Solution Design Advisory Group (SDAG)

BIS Conference Centre

26 February 2013

Agenda: SDAG #4
BIS Conference Centre
10:00 Tuesday 26th February 2013

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No	Time	Subject	Lead
1	10.00 – 10.30	Parse & Correlate Overview	Julian Hughes
2	10.30 – 10.45	Minutes, Actions from previous meeting and review of RAID	Colin Sawyer
3	10.45 – 11.30	Feedback from HAN Strategy Workshop	Colin Sawyer
4	11.30 – 12.30	Intimate Comms Hub Interface	Colin Sawyer
		Lunch	
5	13.15 – 13.45	Feedback from Keypad Workshop	Tim Bailey
6	13. 45- 1430	BP and DUGC updates	Mike Bennett
7	14.30 - 14.45	Deliverables and timeline	Colin Sawyer
8	14:45 – 15:00	AOB	

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1. PARSE & CORRELATE OVERVIEW

Julian Hughes

Correlate

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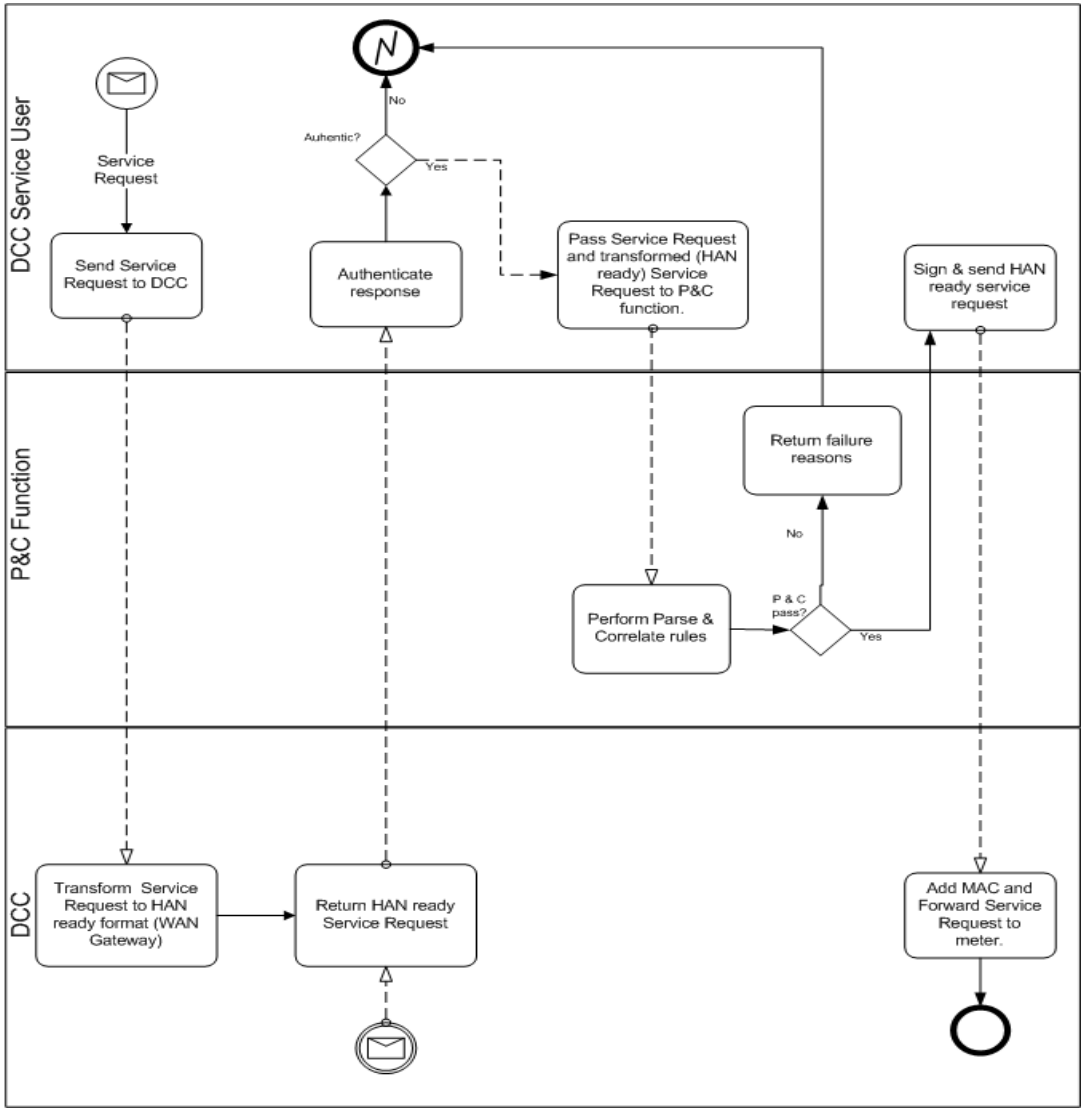

The DCC Service User waits for the transformed HAN ready version of a 'Critical' request to be returned by the DCC. This is then correlated against the corresponding Service Request. Both are passed to the function at the same time for comparison and a pass/fail is returned.

Note that 2 alternative business processes were considered:

1) Copy all outbound requests tot he the correlate function for later retrieval and correlation
2) All outbound messages pass through the Correlate function which manages the process.

These were dismissed as they encroach on the application designs of DCC Service Users.

