the stakeholders will become a CA (Certificate Authority) themselves or use the European Common Aviation PKI (EACP) to generate certificates.

The stakeholder's local implementation includes two options (the options are also addressed in the description of the individual SLoAs):

- If the stakeholder decides to develop its own PKI:
 - o definition of local policies and procedures for authorising and mandating local organisation to do certificate management in compliance with EACP policies;
 - o implementation of audit programmes ensuring continuous compliance with common and local policies and standards;
 - o implementation of its own local PKI while benefiting from the interoperability with other PKIs by using the EACP solution;
 - o adaptation of systems (equipment and procedures) to use local certificates and EACP services.
- If the stakeholder decides to use the EACP solution
 - o Use of EACP policies and procedures for authorising and mandating local organisation to use EACP certificates and services;
 - o implementation of audit programmes ensuring continuous compliance with EACP policies and standards;
 - o adaptation of systems (equipment and procedures) to use EACP solution;
- Whatever the decision will be, the following activities must be operated:
 - o training of technical personnel;
 - o monitoring and control, e.g. establish a local or multi-stakeholders Security Operations Centre (or equivalent) to monitor and protect the IT systems against cyber-attacks.

Combining both options is a valid and acceptable approach (they are not exclusive) as:

- National regulation may impose to use a national PKI for critical infrastructure or operator of essential service or government-related organisations;
- Some stakeholders may already have a PKI that would have to be upgraded to be auditable and conform with EACP solution and they may wish to keep on using it;
- Some stakeholders may decide to implement a local PKI for internal or specific uses and use EACP for other purposes.

System requirements:

Stakeholders shall implement, on one hand a Public Key Infrastructure (PKI) and, on the other hand cyber-security monitoring and control means. To implement the PKI, stakeholders have two main options:

- To use the European Aviation Common PKI (EACP) solution. In such case, stakeholders must:
 - o define the local framework to use digital certificates (policies, procedures);
 - o implement audit programmes to ensure that their organisation and its policies & procedures are auditable and that consequently they can be trusted to use EACP certificates and thus by parties with whom information exchanges are secured using EACP digital certificates;
 - o adapt their systems to use the EACP solution (e.g. access to EACP certificate publication and validation services);
 - o train their staff to ensure that they have the required demonstrated level of competence to use EACP digital certificates and services.
- To deploy their own local PKI and to benefit from the EACP solution only to ensure the interoperability of their local PKI with other stakeholders. In such case, stakeholders must:
 - o define the local framework to deploy their local PKI (policies, procedures). If stakeholders want to benefit from the EACP interoperability and validation services, they will have to ensure that the policies and procedures of their local PKI is also compliant with EACP framework trust framework;
 - o implement audit programmes to ensure that their organisation and its policies & procedures are auditable and that consequently they can be trusted to benefit from EACP interoperability service and thus by parties with whom information exchanges are secured using EACP interoperability and validation services;
 - o adapt their systems to use their local PKI solution as well as EACP validation service;
 - o train their staff to ensure that they have the required demonstrated level of competence to use their local digital certificates and EACP interoperability and validation services.

Combining both options is a valid and acceptable approach (they are not exclusive) as:

- o National Regulation may impose to use a national PKI for critical infrastructure or operator of essential service or government-related organisations;
- o some stakeholders may already have a PKI that would have to be upgraded to be auditable and conform with EACP solution and they may wish to keep on using it;
- o some stakeholders may decide to implement a local PKI for internal or specific uses and use EACP for other purposes.

NOTE: For a description of the EACP solution, see Family 5.1.1 of the Deployment Programme.

NOTE FOR MILITARY AUTHORITIES: It is the responsibility of each military authority to review this Objective IN ITS ENTIRETY and address each of the SLoAs that the military authority considers RELEVANT for itself. This has to be done on top and above of the review of "MIL" SLoAs which identify actions EXCLUSIVE to military authorities.

