

Public

Design Working Group

Meeting 14

15 January 2019
ELEXON



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- If you hear the alarm, please leave the building immediately.
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Agenda

Agenda item	Paper no.	Lead
1. Introduction, apologies and meeting objectives	Verbal	Justin Andrews
2. Ofgem SCR update	Verbal	Anna Stacey
3. DWG Review of Stage 2 Report on recommended TOM: <ul style="list-style-type: none"> Overview of the DWG recommended TOM (page 14) The TOM Services (pages 15-26) Detailed Service Requirements (Appendix A) 	Slides/ Section by section review	Kevin Spencer
4. DWG Review of Stage 2 Report on recommended TOM: <ul style="list-style-type: none"> Settlement Timetable (pages 28-40) 	Slides	Matt McKeon
5. DWG Review of Stage 2 Report on recommended TOM: <ul style="list-style-type: none"> RAID Log (pages 41-44) 	Slides	Mark De Souza-Wilson
6. Lunch		
7. DWG Review of Stage 2 Report on recommended TOM: <ul style="list-style-type: none"> Meter Data Requirements Industry Standing Data 	Report review	Kevin Spencer
8. Conceptual System Architecture – proposed revisions	Slides	Matt McKeon
9. Development of Transitional Approach <ul style="list-style-type: none"> Stage 2 Report (Appendix D) 	Slides and report review	Kevin Spencer
10. Other comments on the Report	Report review	Mark De Souza-Wilson
11. Consultation Questions	Slides	Kevin Spencer
12. Summary, actions and next steps	Verbal	Justin Andrews

Ofgem Update

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- Return to Electricity settlement (Electricity)

Settlement reform update

Publication date 16th July 2018
Information type Guidance
Policy area Electricity - retail markets

Settlement reform highlights

Target Operating Model (TOM): Since the last update, Ofgem approved the five skeleton Target Operating Model options developed by the Design Working Group for stakeholder consultation by Elexon. This concluded stage 1 of the Target Operating Model design work.

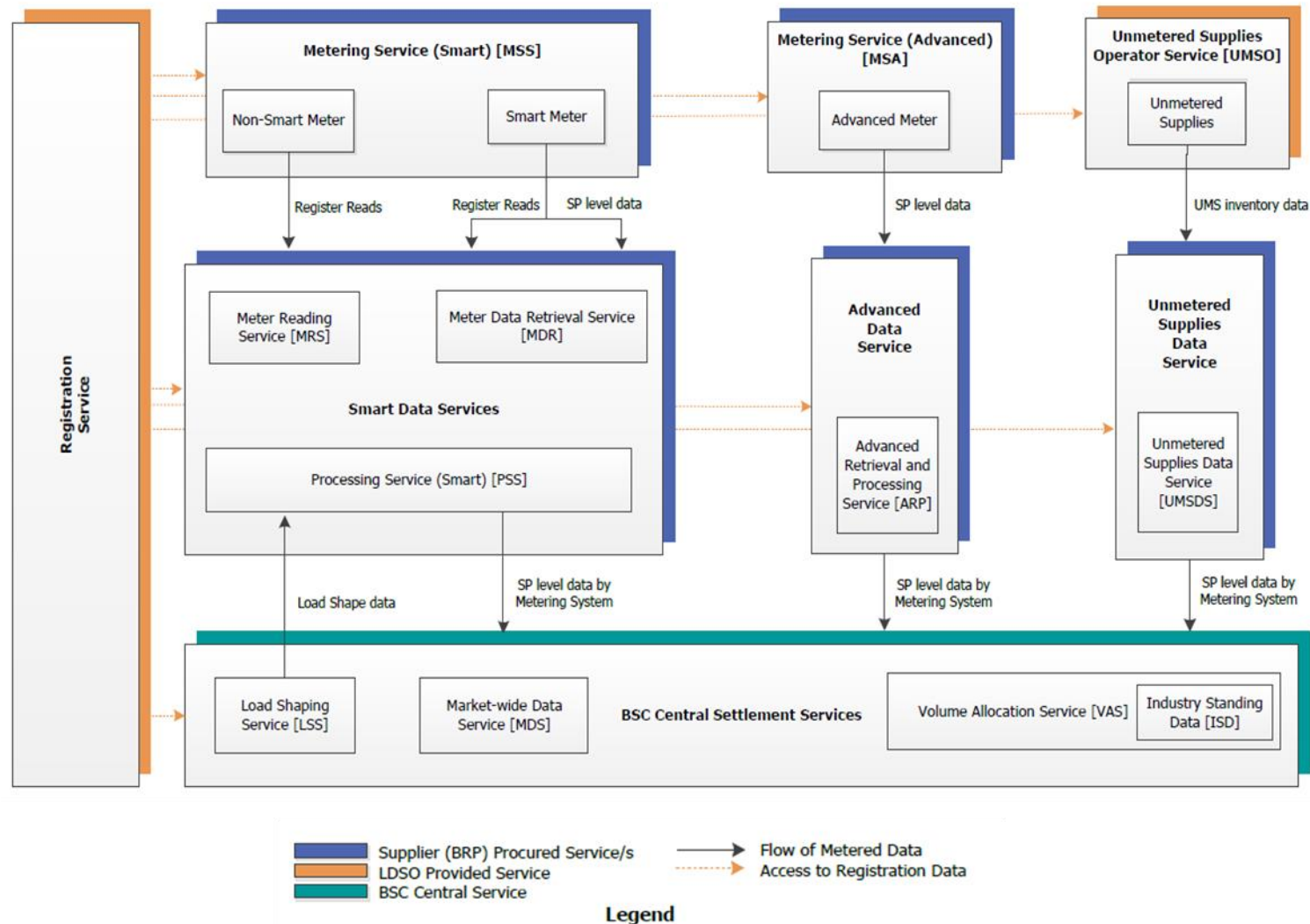
The design work now moves into stage 2, detailed design. This started with reviews by the Design Working Group and Design Advisory Board of the stakeholder responses to the skeleton Target Operating Model consultation. The reviews did not identify any additional Target Operating Model options required for consideration.

