



SGP.24 eSIM Application Note

SM-DP+ behaviour on version and extensibility interoperability
07 July 2020



SGP.24 V2.2 eSIM Application Note

SM-DP+ behaviour on version and extensibility interoperability

Overview

The GSMA eSIM Team has been made aware of issues on version interoperability of eSIM products. A bulletin explaining these issues was reviewed by eSIMWG4 on 11th March 2020. The purpose of this Application Note is to provide guidance to avoid or resolve these issues.

Details of Issues

The following issues have been observed:

- **Issue 1:** Some SM-DP+ are rejecting eUICCs that report a higher version of SGP.22 than the SM-DP+. For example: a v2.1 or v2.2 SM-DP+ is rejecting a 2.2.1 or 2.2.2 eUICC.
- **Correct behavior:** The correct behavior is that, irrespective of the SM-DP+ Version (2.x onwards), it should accept any eUICC versions (2.x onwards).
- **Issue 2:** Some SM-DP+ are rejecting the Device or eUICC capabilities' ASN.1 payload if they contain entries that the SM-DP+ does not know.
- **Correct behavior:** The correct behavior of the SM-DP+ is to ignore additional entries it does not recognise, and not reject the ASN.1 payload, specified in section 2.8 of SGP.22 v2.2¹.

Compliance Considerations

The following compliance considerations apply to the SM-DP+

- SGP.22 v2.x specifications are designed to be interoperable in between different minor/revision versions. Therefore an SM-DP+ that is compliant to any minor version of SGP.22 v2.x shall accept connection requests from the eUICCs with the same major version but different minor/revision versions.
- An SM-DP+ that is compliant to SGP.22 v2.x shall accept ASN.1 payloads containing additional fields that the SM-DP+ does not understand, as defined in section 2.8 of SGP.22 v2.2.

¹ This means that decoders SHALL be able to handle additional values with unspecified tags, either by processing them if they know their value content, or ignoring them silently (without reporting an error) if they do not know them.



Resolution of Issues

The following tests need to be passed by the SM-DP+(s) or by SM-DP+ that have already declared compliance to GSMA in order to prove that they are compliant to the expected behaviors defined in this application note:

Test from SGP.23 v1.7	Related Issue
<p>4.3.14.2.1. TC_SM-DP+_ES9+.AuthenticateClientNIST</p> <ul style="list-style-type: none">• Test Sequence #19 Nominal with extended eUICCInfo• Test Sequence #20 Nominal with extended DeviceInfo	SM-DP+ acceptance of ASN.1 payloads containing additional fields
<p>4.3.12.2.1 TC_SM-DP+_ES9+.InitiateAuthenticationNIST</p> <ul style="list-style-type: none">• Test Sequence #07 Nominal: eUICC v2.2.1• Test Sequence #08 Nominal: eUICC v2.2.2	SM-DP+ acceptance of different minor/revision versions

After passing these tests, the SM-DP+ vendor needs to submit a revised SGP.24 declaration to GSMA indicating that these tests have been passed successfully.

For explicit details on how to perform the (re)testing, consult SGP.24.