PARSE

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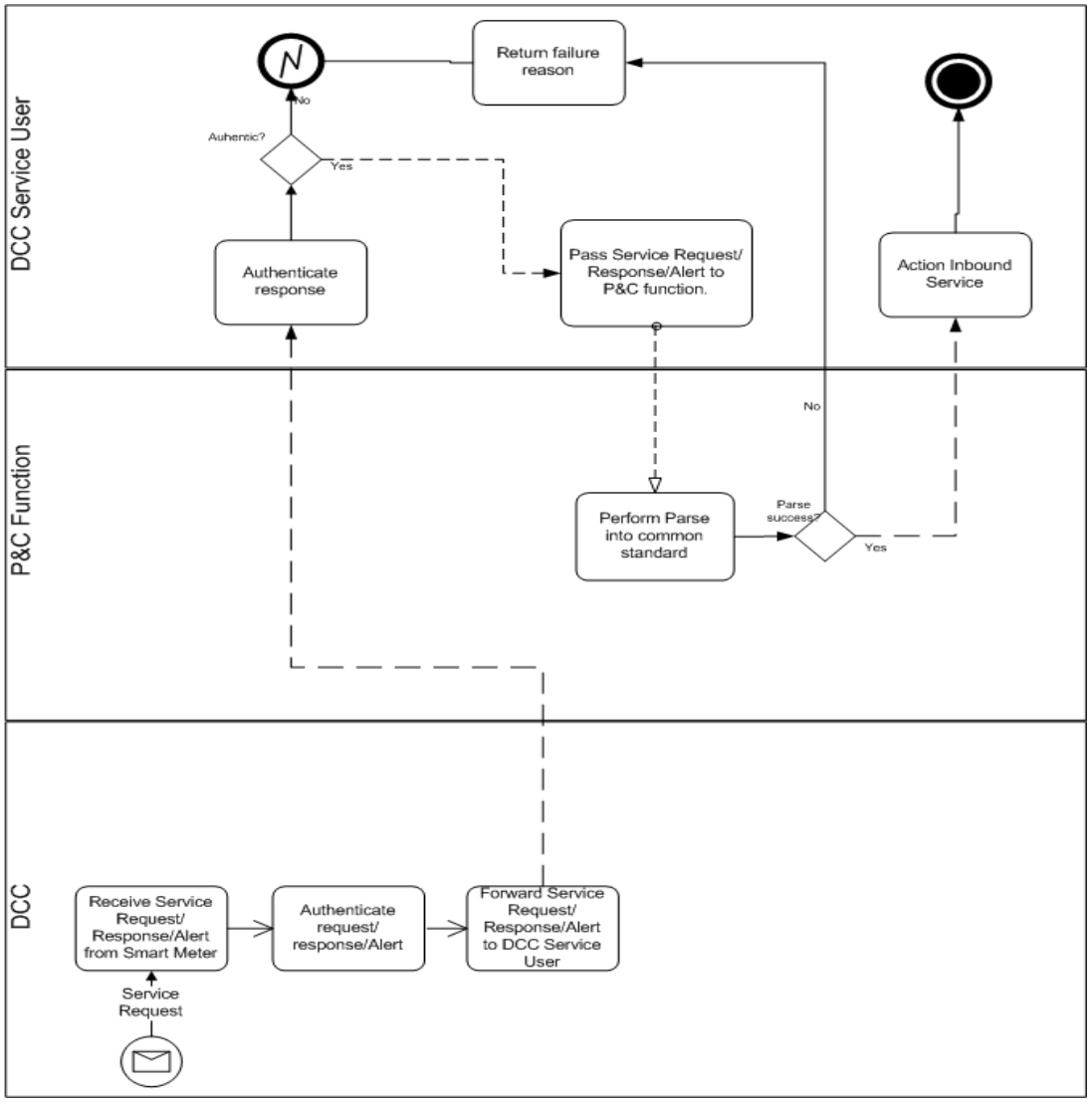

Parse Service Requests/Responses/Alerts inbound to a DCC Service User into a common format.

The DCC Returns GB Companion Specification formatted messages to the DCC Service User. These are then passed into the 'Parse Function' for conversion into a common developer friendly format.

Note that DSP transformation of GB Companion Specification formatted messages was discounted as this will invalidate digital signatures.

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2. ACTIONS FROM PREVIOUS MEETING AND UPDATE OF RAID

Colin Sawyer

Actions

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Action ID	Action	Due Date	Owner	Status
SDAG_2.07	**User Roles Matrix;** DECC agreed to confirm the dates to discuss User Roles Matrix including which services each DCC Service User will have access (including critical commands). The matrix will be covered CWG and Core Services debate	24.01.13	JH	**Open**
SDAG_2.10	**WAN Coverage**: DECC agreed to consider a proactive push of change of coverage information to suppliers. **Update**: This has been considered and as a result of stakeholder feedback we have included an additional requirement in the ISFT documentation set to enable DCC Service Users to download complete coverage information whenever they wish to do so to use within their own planning systems.	26.02.13	SS	**Closed**
SDAG_2.11	**Billing reads:** Npower agreed to inform DECC if they have any residual concerns with billing cycle orchestration & push/pull comments once they have read the Technical Architecture document ***Update:*** *AC agreed to provide DECC with information on where processes are misaligned and a list of the risks associated*	26.02.13	AC	**Open**
SDAG_2.12	**Error Handling:** DECC agreed to consider error handling requirements for service orchestration & determine whether further details need to be provided in ISFT.	26.02.13	JH	**Ongoing**
SDAG_2.13	**Batching of User requests:** Stakeholders were keen to get a requirement for batch updates of service requests over the DCC User Gateway. DECC agreed to consider if this fitted within the architecture.	26.02.13	JH	**Ongoing**
SDAG_2.15	**Outage reporting**: DECC to talk to Alan Creighton of the ENA to discuss Outage Management requirements and confirm requirements from the ENA and ensure alignment within the CSP schedule 2.1	24.01.13	PC	**Open**
SDAG_1.03	**SDAG Agenda items**: To enable forward planning of SDAG, DECC agreed to set out the programme of work, including products that require SDAG review, to SDAG on 10.01.13 ***Update: An updated timetable for the programme was being developed***	10.01.13	CS	**Open**