The Design Working Group has now commenced detailed design of the service requirements for the five skeleton Target Operating Model options, with a view to having a draft set of service requirements put together in late 2018.

Consumer Issues: We have published a consultation on access to half-hourly data for settlement, alongside a draft Data Protection Impact Assessment, a report on access to data arrangements, and 2 pieces of consumer research. We welcome

DWG Review of Stage 2 Report on recommended TOM

Page 14:



DWG Review of Stage 2 Report on recommended TOM

Pages 15 to 26 – The TOM Services

Market Segment/Service	Service Id	Service Name
Advanced Market Segment and Advanced Data Service	MSA	Metering Service (Advanced)
	ARP	Advanced Retrieval and Processing Service
Smart and non-smart Market Segments and Smart Data Services (SDS)	MDR	Meter Data Retrieval Service
	MRS	Meter Reading Service
	MSS	Metering Service (smart)
	PSS	Processing Service (smart)
Unmetered Supplies Market Segment and Unmetered Data Service	UMSDS	Unmetered Supplies Data Service
	UMSO	Unmetered Supplies Operator Service
BSC Central Settlement Services	LSS	Load Shaping Service
	MDS	Market-wide Data Service
	VAS	Volume Allocation Service

DWG Review of Stage 2 Report on recommended TOM

Detailed Service Requirements (Appendix A):

