Comms Technically Feasible (CTF) Briefing Document

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Purpose of Document

This document is intended to provide Market Participants with understanding of:

- What Comms Technically Feasible (CTF) is
- How CTF is proven and how this information is advised to Supplier
- When remote reading will take place
- Ongoing CTF assessment
- Provide Market Participants with an understanding of how Suppliers will need to check CTF value before issuing any requests for Smart Data Services
- Information that Market Messages that CTF value will issue in
- When CTF value will be shared with Market Participants

What is CTF?

CTF (Communications Technically Feasible) is a check that ESB Networks will perform regularly on each meter installation to establish the reliability of communications from the smart meter to the head end system across the 2G telecommunications network.

CTF will be used by ESB Networks to determine the method for reading and managing the meter (remote or manual)

ESB Networks expects approx. > 95% population coverage for the advanced meter infrastructure.

ESB Networks expects coverage to fluctuate for a small number of meter locations due to a variety of reasons including but not limited to: local propagation issues, atmospheric conditions, tree coverage, radio access network failure, changes in network topology, communications interference sources, customer actions etc.

Initial CTF Assessment

Initial CTF Assessment determines the CTF at a site for the first time. This may be in the case of a new site or a legacy to smart meter exchange at an existing site. The CTF is a measure of ESB Networks' service offering to its suppliers and their customers at an MPRN point. The CTF value is an attribute of the site and not of the individual meter.

Using information from the scheduled data retrieval processing reports for a proving period of 30 days. The 30-day period is the duration that ESB Networks has factored into the functional design and associated technical specifications. The reporting capability of the SEM is assessed and assigned a value between 01 and 04.

Valid CTF Values

01 (Comms proving failed)
02 (Non Interval Service Standard)
03 (Interval Service Standard)
04 (Remote Re-Energisation Pre Payment standard of quality)

CTF Values:

CTF Value	Description	Indicative success rate*
01	Communications proving for the MPRN has failed – only manual reading is possible for this meter	0 – 4 days per month
02	The meter can be Remotely read but not reliably	5 – 10 days per month
03	The meter can be Remotely read regularly but not every day	11 – 24 days per month
04	The meter can be Remotely read every day with very good reliability	> 25 days per month

* Please note that the algorithm to calculate the CTF value has not been developed at this time. As with all such developments it will need to be tested and will need time to bed in.
* In Phase 2 we may expect additional codes to be required to cater for communications levels to support pre-payment services.

Reading of Smart Meters

Where communications cannot be established (CTF = 01) the meter registers will be manually read as is the current practice.

Where communications can be established (CTF 02,03,04) the meter will transmit its associated data packages each night, where possible. On occasions where the meter cannot be read, estimates will be provided. For MPRNs on MCC12, estimates provided to the Supplier will be replaced with actuals where possible when communications are re-established with the meter. For MPRNs on MCC16, estimates provided to the Supplier will not be replaced (as the meter reading order window will have closed once the estimate is generated and sent to the Supplier). Manual interval reading will not be provided by ESB Networks.

Enduring CTF Assessment

The CTF value at every MPRN with a smart meter will be re-evaluated daily by ESB Networks. The evaluation will take into account the meter communication success or failure record over the previous 30 days (rolling). The exact rules governing the CTF value calculation have yet to be finalised, but it is expected that the algorithm will ensure that daily/weekly fluctuations of CTF will not occur and that the CTF value remains relatively stable once initial assessment is complete. If the CTF value does move up or down the Supplier will be notified via the 114 market message.

ESB Networks will monitor communications coverage with our telecommunications supplier and work to improve coverage levels and associated system performance on a continuous basis. As a result of these activities, some MPRNs on low CTF values may improve over time. Supply companies will not be expected to notify ESB Networks when estimated readings are produced

Where the CTF value is changing from 01 to 02 / 03 / 04, the device will be updated as remotely read and the MPRN will be moved to a remotely read Meter Reading Unit (MRU). Where the CTF value is changing from 04 / 03 / 02 to 01, the device will be updated as manually read and the MPRN will be moved to a manually read MRU.

A CTF update will result in the issue of MM114 (the message status code will be “A” (Advice)) to the registered Supplier (or to the Old and New Supplier where a CoS is in progress) notifying them of the current CTF Value. The CTF Value will be available on Retail Extranet, Downloadable Files or Web Service.

- **Please Note**: Where a customer who is on MCC12 (Interval Data) and the CTF value is reduced to 01 or 02, actual HH readings cannot be guaranteed at CTF level 01 or 02, estimate HH readings will be provided where no actual readings can be collected. The onus is on the Supplier to issue request to change the MCC Code to MCC16. ESB Networks will not change the MCC of a customer unless instructed to do so by their Supply Company.

De-energised Sites

When a site with a Smart Meter is de-energised, the CTF value in Central Market Systems is frozen and remains visible on the Retail Extranet, Downloadable Files and Web Service.

Supplier requests for Smart Data Services Dependant of CTF Value

All market process (COS, COLE etc.) will complete based on the already agreed rules.

ESB Networks will reject requests from Suppliers for Smart Data Services that cannot be supported by the CTF level.

MM013 requesting Smart Data Services change will be rejected where the CTF at the MPRN does not support the request. For Interval Data Services CTF must be 03 or 04. Non-Interval Data Services CTF must be 01, 02, 03 or 04. The rejection will be sent via MM014R with reason code SCI (Smart Configuration Code Invalid).

MM016 requesting CoLE with Smart Data Services change will be rejected where the CTF at the MPRN does not support the request. For Interval Data Services then CTF must be 03 or 04. Non-Interval Data Services then CTF must be 01, 02, 03 or 04. The rejection will be sent via MM116R with reason code SCI (Smart Configuration Code Invalid)

MM017 with Smart Data Services change will be rejected where the CTF at the MPRN does not support the request. For Interval Data Services then CTF must be 03 or 04. Non-Interval Data Services then CTF must be 01, 02, 03 or 04. The rejection will be sent via MM117R with reason code SCI (Smart Configuration Code Invalid)

MM010 with Smart Data Services change will be rejected where the CTF at the MPRN does not support the request. For Interval Data Services then CTF must be 03 or 04. Non-Interval Data Services then CTF must be 01, 02, 03 or 04. The rejection will be sent via MM102R with reason code SCI (Smart Configuration Code Invalid)

MM010 for registration of a previously de-registered site requesting Smart Data Services change will be rejected where the CTF at the MPRN does not support the request. For Interval Data Services then CTF must be 03 or 04. Non-Interval Data Services then CTF must be 01, 02, 03 or 04. The rejection will be sent via MM101R with reason code SCI (Smart Configuration Code Invalid).

Additional Market Messages that CTF Value will issue on

CTF Value will also issue on the following Market Messages where comms has been proven.

- MM101 – New Connections Registration Acceptance
- MM102 – Change of Supply Registration Acceptance
- MM105 – Change of Supplier Confirmation
- MM101P – New Connections Provisional Acceptance (Registration of a previously de-registered site only)
- MM102P – Change of Supplier Provisional Acceptance

When will CTF Value be shared with Market Participants?

CTF values will be shared with market participants on release of V13 of the schema in Dec 2020. In addition to being provided to the current Supplier via the 114 Market Message, the CTF value for each MPRN with a Smart Meter will also be published on the Extranet and will be visible via the MPRN Lookup Web Service.

A downloadable file containing the CTF value for meters installed in 2019 and 2020 will be provided to Supply companies as part of the cutover to V13 of the schema.