

DCC Guidance Note

SMETS1 (Secure) DCC Retry and Timeout Configuration – UIT and Production



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1.1 DCC Retry and Timeout Configuration

This Guidance Note provides the current settings for DCC Retry and Timeout configuration in the UIT and Production environments for the Secure SMETS1 Service Provider.

This information should be read in conjunction with the DCC Guidance Note for Use of DUIS Retry and Timeout Guidance, which contains details of how this configuration is used.

1.2 SRV Specific Configuration

To understand how retries and timeouts are going to work for the Secure S1SP, we set out, at a high level how DUIS commands work in the Secure S1SP.

DUIS commands sent to the Secure S1SP are received by the S1SP and if the command is a Critical Command, a separate call is made to the DCO for a DCO signature to accompany the command being sent to the end device. Next, the S1SP checks the signatures of the command. If the signatures are not present in the local cache a call is made to the SMKI repository to obtain those security details. Once the security credentials have been verified, the S1SP works out, based on the DUIS command submitted, which calls to the Secure API are needed to satisfy the original DUIS request as there is not always a one-to-one mapping between the DUIS commands and the Secure API. Also, where a user wishes to receive a large amount of data, these requests may be further split into requests to the API for smaller amounts of data. The Secure S1SP will then send these commands to the Secure CSP and the end device via the comms hub.

However, it is worth noting that the Secure S1SP has only implemented retry and timeout behaviour for certain stages of this process.

When requesting a DCO signature, the call to the DCO is repeated 3 times with a 30 second gap between each subsequent attempt. If the request is still not satisfied the S1SP will generate an 'S1CE20' S1SP alert.

Similarly, when the S1SP requests security details from the SMKI repository, the request is repeated 3 times before finally timing out. In this case, a 'S1CE2004' S1SP alert is generated.

The S1SP follows a similar pattern when submitting the API calls to a Secure serviced Device. The call to the Secure API is submitted and if no response received after 10 seconds another call is submitted. If after 20 seconds there is no response, then a final call is submitted. If after 30 seconds no response is received to the API call, then an 'S1CE2004' S1SP alert is generated.

Once a successful call to the Secure API is made, the S1SP checks the current state of the device. If the device is currently executing a 6.23 or 11.3 then the S1SP will generate an 'S1CE20' S1SP Alert. An 'S1CE20' S1SP alert is also generated when the device rejects the command when it is too busy.

Once these checks have passed successfully, the Secure CSP implements a number of retries to deliver the command to the device, and to return a response to the S1SP within a 48-hour period. Only at the end of this 48 hours period will an 'S1CE20' S1SP alert be

generated. Note that the DSP may have already timed-out and therefore this alert may well be discarded by the DSP.

Once a response from the device is available, the S1SP is notified and attempts to retrieve the response from the Secure API. The S1SP system will try 3 times at 10, 20 and 30 second intervals before timing out and generating an 'S1CE2004' S1SP alert.

Presented below are the expected time for each SRV to complete in 95% of all cases. **These are not timeout values.**

In some cases, each DUIS request is chunked into month-long requests to the Secure API. The timing for the return of 1 month's worth of data is shown and indicated in the Notes column.

SRV	Device Type	Retry Interval	Expected Time to Complete	Retries	Notes
1.1.1	ESME	N/A	915	0	
1.1.1	GSME	N/A	4395	0	
1.2.1	ESME	N/A	535	0	
1.2.1	GSME	N/A	2275	0	
1.5	All (Excl. GSME)	N/A	915	0	
1.5	GSME	N/A	4395	0	
1.6	All (Excl. GSME)	N/A	915	0	
1.6	GSME	N/A	4395	0	
2.1	All (Excl. GSME)	N/A	3910	0	
2.1	GSME	N/A	10870	0	
2.2	ALL(Excl. GSME)	N/A	445	0	
2.2	GSME	N/A	2185	0	
2.3	ESME	N/A	915	0	

SRV	Device Type	Retry Interval	Expected Time to Complete	Retries	Notes
2.3	GSME	N/A	4395	0	
2.5	ESME	N/A	535	0	
2.5	GSME	N/A	2275	0	
3.2	ESME	N/A	535	0	
3.2	GSME	N/A	2275	0	
3.3	ESME	N/A	535	0	
3.3	GSME	N/A	2275	0	
4.1.1	ESME	N/A	445	0	
4.1.1	GSME	N/A	2185	0	
4.1.2	ESME	N/A	445	0	
4.1.2	GSME	N/A	2185	0	
4.1.3	ESME	N/A	445	0	
4.1.4	GSME	N/A	2185	0	
4.2	ESME	N/A	445	0	
4.3	ESME	N/A	445	0	
4.3	GSME	N/A	2185	0	
4.4.2	ESME	N/A	445	0	
4.4.2	GSME	N/A	2185	0	
4.4.3	ESME	N/A	445	0	