Processing_Service_Smartv0.8 - Microsoft Excel

Ref	Requirement Title	Category	Sub-Category	Requirement Description	Applicable To	MoSCoV Rating	Grouping	Req. Mapping	Requirement Type	Notes
1	Governance									
PSS1.1	Adherence to Industry Codes	Governance	Code Compliance	The PSS shall comply with all relevant Industry Codes and implement changes to the PSS required by Modifications to the Codes.	Processing Service (Smart)	Must have	Governance	Non-Functional	Non-Functional	Possibly need to be more explicitly about which C
2	General									
PSS2.1	PSS uses a qualified system	General	Service Design	The PSS must use Qualified systems and processes [as approved in accordance with [BSCPS37] in carrying out the collection of data from VAS Metering Equipment.	Processing Service (Smart)	Must have	Service Design	General	Non-Functional	
PSS2.2	PSS flexible to changes in Settlement Period Definition	General	Service Design	The PSS must be designed flexibly to accommodate changes in the definition of a Settlement Period.	Processing Service (Smart)	Must have	Service Design	General	Data Requirement	In case of 15 minute Settlement Period in the future
PSS2.3	PSS able to convert data from Vatt hours to kilo-Vatt hours	General	Service Design	The PSS must be able to convert SP level data from Vatt hours to kilo-Vatt Hours.	Processing Service (Smart)	Must have	Service Design	General	Data Requirement	Profile data log holds data in Vh.
PSS2.4	PSS processes consumption data in kWh and UTC	General	Service Design	The PSS must be able to process SP level data in Coordinated Universal Time (UTC) and in kilo-Vatt hours (kWh) to three decimal places.	Processing Service (Smart)	Must have	Service Design	General	Data Requirement	SP data is in Vh. PSS convert this to kWh.
PSS2.5	PSS Outputs consumption data in kWh	General	Service Design	The PSS must be able to output SP level consumption data in Coordinated Universal Time (UTC) and in kilo-Vatt hours (kWh) to three decimal places.	Processing Service (Smart)	Must have	Service Design	General	Data Requirement	Included UTC for network charging or for BRP (Sup
PSS2.7	PSS collects and notifies SP level data for Network Charging	General	Service Design	The PSS must have the capability to collect and record all Meter Period Value data for Reactive Power (with associated alarms), cumulative readings and maximum demand readings by Meter register that are required for the LDSO, and must use this capability to collect (and report to the BRP (Supplier) and LDSO) Meter Period Value data for Reactive Power for all those VAS MS for which it is responsible and/or for which the Meter Technical Details indicate that the Meter is configured to record such data.	Processing Service (Smart)	Could have	Service Design	General	Functional	It is assumed reactive power will not be needed to for this Market Segment. Kept due to potential TCI requirements?
PSS2.8	PSS collects and process data (other parties)	General	Service Design	The PSS must be capable of receiving, processing and notifying all required data accurately and within the timescales agreed by the BSC Panel, BRPs (Suppliers) and LDSOs.	Processing Service (Smart)	Must have	Service Design	General	Functional	
PSS2.9	PSS supports processed and unprocessed data	General	Service Design	The PSS must be capable of accommodating metered data (processed and unprocessed) and associated standing data for all VAS MPANs for which the PSS is registered for the retention periods specified.	Processing Service (Smart)	Must have	Service Design	General	Functional	
PSS2.10	PSS allows for growth in number of MPANs registered.	General	Service Design	The PSS must allow for growth in the number of MPANs that can be catered for by the Service.	Processing Service (Smart)	Must have	Service Design	General	Functional	
PSS2.11	PSS notify access to appropriate data to other parties	General	Service Design	The PSS must only notify BRPs (Supplier) with access to data relating to VAS Metering Systems against which the BRPs (Suppliers) are contracted with the PSS, and must ensure that LDSOs are not notified with data relating to VAS Metering Systems supplied by the distribution networks of other LDSOs.	Processing Service (Smart)	Could have	Service Design	Business Rule	Business Rule	not sure if LDSO will need this at meter level from t
PSS2.12	PSS stores Meter Reading schedules and Service Request details	General	Service Design	The PSS must be able to derive and store Meter Reading Schedules and Service request details for all Metering Systems for which it is responsible.	Processing Service (Smart)	Must have	Service Design	PSS1 and 2	Functional	
PSS2.11	PSS validates data for all meter points	General	Validation	The PSS must validate all data retrieved according to the validation rules set out within the BSC or BSC subsidiary documents and set from	Processing Service (Smart)	Must have	Operations	PSS4	Functional	

Ready | Version | Processing_Service_Smart | Service_Diagrams | Glossary | Mapping | 70% | 09:17 03/01/2019



**DWG Review of Stage 2
Report on recommended
TOM: Settlement
Timetable**

Matt McKeon

DWG Review of Stage 2 Report on recommended TOM

Settlement Timetable (Pages 28 to 32):

Run	Timing
Interim Information (II) Run	4 WD
Initial Settlement (SF) Run	5-7 WD (depending on DCC read capability)
Interim Reconciliation Run	33 WD
Final Reconciliation (RF) Run	4 months
Disputes Final (DF) Run	12 months or longer



**DWG Review of Stage 2
Report on recommended
TOM: RAID Log**

Mark De Souza-Wilson

DWG Review of Stage 2 Report on recommended TOM

Risks (Page 41):

No.	Risk	Notes	Mitigation in place
R01	That changes de-stabilise the existing Half Hourly (HH) Settlement.	The existing HH market of some 260k Metering Systems accounts for around 50% of the energy Settlement. Changes to the Settlement arrangements for smart Metering Systems should not disturb the established activity.	By defining a separate service for the existing HH market, the TOM design does not materially impact the existing arrangements for advanced Meters.
R02	That European legislation requires a move to 15-minute ('quarter-hour') Settlement.		The TOM design refers to 'Settlement Period' and not 'half hour' or '30 minutes'.
R03	That Ofgem's work on charging reform develops requirements, late in the DWG process, that affect the TOM design.		There is close contact between Ofgem's MHHS and charging reform teams. The TOM design has flexibility to support network charging in different ways, depending on the requirements.