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Actions

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Action ID	Action	Due Date	Owner	Status
SDAG_3.01	DECC agreed to issue product descriptions to SDAG Members when they had been completed		CS	**Ongoing**
SDAG_3.02	DECC agreed to clarify the timetable and prepare the process for GB security extensions.	26.02.13	AA	**Open**
SDAG_3.03	It was agreed that an industry-led workshop would be held in Feb 13 to discuss the solutions available to enter the UTRN into the PPMID via keypads. Feedback from the workshop was to be provided at the next SDAG meeting **Update**: Workshop was held on 20 Feb 13. Feedback was given as agenda item at meeting held on 26 Feb 13.	26.02.13	PM	**Closed**
SDAG_3.04	All SDAG members were to review the master issues log and provide any comments to DECC prior to the next SDAG meeting	26.02.13	ALL	**Open**
SDAG_3.05	BEAMA agreed to send their concerns on the implications of the security requirements to DECC. **Update**: This is currently being addressed by discussions between SSWG and DECC, these discussions have not yet concluded ongoing	26.03.13	Chris S	**Ongoing**
SDAG_3.06	DECC agreed to issue the CHTS to SDAG members for comment at the earliest opportunity to ensure that the comments raised could be addressed and the final IDSFT could be issued to bidders on 8 Apr 13. **Update**: Issued for comment 13 Feb 13.	26.02.13	JH	**Closed**
SDAG_3.07	DECC agreed to arrange a HAN workshop to discuss the strategy for the future versions of the Comms Hub. Update: A HAN strategy workshop was held on 13 Feb 13.	26.02.13	CS	**Closed**

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3. FEEDBACK FROM HAN STRATEGY WORKSHOP (13 FEB 13)

Colin Sawyer

Objectives

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- To assess strategic options to deliver 100% HAN coverage

Contents:

- Assumptions
- Technology Components
- Property Types
- Scenarios
- Regulatory Implications
- Conclusions

Assumptions

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- DSP will only support a single set of commands:
  - DLMS commands for electricity meters
  - ZigBee SEP commands for gas meters and other devices
- A solution is required for the start of mass roll-out in late-2014 (i.e. certified products are required at volume)
- A 10 second update is required for electricity data on the IHD

Technology Components: 2.4MHz solution

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Capabilities:	*Development requirements:*
• Available within required timescales • Will link CH to gas meters in c70% of properties • Will link CH to IHD/CADs in c70% of properties • No evidence of interference • Can be fixed price in CSP procurement	• ZigBee SEP v1.2 and DLMS both require security extensions for GB market
Limitations:	*Risks:*
• Will not support properties with remote gas meters • Will not support remote IHD/CADs without repeaters (or wired HAN)	• Quality and timeliness of spec for GB security extensions - low • Adoption by ZigBee Alliance - low

Technology Background: Wired HAN solution

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Capabilities:	*Development requirements:*
• Uses PLC technology to carry messages from CH to IHD/CAD • At minimum, required to provide solution for <5% of properties where wireless doesn't propagate • Solutions already available in market – but development needed to transport ZigBee / DLMS to PLC	• Depends on outcome of wired HAN trial
Limitations:	*Risks:*
• Wired HAN trial will test usability of existing solutions across sample GB property base • Cannot seek fixed prices through CSP procurement	• Trial reveals problems in using wired HAN solution – med/high • Cost of wired solutions (incl. power consumption) is significantly higher than wireless - med

Technology Background: Simple Gas-only 868MHz solution

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Capabilities:	*Development requirements:*
• Will address >95% of gas meters • Half hourly comms meets duty cycle limitations of licence-exempt spectrum • Acceptable development timescales (c 18 months) – 868MHz gas-only chips already available • Benchmark prices via CSP procurement	• Development of gas-only 868MHz solution spec and products • Development of gas-only interoperability testing regime (only for gas meters & CH)
Limitations:	*Risks:*
• Duty cycle limitations prevent use for IHD/CADs • 'Remaining' gas meters will require alternative solutions (e.g. separate CH)	• Quality and timeliness of gas only 868MHz spec – low • Levels of interference impact performance – low • 'Retro-adoption of gas-only 868 spec by ZigBee Alliance – low • Comments during EU notification - low

Technology Background: Full 868MHz solution with Frequency Hopping

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Capabilities:	*Development requirements:*
• Single solution to link CH to majority of gas meters (>95%) and to IHD/CADs (>95%) • Employs frequency hopping to satisfy duty cycle requirements and reduce interference	• Development of full 868MHz solution spec and products • Development of full 868 interoperability testing regime (for all devices)
Limitations:	*Risks:*
• Long development timeline (≥3 yrs) • 'Remaining' gas meters will require alternative solutions (e.g. separate CH) • Cannot seek fixed prices through CSP procurement	• Complexity, quality and timeliness of full 868MHz spec – high • Interference: in band = low, out of band = med • Lack of market interest – medium/high • Retro-adoption of full 868 spec by ZigBee Alliance – low • Comments during EU notification – med

