

SEC Section T provisions concern:

- SEC Parties
- Testing Participants
- Data and Communications Company (DCC)
- SEC Panel
- Registration Data Providers (RDPs)
- Secretary of State (SoS)

What Does Section T Cover?

SEC Section T, sets out the methods and approaches the DCC is to follow during the Testing during Transition phase. This phase of testing ensures that each system correctly interoperates with each other, the DCC Systems correctly function with User Systems and that Communications Hubs interoperate correctly with each other and the DCC Systems.

Device Selection Methodology

Wherever possible, the DCC must undertake tests using actual Devices. The DCC are required to develop a Device Selection Methodology to be used by the DCC for the purpose of selecting Devices to be used during **Systems Integration Testing, Interface Testing and User Entry Process Tests**. In developing the methodology the DCC must consult with Parties and Meter Manufacturers, and the methodology exists to ensure that the DCC has demonstrated successful testing against an appropriate amount of devices.

The methodology is published on the DCC website. It informs Parties of the selection Criteria for Devices and an explanation of the level of assurance the DCC needs regarding the achievement of the Testing Objectives. If the DCC is unable to find Devices that meet all the necessary criteria set out in **Section T1.4**, they are able to relax the requirements in accordance with the Device Selection Methodology.

Methodology Compliance

The DCC will publish its decision on those Device Models selected to take through to testing on the DCC website. The DCC must notify the Secretary of State, the Authority and the person which proposed any Device Models which were not selected and the details of these devices shall not be published.

Systems Integration Testing (SIT)

During SIT the DCC will test their integrated solution, aiming to prove that each system interoperates correctly with each other and the systems of Registration Data Providers.

The SIT Objective

The aim of SIT is to prove that its systems interoperate with the component parts of DCC systems, selected Communication Hubs and RDP Systems. It also aims to prove that the DCC is capable of complying with its obligations under SEC **Section E** (Registration Data), **Section G** (Security) and **Section H** (DCC Services), and that RDPs comply with Section E. The testing is undertaken on a region-by-region basis (**Northern** and **Central & Southern**) and by each RDP.

Systems Integration Testing (SIT) (continued)

The SIT Approach

The DCC will develop a **SIT Approach Document** that lays out the criteria needed to be met for the entry and exit of SIT, the timetable for testing, the frequency of tests. In relation to SIT the DCC must also appoint a **SIT auditor** to monitor the matters being tested and achieved. The SIT approach is reviewed and approved by the SEC Panel. The SEC Panel approval is subject to a 14 day referral window to the Authority (or SoS where so directed).

Testing in SIT

Once the SIT Approach Document is approved and has been published on the DCC website, the DCC must then give RDPs 3 months' notice that testing will commence. RDPs must meet the relevant Entry criteria before participating in SIT. Testing then follows the procedures laid out in the Approach Document and all **Testing Participants** undertake the necessary testing elements to facilitate achievement of the SIT Objective.

SIT Completion

SIT shall end on the date notified by the DCC in respect of each Region and RDP. The end of SIT shall not be notified until the DCC has produced a report setting out that the exit criteria have been met in respect of each Region and RDP System. The exit report must be accompanied by an independent auditor's report. Once directed to do so by the Panel, the DCC will circulate the reports to Parties, RDPs and Testing Participants.

Interface Testing (IT)

Interface Testing (IT) verifies that the DCC, the DCC Systems and Communications Hubs are interoperable with User Systems.

The IT Objective

The aim of IT is to demonstrate that the DCC systems can interoperate with User Systems as per the obligations of the SEC Section E, G and H. IT is undertaken on a Region-by-Region basis and cannot be completed in each Region until SIT has completed in that Region. The DCC is able to overlap SIT with the commencement of IT, by asking permission from the Secretary of State.

The IT Approach

The DCC will develop an **Interface Testing Approach Document** that lays out the criteria needed to be met for the entry and exit of IT, the timetable for testing, and the frequency of tests. In relation to IT the DCC must also demonstrate how it will facilitate Parties undertaking **User Entry Process Testing (UEPT)** and how they will allow those Parties to undertake UEPT and IT concurrently. The approach document for IT is reviewed and approved by the SEC Panel. The SEC Panel approval is subject to a 14 day referral window to the Authority (or SoS where so directed).

Testing in IT

Prior to the commencement of IT and in accordance with the Interface Testing Approach document, the DCC shall assess whether or not each Large Supplier Party and Network Party meets the entry criteria referred to in **Section T3.8(b)**. Each Large Supplier Party shall take reasonable steps to commence UEPT as soon as reasonably practicable. Testing then follows the procedures laid out in the Approach Document and all participants undertake the necessary testing elements to facilitate achievement of the IT Objective.