DWG Review of Stage 2 Report on recommended TOM

Assumptions (Pages 41-43):

No.	Assumption	Notes	How/when to validate during Stage 2
A01	That Suppliers will remain the Registrants of Metering Systems.	If not the Supplier, the Registrant may be part of a bundled service provider of which the Supplier role is a part. A less likely possibility is that the Distribution Business becomes the Registrant.	By keeping a watching brief on Ofgem's review of the future market supply arrangements – however, this review will not conclude during Stage 2 timescales.
A02	That the communication networks (specifically the Data and Communications Company (DCC)) will be able to handle the amount of data that will be required for MHHS arrangements – either through its current system or by making changes to that system.	DCC will need to look at all the capacity considerations.	By confirming the assumptions behind the DCC's existing capacity, and thereby if/what additional capacity is required. ELEXON and Ofgem are currently discussing this with the DCC. The DCC will also provide an impact assessment during Stage 2, to support Ofgem's MHHS Business Case.
A03	That the DCC is able to meet its SLAs in terms of maintaining successful communication links with Meters.	Assumed that BEIS will ensure this under the DCC licence.	Cannot be validated during Stage 2 timescales.

DWG Review of Stage 2 Report on recommended TOM

Issues (Page 43):

No.	Issue	Notes	How to progress
I02	Related Meters	There are issues with losing identification of the related Metering System when transitioning Sites between HH and Non Half Hourly (NHH) Settlement.	By keeping a watching brief on the resolution of this issue under the Faster Switching SCR, where the registration system will need to hold Related Meter as a data item. The DWG also believes that this is not an issue once a smart Meter is installed.
I03	Identifying types of customers and metering at point of sale	There is an issue with identifying what type of metering and type of data can be accessed from customers at point of sale. E.g. legacy NHH, Smart HH/NHH.	By keeping a watching brief on the resolution of this issue under the Faster Switching SCR, where the proposal is that Meter Technical Details are moved to the Supplier Meter Registration Service (SMRS). The expectation is that SMRS will be notified when a smart Meter is installed (both SMETS1 and SMETS2). The DWG also notes that this is a point of sale, not a Settlement, issue. However, if there is a Settlement requirement for customer type to be recorded, it would be possible to repurpose another 'retired' data item such as Profile Class.

DWG Review of Stage 2 Report on recommended TOM

Dependencies (Page 44):

No.	Dependency	Notes	Status of dependency
D03	SCR Policy Decision: Data Access	The TOMs will need to reflect Ofgem's policy decision on access to HH data for Settlement purposes .	The TOM design is consistent with Ofgem's ' least-regrets ' steer. If the final policy decision differs from this steer, then the DWG may need to revisit the TOM design and timetable of work.
D04	SCR Policy Decision: Centralisation	The TOMs will need to reflect Ofgem's policy decision on Supplier Agent functions under market-wide Settlement reform .	The TOM design is consistent with Ofgem's ' least-regrets ' steer. If the final policy decision differs from this steer, then the DWG may need to revisit the TOM design and timetable of work.



DWG Review of Stage 2 Report on recommended TOM: Data Requirements

Kevin Spencer

Meter Data Requirements

Pages 33 to 35

MARKET-WIDE HALF HOURLY SETTLEMENT

Meter Data Requirements

The following are the Settlement data and validation data requirements for each Market Segment in the Target Operating Models (TOMs):

Meter Type	Measurement Quantity	Data Type (Settlement)	Data required (Settlement and Validation)	Number of Readings	Data Availability	DCC Service Request Ref.
SMETS2 and above	Active Import	SP Level Data	Active Import Profile data	48 per Settlement day	13 months	SRV4.8.1
			And Daily Consumption log	1 per Settlement days	731 days	SRV4.17
			OR Import Daily Read Log	1 per Settlement days	31 days	SRV4.6.1
SMETS2 and below	Active Export	SP Level Data	Active Export Profile data	48 per Settlement day	3 months	SRV4.8.3

Industry Standing Data Requirements

Pages 36 to 40:

The screenshot shows a Microsoft Word document titled 'DWG_MHHS_TOMv0.9_for_DWG_Review'. The document content is as follows:

