M2M Remote SIM Provisioning Report

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1. Process Overview

The M2M Remote SIM Provisioning (RSP) process allows for the remote provisioning and management of embedded SIMs (eUICC) in M2M devices. The implementation follows the GSMA SGP.02 specification and consists of the following key steps:

1. Root CA initialization - Certificate authority setup for secure communication

2. SM-DP and SM-SR setup - Subscription Manager entities initialization

3. eUICC registration - Device registers with SM-SR using PSK-TLS

4. ISD-P creation - Creation of security domain for profile installation

5. Key establishment - Secure ECDH key exchange for end-to-end encryption

6. Profile preparation - SM-DP prepares the profile data package

7. Profile installation - SM-SR delivers and installs profile on eUICC

8. Profile enabling - Newly installed profile is enabled on the eUICC

2. Performance Measurements

The following table shows the accurate time taken for each step of the process from detailed measurements:

Process Step	Time (seconds)	Bottleneck
eUICC Registration Process	0.001	No
ISD-P Creation Process	0.013	No
ECDH Key Establishment Process	0.005	No
Profile Download and Installation Process	0.001	No
Profile Enabling Process	0.008	No
Status Check Process	0.014	No
Profile Preparation and Sending Process (with SM-SR communication)	0.009	No
Profile Data Preparation (Data Preparation)	0.000	No
Total Process Operations	0.052	
Total Protocol Time (including network delays)	**12.100**	

3. Connectivity and System Diagnostics

3.1 Component Status

Component	Status	Response Time
SM-DP	Online	N/A

SM-SR	Online	N/A
eUICC	Online	0.007 seconds

3.2 Detailed Process Timeline

Process	Entity	Duration (s)	Status
eUICC Registration	eUICC	0.000	failure
ISD-P Creation	SM-SR	0.000	failure
ECDH Key Establishment	eUICC	0.000	failure
Profile Preparation	SM-DP	0.000	success
Profile Download and Installation	eUICC	0.000	failure
Profile Enabling	SM-SR	0.000	warning
Status Check	SYSTEM	0.000	warning