Technology Background: Optimised 868MHz solution

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Capabilities:	*Development requirements:*
• Single solution to link CH to majority of gas meters (>95%) and to IHD/CADs (>95%) • Involves 'slimming down' ZigBee functionality to meet duty cycle restrictions (e.g. removing MESH) • Might be introduced progressively with gas first, then 'full' via OTA upgrade	• Development of optimised 868MHz solution spec and products • Development of full 868 interoperability testing regime (for all devices)
Limitations:	*Risks:*
• Longer development timeline than gas-only 868 • Uncertain market interest in solution development • 'Remaining' gas meters will require alternative solutions (e.g. separate CH) • Cannot seek fixed prices through CSP procurement	• Uncertainty of feasibility – low/med • Lack of market interest – low/med • Interference: in band = low, out of band = med • Retro-adoption of optimised 868 spec by ZigBee Alliance – low • Comments during EU notification – medium

Technology Background: Separate Gas Comms Hub

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Capabilities:	*Development requirements:*
• Means of managing ‘very remote’ gas meters • Requires power source (potentially battery) at gas meter site • Only expected to be needed in very small number of cases • Alternatively might allow derogation to AMR	• None – unless a power-optimised CH variant is required
Limitations:	*Risks:*
• Can’t link gas meter to the same IHD/CAD/PPMID as used by electricity • Likely to be unsuitable for prepayment • Standard comms hub can be used but supplier has to provide power source (incl. battery replacement)	• Power demand results in frequent battery replacement - high

Property Types

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A - '2.4GHz guaranteed'

- c. 70% of GB properties
- Electricity (and CH) and gas meter in close proximity
- IHD local to electricity meter (or can utilise repeaters or wired HAN)
- Therefore able to utilise 2.4GHz solution

B - 'Remote Gas'

- Up to 30% of GB properties
- Electricity meter (and CH) in property (e.g. under stairs); gas meter remote (eg in garage)
- IHD local to electricity meter
- Therefore need an 868MHz solution (or wired link with tamper-proof bridge)

C - 'Remote IHD / CAD'

- Up to 30% of GB properties
- Electricity meter (and CH) and gas meter in close proximity
- IHD/CADs remote from CH (outside range of 2.4GHz solution)
- Therefore need full 868MHz solution or PLC (or PLC bridge) or a 2.4GHz solution with repeaters

D – 'Other property types'

- <5% of GB properties – principally flats with IHD/CADs which are remote from electricity meter and (CH)
- Therefore need PLC

E – 'Very Remote Gas'

- <1% of properties
- Gas meter is outside the range of 868 reception from elec meter / CH

Scenarios

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- Scenarios were developed in a workshop with EUK / suppliers
- All scenarios are designed to deliver c. 100% HAN coverage
- Scenario 5 identified in the workshop is treated as a variant of Scenario 3 in this slidepack
- Under all scenarios there is a need for the ‘Separate Gas Comms Hub’ for very remote gas meters. This should apply to <1% of properties
- All scenarios commence with 2.4GHz only as this is the only solution available from the start of mass roll-out – therefore under all scenarios there is a period during which:
  - Suppliers must screen to determine whether install can proceed
  - First supplier may leave CH which can’t support the gas meter

Scenario 1: "Gas only & significant PLC"

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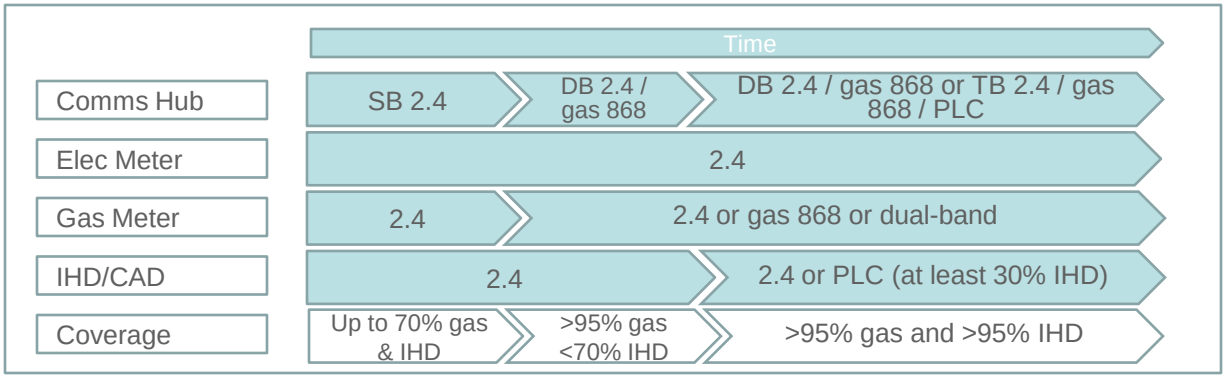
2.4 used from start of mass roll-out. Gas-only 868 and PLC are introduced when available. PLC is used for IHD/CAD in at least 30% of homes). Tri-band (2.4/gas 868/PLC) would simplify field logistics but at cost of installing PLC in all comms hubs



SB = single band
DB = dual-band
TB = tri-band

PROs	CONs
• Confidence in delivering gas 868 is high • Short timescale to deliver gas 868 means minimum time during which properties have to be screened out from installation • Electricity meters always 2.4	• IHD may be in non-preferred location until PLC available • CAD purchasers will need to know whether to buy 2.4 or PLC • Cost of PLC to 30% IHD/CAD (or worse if tri-band CH is standard) will be high