IT Completion

The DCC will apply to the Panel to determine whether the exit criteria have been met, and provide the Panel with a report evidencing how they believe they have met the criteria. Once the Panel has determined that the exit criteria have been met, this will be notified to the Secretary of State, the Authority and Parties. The exit criteria must include a minimum of two Large Supplier Parties and at least one Network Party completing UEPT.

End-to-End (E2E) Testing

End-to-End Testing allows Users to test their own systems and chosen devices with the DCC Systems. Participants will also be able to conduct interoperability testing (SEC Section F4), providing Manufacturers with the opportunity to test devices in tandem. It should also be noted that the DCC can recommend to Panel that E2E should commence during the period of IT, otherwise E2E will begin on the completion of IT.

E2E Approach

The **End-to-End Testing Approach Document** sets out which User Entry Process Tests and Device and User System Tests are to be provided. The DCC will also make available **Test Communication Hubs** at the first instance. Once concluded upon the Approach Document is approved by the SEC Panel. The SEC Panel approval is subject to a 14 day referral window to the Authority (or SoS where so directed).

E2E Testing

Once the Approach Document is published on the DCC website, Testing Participants must receive 6 months' notice of E2E commencement. The DCC must then provide the testing capabilities as set out in the Approach Document. If the DCC may provide Testing Services to a person that is not a Party in accordance with any provisions of the Approach Document.

E2E Completion

End-to-End Testing is due to cease on the date 12 months after it commences. On the ninth month of End-to-End Testing the DCC will submit a recommendation to the Panel as to whether or not to extend the period of End-to-End Testing by 6 months. Once a decision has been made the Panel will inform Parties of its decision.

SMKI and Repository Testing (SRT)

SRT involves the systems of the DCC and its Service Providers and aims to prove certain elements of the SMKI solution. SRT is divided into two parts:

- The initial isolated testing of the SMKI Test Service and Test Repository against the DCC's integrated solution.
- The second occurs in conjunction with the Systems Integration Test phase.

Whilst no Parties are involved in SRT, two Large Suppliers must complete **SMKI & Repository Entry Process Testing (SREPT)** to prove that the DCC have completed this test stage.

SRT Objective

As well as demonstrating that the DCC and the DCC Systems interoperate with each other and with Systems of Parties, SRT aims to prove that the DCC is capable of complying with its obligations under **SEC Section L (SMKI & DCCKI)**.

Testing in SRT

The SRT will also have an **SRT Approach Document** as per the previous testing elements and this is approved by the Panel, however in this instance the Panel consult with the SMKI Policy Management Authority prior to deciding whether or not to approve the SRT Approach Document. The SEC Panel approval is subject to a 14 day referral window to the Authority (or SoS where so directed). Testing commences at the soonest possible instance and Large Suppliers shall, on request, update their Panel and the DCC on their progress through SREPT.

SRT Completion

Exit criteria for SRT includes a requirement that at least two Large Supplier Parties complete SREPT and become an **Authorised Subscriber** under the **Organisation Certificate Policy**, an Authorised Subscriber under the **Device Certificate Policy** and are eligible to access the SMKI Repository. The exit report is then provided by the DCC to the SEC Panel for determination of whether the exit criteria have been met.

Development of Enduring Test Documents

The following documents are developed by DCC:

- **The Common Test Scenarios Document**
- **The SMKI and Repository Test Scenarios Document**
- **Enduring Testing Approach Document**

The Common Test Scenarios Document will include test scenarios for testing the SSI and the DUIS and contain entry requirements for particular User Roles.

The Enduring Testing Approach Document is set out for participants who are eligible to undertake tests pursuant to the Testing Services. It also explains how, and in what circumstances, Testing Services would be provided. It will also highlight how the DCC will provide any services remotely, provide connections to the **Smart Metering Wide Area Network (SMWAN)**, how test certificates are made available and obligations with which the DCC and Testing Participants must comply in respect of the Testing Services.

Having consulted upon the documentation and sought views from Parties the documentation is submitted to the Secretary of State for approval.

Definition of Large Supplier

For the purpose of Section T5, a Supplier Party will be considered a Large Supplier if they meet the criteria for a Large Supplier at the date at which Section T5.28 was first designated into the Code (14th January 2015).

Testing Issues

For the purposes of the Testing phases set out within Section T, the General: Testing Issue Resolution Process (Sections H14.37 – H14.45) shall apply.

Throughout the testing stages, the DCC shall provide the Secretary of State with copies of the reports generated by the DCC on the Testing Issues raised throughout each testing stage.

The Ending of the Implication of Section T

Section T of the SEC, and this guidance, will be removed from the SEC once the last of the testing phases has finished:

- Interface Testing;
- End-to-End Testing; or
- SMKI and Repository Testing.

Disclaimer

These guides are intended to provide a simple overview of the SEC and any supporting or related arrangements and do not replace or supersede the SEC or these related arrangements in any way. The author does not accept any liability for error, omission or inconsistency with the SEC.

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