Applicability Area(s) & Timescale(s)

Applicability Area 1	All EU SES States		
Applicability Area 2	Albania, Azerbaijan, Moldova, Montenegro, Serbia, Türkiye, United Kingdom		
Timescales:	From:	By:	Applicable to:
Initial Operational Capability	01/01/2021		Applicability Area 1 + Applicability Area 2
Full Operational Capability / Target Date		31/12/2025	Applicability Area 1 + Applicability Area 2

References

European ATM Master Plan

OI step -	[IS-0901-A]-SWIM-TI Yellow Profile for Ground/Ground (G/G) information sharing						
Enablers -	REG-0519	SWIM-GOV-05a	SWIM-INFR-05a	SWIM-NET-01a	SWIM-SUPT-01a	SWIM-SUPT-03a	
Legend:	WXYZ-001	Covered by SLoA(s) in this objective	WXYZ-002 zzz	Covered by SLoA(s) in another objective Objective covering the enabler		WXYZ-003	Not covered in the Implementation Plan

Applicable legislation

Regulation (EU) 2021/116 on the establishment of the Common Project One

Essential Operational Changes

ATM Interconnected Network
Airport and TMA performance

SESAR Solution

#46 - SWIM Yellow Profile

ICAO GANP - ASBUs

SWIM-B2/3 SWIM registry

Deployment Programme

5.2.1 Stakeholders' SWIM PKI and cybersecurity

European Plan for Aviation Safety

- none -

Operating Environments

Airport
En-Route
Network
Terminal Airspace

Stakeholder Lines of Action (SLoAs)

INF10.2	Stakeholders' SWIM PKI and cyber security
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SloA ref.	Title	From	By
INF10.2-ASP01	Local PKI framework	01/01/2021	31/12/2025
INF10.2-ASP02	Continuous PKI audit process has been set up	01/01/2021	31/12/2025
INF10.2-ASP03	Adapt systems to use PKI	01/01/2021	31/12/2025
INF10.2-ASP04	Implement local PKI	01/01/2021	31/12/2025
INF10.2-ASP05	Training	01/01/2021	31/12/2025
INF10.2-ASP06	Implement cyber monitoring and control	01/01/2021	31/12/2025
INF10.2-APO01	Local PKI framework	01/01/2021	31/12/2025
INF10.2-APO02	Continuous PKI audit process has been set up	01/01/2021	31/12/2025
INF10.2-APO03	Adapt systems to use PKI	01/01/2021	31/12/2025
INF10.2-APO04	Implement local PKI	01/01/2021	31/12/2025
INF10.2-APO05	Training	01/01/2021	31/12/2025
INF10.2-APO06	Implement cyber monitoring and control	01/01/2021	31/12/2025
INF10.2-USE01	Local PKI framework	01/01/2021	31/12/2025
INF10.2-USE02	Continuous PKI audit process has been set up	01/01/2021	31/12/2025
INF10.2-USE03	Adapt systems to use PKI	01/01/2021	31/12/2025
INF10.2-USE04	Implement local PKI	01/01/2021	31/12/2025
INF10.2-USE05	Training	01/01/2021	31/12/2025
INF10.2-USE06	Implement cyber monitoring and control	01/01/2021	31/12/2025
INF10.2-MET01	Local PKI framework	01/01/2021	31/12/2025
INF10.2-MET02	Continuous PKI audit process has been set up	01/01/2021	31/12/2025
INF10.2-MET03	Adapt systems to use PKI	01/01/2021	31/12/2025
INF10.2-MET04	Implement local PKI	01/01/2021	31/12/2025
INF10.2-MET05	Training	01/01/2021	31/12/2025
INF10.2-MET06	Implement cyber monitoring and control	01/01/2021	31/12/2025
INF10.2-NM01	Local PKI framework	01/01/2021	31/12/2025
INF10.2-NM02	Continuous PKI audit process has been set up	01/01/2021	31/12/2025
INF10.2-NM03	Adapt systems to use PKI	01/01/2021	31/12/2025
INF10.2-NM04	Implement local PKI	01/01/2021	31/12/2025
INF10.2-NM05	Training	01/01/2021	31/12/2025
INF10.2-NM06	Implement cyber monitoring and control	01/01/2021	31/12/2025

Description of finalised and deleted SLoAs is available on the eATM Portal @ https://www.eatmportal.eu/working/depl/essip_objectives

Expected Performance Benefits

Safety:	-
Capacity:	-
Operational Efficiency:	-
Cost Efficiency:	-
Environment:	-
Security:	-

Detailed SLoA Descriptions

INF10.2-ASP01	Local PKI framework	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	ANS Providers		
Description & purpose:	<p>SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI.</p> <p>Use of EACP policies and procedures for authorising and mandating local organisation to use EACP certificates and services.</p> <p>In case own PKI is used, interacting with the Common PKI, define local policies and procedures for authorising and mandating local organisation to do certificate management in compliance with EACP policies</p>		
Supporting material(s):	<p>SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021</p> <p>Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme</p>		