Scenario 2: "Switchover to 868" (Based on full 868)

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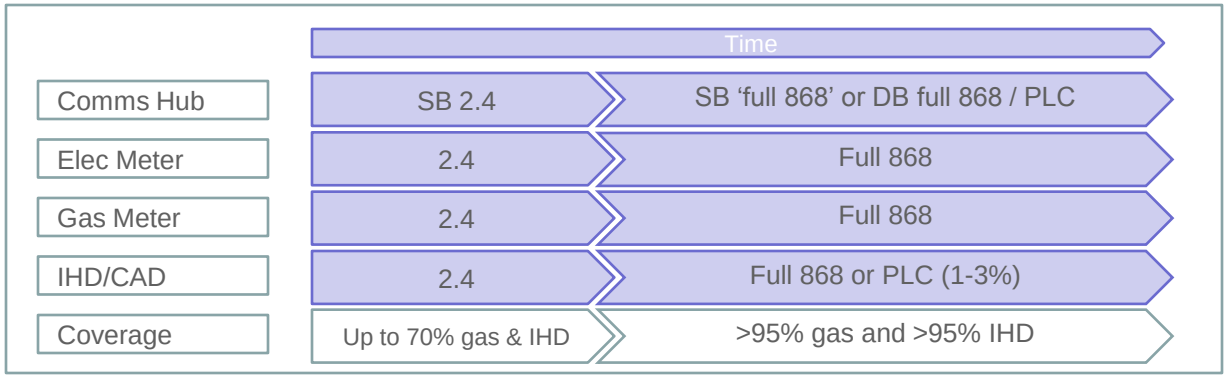
2.4 used from start of mass roll-out. Full 868 (with frequency hopping) and PLC are introduced when available and 2.4 is phased out from then. PLC is used for IHD/CAD in difficult building only. Enduring solution for comms hubs is single band 'full 868' with dual-band full 868 / PLC for 1-3% of premises



Note: the diagram shows a 'clean break' between 2.4 and full 868. In practice there will be a phase out period and there will be a legacy population of 2.4.equipment to be managed

PROs	CONs
• In the long term (after all 2.4 equipment has been replaced) there will be uniform use of 'full 868' except in very small numbers of difficult properties (simple logistics) • … but in the meantime there will be complexities of a mixed estate • Apparently low total cost but legacy estate may drive complexity and cost	• Risk that switch to 868 creates fear of obsolescence, eroding investor confidence and delaying roll-out • Legacy of 2.4 presents replacement and/or second supplier challenges • Longer time before solution available for remote gas means site screening is needed for longer • Switch to 868 may result in stranding of 2.4 CAD devices installed by consumers (at replacement or CoT)

Scenario 3: "868 with limited PLC" (Based on optimised 868)

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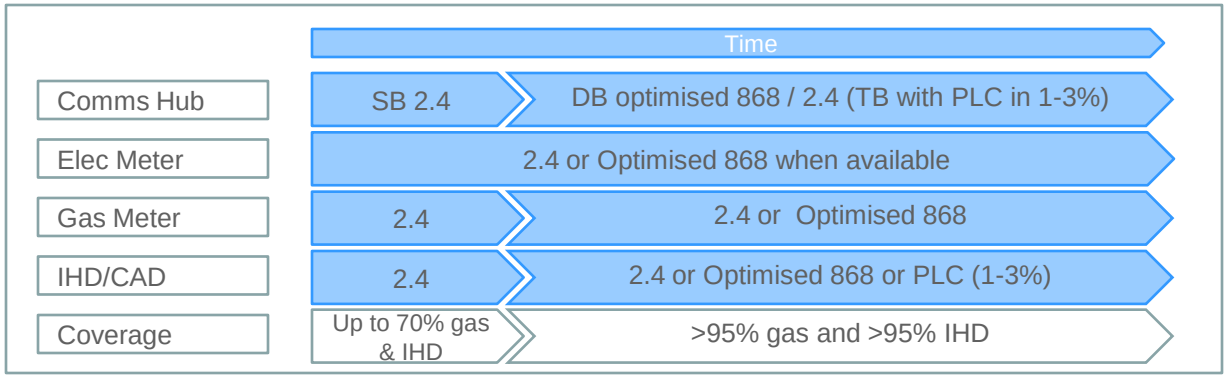
2.4 used from start of mass roll-out. Optimised 868 and PLC are introduced when available. PLC is used for IHD/CAD in difficult buildings only. Enduring solution for comms hubs is dual-band 'optimised 868' / 2.4 with PLC bridge or tri-band for 1-3% of premises



Note: a variant to this scenario (discussed as scenario 5 at the workshop) would be to deliver the optimised 868 in two stages – firstly gas then full functionality

PROs	CONs
• Electricity always 2.4 • Dual-band 2.4 / 868 comms hub becomes standard in all but difficult buildings • Market can determine mix of 2.4 and 868 CADs (with PLC / wireless bridge for difficult properties) • IHD market can also be demand driven – although at least 30% will be 868 • Backward compatibility of CAD devices	• Feasibility of and delivery period for optimised 868 are uncertain – period for screening for 2.4 may be longer than scenario 1 • Suppliers wishing to standardise on 868 for gas (for operational simplification) would replace 2.4 comms hubs at second install • CAD purchasers will need to know HAN type (unless CADs are produced as dual-band)

Scenario 4: "Bridges to 868/PLC"

