

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 time taken for each step of the process:

Process Step	Time (seconds)	Bottleneck
Registration	0.000	No
ISD-P Creation	0.000	No
Key Establishment	0.000	No
Profile Preparation	0.000	No
Profile Installation	0.000	No
Profile Enabling	0.000	No
Total Process Time	45.288	

2.1 Traditional Bottleneck Analysis

No significant bottlenecks were identified in the process using percentage-based analysis.

3. Connectivity and System Diagnostics

3.1 Component Status

Component	Status	Response Time
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SM-DP	Online	0.010 seconds
SM-SR	Online	0.011 seconds
eUICC	Online	0.003 seconds

3.2 Detailed Process Timeline

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