Industry Standing Data Requirements

Market Participants current use [Market Domain Data \(MDD\)](#) as the source of standing data for electricity Settlement. Some tables and data items in MDD will not be required in the Target End State since they are only required for NHH Settlement. Some new tables and data items will be required. For the purposes of the TOM development the standing data has been referred to as Industry Standing Data (ISD) to recognise that this will be different to the current MDD. Implementation of MHHS should also consider new interfaces between the TOM Services and the Registration Service(s). The following requirements for ISD tables **have been agreed by the DWG** (required data items to be agreed for implementation):

- Must have** (no point having a solution without this)
- Should have** (if not delivered then a workaround must be in place)
- Could have** (nice to have, implementation dependent)
- Won't have** this time

ISD Requirement Id	Current MDD TABLES	Moscow	Comments
ISD1.1	Average Fraction of Yearly Consumption	Won't have	Not needed for HHS
ISD1.2	Average Fraction of Yearly Consumption Set	Won't have	Not needed for HHS
ISD1.3	BM Unit for Supplier in GSP Group	Must have	VAS works on BMUs
ISD1.4	Clock Interval	Could have	Could be repurposed for <u>ToU</u> scaling.

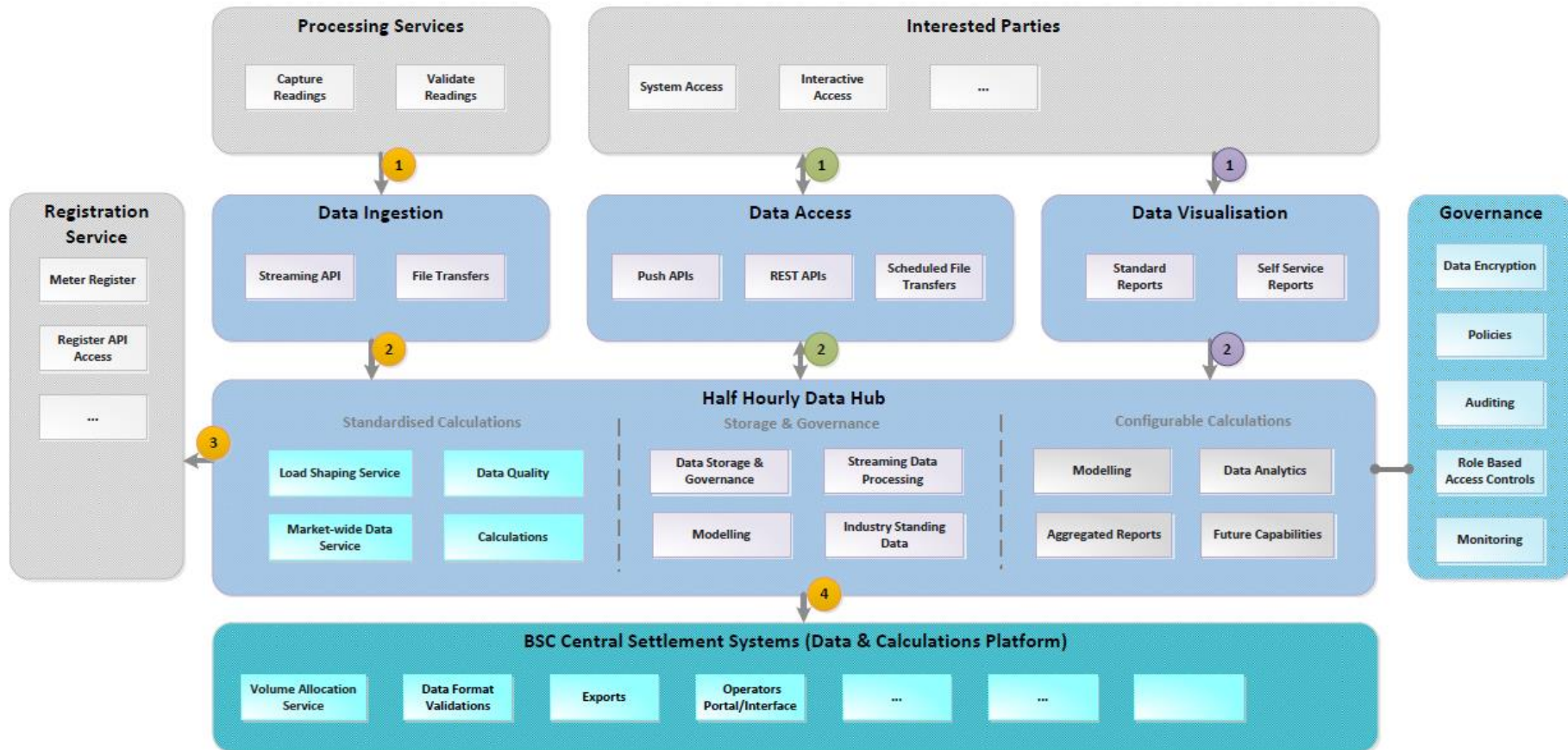
Page: 36 of 99 | Words: 27,638 | English (U.K.) | 09:36 03/01/2019