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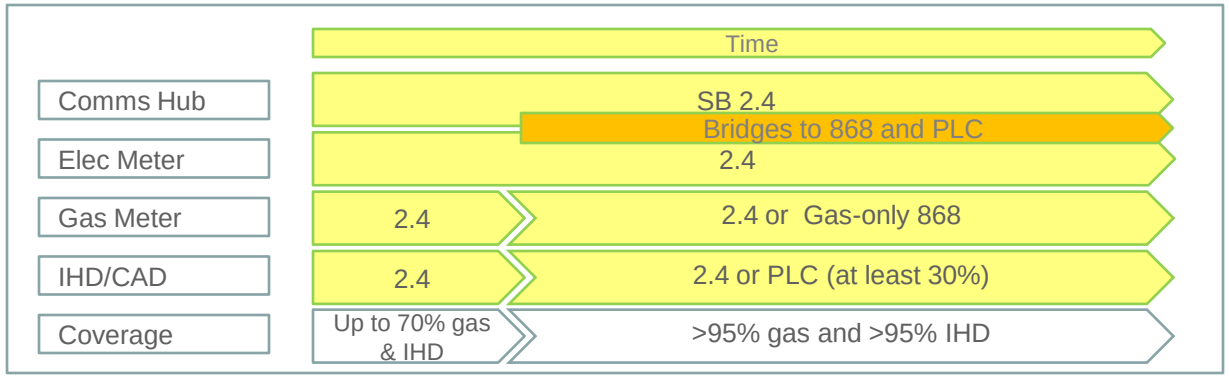
2.4 used as the standard technology on an enduring basis. As 868 (gas-only or optimised) and PLC become available, suppliers procure bridge devices (2.4 to 868 and 2.4 to PLC) to install links to remote gas and IHD/CADs. Bridges are only installed where required and ideally would be plugged into standard sockets on the comms hub.



PROs	CONs
• Electricity and comms hubs always 2.4 • 868 and PLC will only be used where necessary • No nugatory cost in comms hubs (bridges only installed where necessary) – but high proportion of PLC will be needed if gas-only 868 is used	• Need for plug in bridges will either add cost to comms hubs or (for PLC) require a special hot shoe adaptor • Plug in bridges may not be operationally robust • CAD purchasers will need to know whether to buy 2.4 or PLC

Summary of Scenarios – following initial period

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Criteria	1: Gas only 868 and significant PLC	2: Switchover to 868 (based on full 868)	3: 868 with limited PLC (based on optimised 868)	4: Bridge to 868/PLC
Consumer experience	+ CADs will operate at 2.4 (need to be within range or bridged) - IHDs will be mix of 2.4 & PLC - CH may need to be replaced at 'gas second' (CAD re-paired)	-Some homes 2.4 others 868 - CADs may not be transferrable when moving home - Elec meter might need to be replaced at 'gas second' (CADs re-paired)	+ CADs will operate at 2.4 or 868 (or bridged PLC in 1-3%) - IHDs will be mix of 2.4 and 868 -CH may need to be replaced at 'gas second' (CADs re-paired)	+ CADs will operate at 2.4 (need to be within range or bridged) - IHDs will be mix of 2.4 & PLC -CH may need to be replaced at 'gas second' (CADs re-paired)
Cost	+ CH costs can be benchmarked - Cost for dual/tri band CH with PLC (PLC in at least 30%)	+ Majority of homes will only need single band CH -Complexities of legacy estate will drive logistics costs up or require dual band CH to simplify + PLC only used in 1-3%	+ Most homes will have wireless HAN + PLC only used in 1-3% - Standard CH will be dual-band	+ All homes will have single band CH -PLC bridge required in at least 30% of homes - 868 bridge required in at least 30% of homes - robustness of modules may present operational issues
Benefits (excl. timing factors)	+ CAD standardisation (with bridge in some cases) should promote use of CADs - If IHDs not in preferred locations benefits eroded	- Benefits likely to be deferred - switch to 868 will cause suppliers / MAPS to avoid risk of stranding	+ CAD options should promote use of CADs	+ CAD standardisation (with bridge in some cases) should promote use of CADs
Risk	+ Solution elements understood + Chipsets are available for gas-only 868 - Retro-adoption of 868 will increase EU notification risk	- Development timescale for full 868 - Retro-adoption of 868 will increase EU notification risk	-Solution feasibility not finalised - Chipset availability and interest of vendors needs to be established - Retro-adoption of 868 will increase EU notification risk	+ Solution elements understood + Chipsets are available for gas-only 868 - Retro-adoption of 868 will increase EU notification risk
Future flexibility	-No forwards compatibility for gas-only 868 - Backwards compatibility for gas meters could be an issue if optimised 868 is developed	-Presence of 2.4 meters and CADs will limit standardisation on 868 + When all 2.4 phased out provides single platform (late 2020s)	+ Expect forwards compatibility as optimised 868 evolves + No backwards compatibility issues if dual-band CH is standard	+ Modularity allows other solutions to be installed at supplier choice

Regulatory issues to be addressed

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- At install by first supplier should there be obligations to test propagation to second meter / IHD?
  - ?
- Should suppliers be obliged to install the IHD in the consumer's preferred location? … and does this oblige them to provide repeaters?
  - ?
- Should suppliers be obliged to inform consumer of HAN type?
  - *Yes*
- Others?