SRV	Device Type	Retry Interval	Expected Time to Complete	Retries	Notes
4.4.3	GSME	N/A	2185	0	
4.4.4	ESME	N/A	825	0	
4.4.4	GSME	N/A	4305	0	
4.4.5	ESME	N/A	445	0	
4.4.5	GSME	N/A	2185	0	
4.6.1	ESME	N/A	445	0	
4.6.1	GSME	N/A	2185	0	
4.8.1	ESME	N/A	3385	0	
4.8.1	GSME	N/A	27685	0	
4.8.2	ESME	N/A	445	0	
4.8.3	ESME	N/A	825	0	
4.10	ESME	N/A	1205	0	
4.10	GSME	N/A	2185	0	
4.11.1	ESME	N/A	445	0	
4.11.1	GSME	N/A	2185	0	
4.13	ESME	N/A	825	0	
4.13	GSME	N/A	4305	0	
4.15	ESME	N/A	1205	0	
4.16	ESME	N/A	445	0	

SRV	Device Type	Retry Interval	Expected Time to Complete	Retries	Notes
4.18	ESME	N/A	445	0	
4.18	GSME	N/A	2185	0	
6.2.1	ESME	N/A	445	0	
6.2.3	ESME	N/A	445	0	
6.2.3	GSME	N/A	2185	0	
6.2.4	ESME	N/A	445	0	
6.2.4	GSME	N/A	4305	0	
6.2.5	ESME	N/A	445	0	
6.2.8	GSME	N/A	4305	0	
6.2.9	ESME	N/A	445	0	
6.2.9	GSME	N/A	2185	0	
6.4.1	ESME	N/A	1295	0	
6.4.2	All	N/A	535	0	
6.5	ESME	N/A	3910	0	
6.6	GSME	N/A	2275	0	
6.7	GSME	N/A	6515	0	
6.8	ESME	N/A	535	0	
6.8	GSME	N/A	2275	0	
6.11	ESME	N/A	915	0	

SRV	Device Type	Retry Interval	Expected Time to Complete	Retries	Notes
6.11	GSME	N/A	4395	0	
6.12	All	N/A	915	0	
6.13	ESME	N/A	445	0	
6.13	GSME	N/A	2185	0	
6.15.1	ALL	N/A	65	0	
6.21	ALL	N/A	65	0	
6.23	ALL	N/A	65	0	
6.24.1	All	N/A	65	0	
6.25	ESME	N/A	915	0	
7.1	ESME	N/A	915	0	
7.2	ESME	N/A	535	0	
7.2	GSME	N/A	2275	0	
7.3	ESME	N/A	535	0	
7.3	GSME	N/A	2275	0	
7.4	ESME	N/A	445	0	
7.4	GSME	N/A	2185	0	

SRV	Device Type	Retry Interval	Expected Time to Complete	Retries	Notes
8.1.1	ESME	N/A	535	0	
8.1.1	GSME	N/A	2275	0	
8.7.1	ESME	N/A	65	0	
8.7.1	GSME	N/A	65	0	
8.7.2	ESME	N/A	65	0	
8.7.2	GSME	N/A	65	0	
8.8.1	ESME	N/A	65	0	
8.8.1	GSME	N/A	65	0	
8.8.2	ESME	N/A	65	0	
8.8.2	GSME	N/A	65	0	
8.9	ESME	N/A	445	0	
8.9	GSME	N/A	2185	0	
8.11	CHF	N/A	1345	0	Note that this is the expected time for delivery and a 15 minute join period.
11.2	ALL	N/A	205	0	
11.2	GSME	N/A	205	0	
11.3	All	N/A	259200		

Appendix –Document Control

Revision History

Revision Date	Summary of Changes	Version Number
12/05/2020	First version for combined SMETS2 and SMETS1 documentation release. Aligned to previously published document – General guidance on SMETS1 DCC Retry and Timeouts for Service Request Processing-v1.5 and for the Secure S1SP	1.0