**Conceptual System
Architecture – proposed
revisions**

Matt McKeon

Conceptual System Architecture – proposed revisions



Legend:





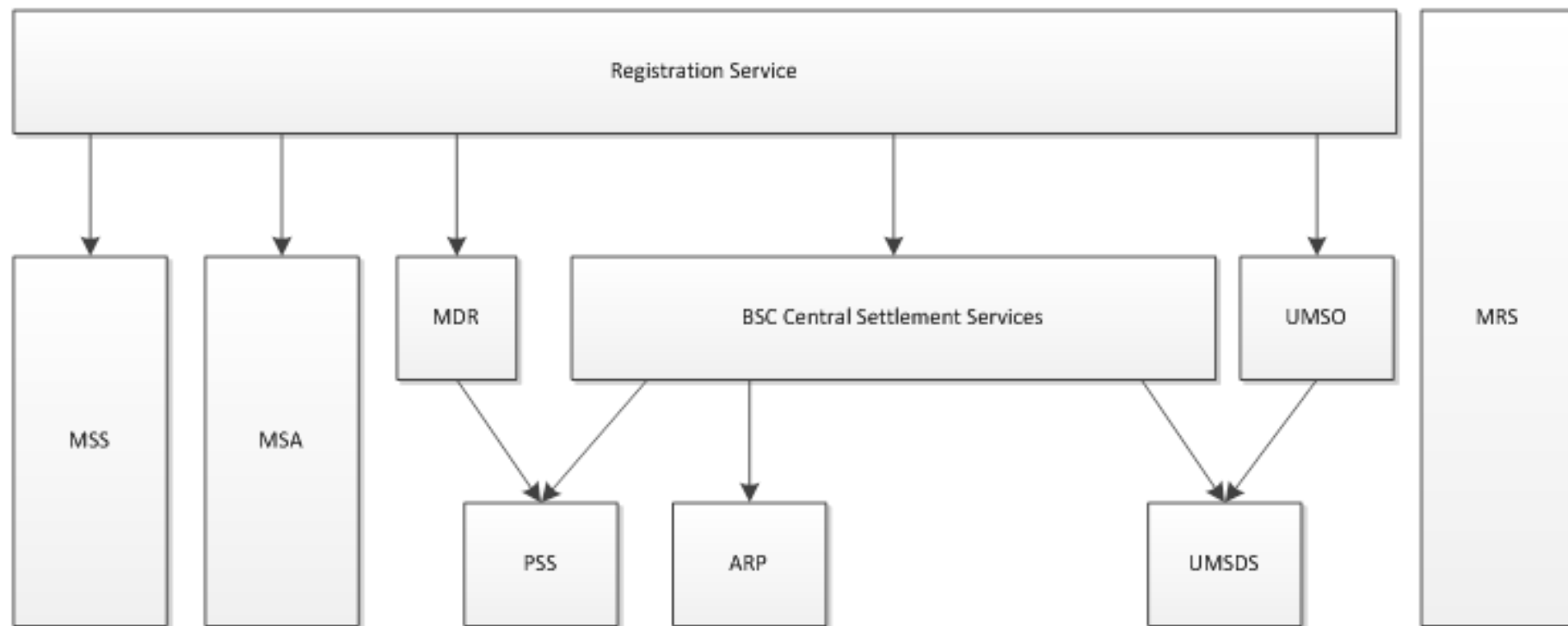
Development of Transitional Approach

Kevin Spencer

ELEXON

Development of Transitional Approach

Appendix D:






Other comments on the Report

Mark De Souza Wilson

Other comments

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Consultation Questions

Kevin Spencer

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Consultation Questions?

- No more than 10 questions?
 - Opinion on proposed TOM
 - Agree Rationale used by the DWG given 'Least Regrets' steer
 - Any Missing requirements
 - Opinion of the proposed Settlement timetable
 - Are Data requirements correct
 - Anything missing from RAID log
 - Comments on transitional approach
 - Are there any specific aspects of TOM design that would present a barrier to new market entrants, technologies or innovations
 - Any other comments

Summary, actions and next steps

Summary, actions and next steps