Preliminary Conclusions

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- Scenarios 2 & 4 not widely supported at supplier workshop
- Scenario 1 (gas-only 868) presents highest confidence of delivery – but requires high % of PLC so comms hub costs will be higher and benefits may be eroded (IHD location)
- Scenario 3 (optimised 868) is attractive as it limits PLC use thereby keeping down comms hubs costs – but feasibility needs to be confirmed
- Starting with Scenario 3 with reversion to 1 if optimised 868 is not feasible offers attractions with low downside (c. 4-5mth slip to gas 868)
- Other regulatory obligations need consideration: but over-prescription (e.g. of IHD location) may be unworkable given variety of buildings

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4. INTIMATE COMMS HUB INTERFACE

Colin Sawyer

Intimate Comms Hub Interface (ICHI) - Key questions

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- Should a standardised specification be mandated for intimate fitting? Yes
- If yes, what standardised specification should be adopted?
- What ICHI features should be specified in first generation CSP comms hubs?
- What ICHI features should be mandatory in ICHI electricity meters?
- What regulatory mechanisms should be adopted for ICHI?

Intimate comms hub design

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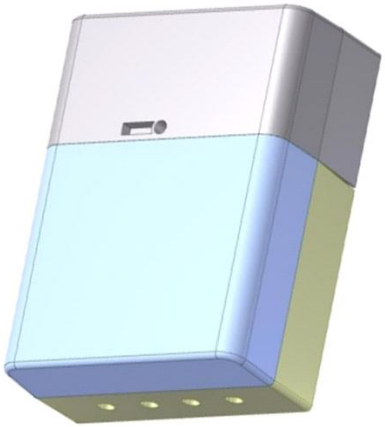


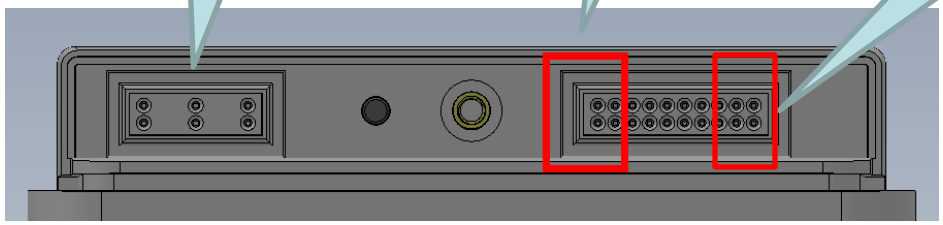
Intimate comms hub fitted on electricity meter ….

…. and with the two devices separated to show the interface

AC connector for injecting / receiving HAN or WAN PLC signals (plus option of providing AC power for comms hub)

Connector to provide DC power to comms hub

Connector to provide data link between comms hub and electricity meter



View from front of Meter

Communication between e-meter and comms hub

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All data communication between comms hub and elec meters will be wireless (the AC connector is only used to inject / receive PLC signals)

This ensures that elec meters are interoperable even if the comms hub deployment changes from standalone to intimate (or vice versa).

Notes:

1. Initially the wireless frequency will be 2.4GHz. As and when a fully functional 868MHz solution is available, this may be permitted as a variant if dual-band 2.4/868 comms hubs are procured.

2. Specification of pins for a 'data link' provides future proofing in the event that an open protocol is developed which could carry ZigBee across a wired data link.

Wireless HAN – intimate fitting

Wireless is shown as 2.4 but might equally be dual-band 2.4 / 868

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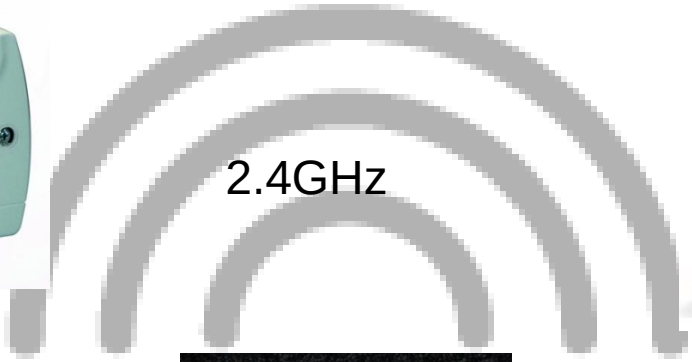
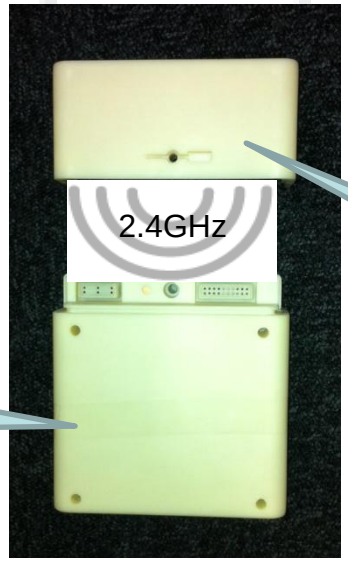
Consumer procures CAD with 2.4GHz radio



Gas Supplier procures g-meters:
- battery power supply
- 2.4GHz radio

Supplier procures IHD with 2.4GHz radio



DCC procures comms hubs with intimate fitting:
- DC powered
- 2.4GHz radio
- AC connector ‘blanked’

Elec Supplier procures e-meters with intimate fitting:
- DC connector: active - provides power to CH
- 2.4GHz radio
- AC connector – supplier choice on whether to procure active (for future proofing) or ‘blank’