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Finalisation criteria:	1 - PKI framework is completed		
INF10.2-ASP02	Continuous PKI audit process has been set up	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	ANS Providers		
Description & purpose:	<p>SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI.</p> <p>Implement audit programmes ensuring continuous compliance with EACP policies and standards.</p> <p>In case own PKI is used, interacting with the Common PKI, implement audit programmes ensuring continuous compliance with common (EACP) and local policies and standards.</p>		
Supporting material(s):	<p>SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021</p> <p>Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme</p>		
Finalisation criteria:	1 - PKI has been audited		
INF10.2-ASP03	Adapt systems to use PKI	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	ANS Providers		
Description & purpose:	<p>SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI.</p> <p>Adapt the systems (equipment and procedures) to use EACP solution.</p> <p>In case own PKI is used, interacting with the Common PKI, adapt systems (equipment and procedures) to use local certificates and EACP services.</p>		
Supporting material(s):	<p>SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021</p> <p>Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme</p>		
Finalisation criteria:	1 - System using PKI has been adapted		
INF10.2-ASP04	Implement local PKI	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	ANS Providers		
Description & purpose:	<p>ONLY In case own PKI is used, interacting with the Common PKI, implement its own local PKI while benefiting from the interoperability with other PKIs by using the EACP services.</p>		
Supporting material(s):	<p>SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021</p> <p>Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme</p>		
Finalisation criteria:	1 - System(s) is (are) upgraded		
INF10.2-ASP05	Training	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	ANS Providers		
Description & purpose:	<p>SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI.</p> <p>Training of technical personal is completed.</p>		
Supporting material(s):	<p>SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021</p> <p>Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme</p>		
Finalisation criteria:	1 - Staff has been certified		
INF10.2-ASP06	Implement cyber monitoring and control	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	ANS Providers		
Description & purpose:	<p>SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI.</p> <p>Implement monitoring and control to protect the IT systems against cyber-attacks</p>		
Supporting material(s):	<p>SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021</p> <p>Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme</p>		
Finalisation criteria:	1 - Cyber monitoring and control systems implemented.		
INF10.2-APO01	Local PKI framework	From:	By:

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		Applicability Area 1: 01/01/2021	Applicability Area 1: 31/12/2025
Action by:	Airport Operators		
Description & purpose:	<p>SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI.</p> <p>Use of EACP policies and procedures for authorising and mandating local organisation to use EACP certificates and services.</p> <p>In case own PKI is used, interacting with the Common PKI, define local policies and procedures for authorising and mandating local organisation to do certificate management in compliance with EACP policies</p>		
Supporting material(s):	<p>SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021</p> <p>Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme</p>		
Finalisation criteria:	1 - PKI framework is completed		
INF10.2-APO02	Continuous PKI audit process has been set up	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	Airport Operators		
Description & purpose:	<p>SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI.</p> <p>Implement audit programmes ensuring continuous compliance with EACP policies and standards.</p> <p>In case own PKI is used, interacting with the Common PKI, implement audit programmes ensuring continuous compliance with common (EACP) and local policies and standards.</p>		
Supporting material(s):	<p>SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021</p> <p>Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme</p>		
Finalisation criteria:	1 - PKI has been audited		
INF10.2-APO03	Adapt systems to use PKI	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	Airport Operators		
Description & purpose:	<p>SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI.</p> <p>Adapt the systems (equipment and procedures) to use EACP solution.</p> <p>In case own PKI is used, interacting with the Common PKI, adapt systems (equipment and procedures) to use local certificates and EACP services.</p>		
Supporting material(s):	<p>SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021</p> <p>Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme</p>		
Finalisation criteria:	1 - System using PKI has been adapted		
INF10.2-APO04	Implement local PKI	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	Airport Operators		
Description & purpose:	<p>ONLY In case own PKI is used, interacting with the Common PKI, implement its own local PKI while benefiting from the interoperability with other PKIs by using the EACP services.</p>		
Supporting material(s):	<p>SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021</p> <p>Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme</p>		
Finalisation criteria:	1 - System(s) is (are) upgraded		
INF10.2-APO05	Training	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	Airport Operators		
Description & purpose:	<p>SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI.</p> <p>Training of technical personal is completed.</p>		
Supporting material(s):	<p>SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021</p> <p>Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme</p>		
Finalisation criteria:	1 - Staff has been certified		

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INF10.2-APO06	Implement cyber monitoring and control	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	Airport Operators		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Implement monitoring and control to protect the IT systems against cyber-attacks		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - Cyber monitoring and control systems implemented.		
INF10.2-USE01	Local PKI framework	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	Airspace Users		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Use of EACP policies and procedures for authorising and mandating local organisation to use EACP certificates and services. In case own PKI is used, interacting with the Common PKI, define local policies and procedures for authorising and mandating local organisation to do certificate management in compliance with EACP policies		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - PKI framework is completed		
INF10.2-USE02	Continuous PKI audit process has been set up	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	Airspace Users		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Implement audit programmes ensuring continuous compliance with EACP policies and standards. In case own PKI is used, interacting with the Common PKI, implement audit programmes ensuring continuous compliance with common (EACP) and local policies and standards.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - PKI has been audited		
INF10.2-USE03	Adapt systems to use PKI	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	Airspace Users		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Adapt the systems (equipment and procedures) to use EACP solution. In case own PKI is used, interacting with the Common PKI, adapt systems (equipment and procedures) to use local certificates and EACP services.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - System using PKI has been adapted		
INF10.2-USE04	Implement local PKI	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	Airspace Users		
Description & purpose:	ONLY In case own PKI is used, interacting with the Common PKI, implement its own local PKI while benefiting from the interoperability with other PKIs by using the EACP services.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		

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Finalisation criteria:	1 - System(s) is (are) upgraded		
INF10.2-USE05	Training	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	Airspace Users		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Training of technical personal is completed.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - Staff has been certified		
INF10.2-USE06	Implement cyber monitoring and control	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	Airspace Users		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Implement monitoring and control to protect the IT systems against cyber-attacks		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - Cyber monitoring and control systems implemented.		
INF10.2-MET01	Local PKI framework	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	MET Providers		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Use of EACP policies and procedures for authorising and mandating local organisation to use EACP certificates and services. In case own PKI is used, interacting with the Common PKI, define local policies and procedures for authorising and mandating local organisation to do certificate management in compliance with EACP policies		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - PKI framework is completed		
INF10.2-MET02	Continuous PKI audit process has been set up	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	MET Providers		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Implement audit programmes ensuring continuous compliance with EACP policies and standards. In case own PKI is used, interacting with the Common PKI, implement audit programmes ensuring continuous compliance with common (EACP) and local policies and standards.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - PKI has been audited		
INF10.2-MET03	Adapt systems to use PKI	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	MET Providers		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Adapt the systems (equipment and procedures) to use EACP solution. In case own PKI is used, interacting with the Common PKI, adapt systems (equipment and procedures) to use local certificates and EACP services.		

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Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - System using PKI has been adapted		
INF10.2-MET04	Implement local PKI	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	MET Providers		
Description & purpose:	ONLY In case own PKI is used, interacting with the Common PKI, implement its own local PKI while benefiting from the interoperability with other PKIs by using the EACP services.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - System(s) is (are) upgraded		
INF10.2-MET05	Training	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	MET Providers		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Training of technical personal is completed.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - Staff has been certified		
INF10.2-MET06	Implement cyber monitoring and control	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	MET Providers		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Implement monitoring and control to protect the IT systems against cyber-attacks		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - Cyber monitoring and control systems implemented.		
INF10.2-NM01	Local PKI framework	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	NM		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Use of EACP policies and procedures for authorising and mandating local organisation to use EACP certificates and services. In case own PKI is used, interacting with the Common PKI, define local policies and procedures for authorising and mandating local organisation to do certificate management in compliance with EACP policies		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - PKI framework is completed		
INF10.2-NM02	Continuous PKI audit process has been set up	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	NM		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Implement audit programmes ensuring continuous compliance with EACP policies and standards. In case own PKI is used, interacting with the Common PKI, implement audit programmes ensuring continuous compliance with common (EACP) and local policies and standards.		

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Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - PKI has been audited		
INF10.2-NM03	Adapt systems to use PKI	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	NM		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Adapt the systems (equipment and procedures) to use EACP solution. In case own PKI is used, interacting with the Common PKI, adapt systems (equipment and procedures) to use local certificates and EACP services.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - System using PKI has been adapted		
INF10.2-NM04	Implement local PKI	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	NM		
Description & purpose:	ONLY In case own PKI is used, interacting with the Common PKI, implement its own local PKI while benefiting from the interoperability with other PKIs by using the EACP services.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - System(s) is (are) upgraded		
INF10.2-NM05	Training	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	NM		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Training of technical personal is completed.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - Staff has been certified		
INF10.2-NM06	Implement cyber monitoring and control	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	NM		
Description & purpose:	SLoA relevant for BOTH implementation options, using common PKI/EACP or own PKI. Implement monitoring and control to protect the IT systems against cyber-attacks		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - Cyber monitoring and control systems implemented.		