Wireless HAN – stand-alone fitting

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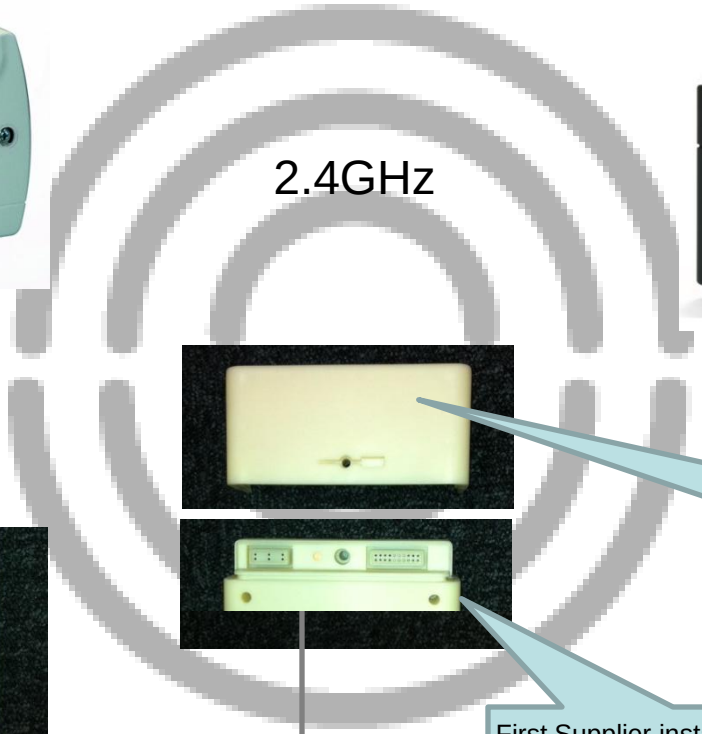
Gas Supplier procures g-meters:
- battery power supply
- 2.4GHz radio

Consumer procures CAD with 2.4GHz radio

Supplier procures IHD with 2.4GHz radio



Elec Supplier procures stand-alone e-meter
- 2.4GHz radio

DCC procures comms hubs with intimate fitting:
- DC powered
- 2.4GHz radio
- AC connector 'blanked'

First Supplier installs CH power supply (hot shoe) with intimate fitting:
- DC connector – active: provides power to CH
- AC connector – supplier choice on whether to make active (for future proofing) or 'blank'

AC Supply

Dual ‘band’ comms hub with wireless and wired HAN – intimate fitting

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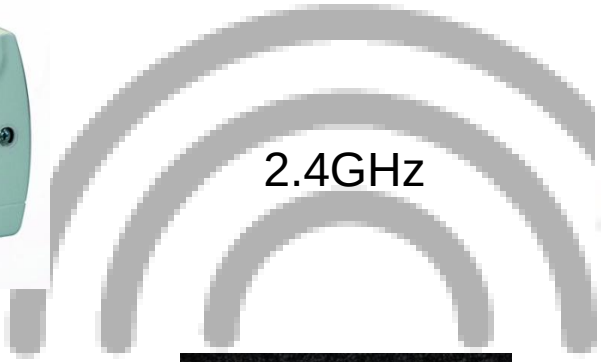
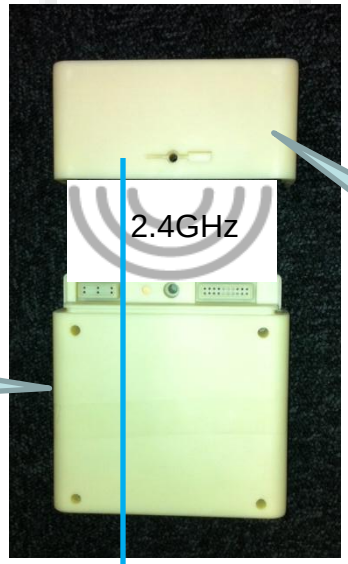
Gas Supplier procures g-meters:
- battery power supply
- 2.4GHz radio



Consumer procures CAD with 2.4GHz radio (must be fitted within 2.4 range)

Supplier procures IHD with 2.4GHz radio or PLC



PLC

Elec Supplier procures e-meters with intimate fitting:
- DC connector: active - provides power to CH
- 2.4GHz radio
- AC connector – supplier procures ‘variant’ e-meter with AC connector active

DCC procures dual-band comms hubs with intimate fitting:
- DC powered
- 2.4GHz radio
- AC connector: CSP offers wired HAN variant with connector active

Dual 'band' comms hub with wireless and wired HAN – stand-alone fitting

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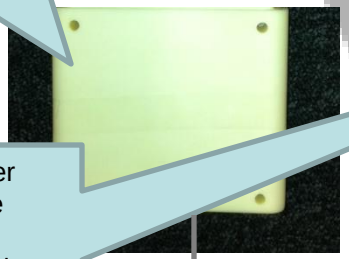
Gas Supplier procures g-meters:
- battery power supply
- 2.4GHz radio

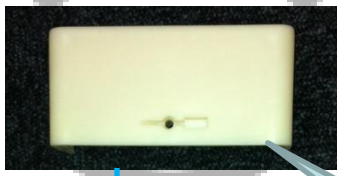
Consumer procures CAD with wired HAN or 2.4GHz radio (see next slide)

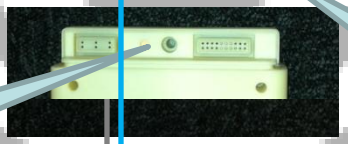
2.4GHz

Supplier procures IHD with wired HAN connection

Elec Supplier procures stand-alone e-meter
- 2.4GHz radio







First Supplier installs CH power supply (hot shoe) with intimate fitting:
- DC connector – active: provides power to CH
- AC connector – supplier choice on whether to make active (for future proofing) or 'blank'

DCC procures dual-band comms hubs with intimate fitting:
- DC powered
- 2.4GHz radio
- AC connector: CSP offers wired HAN variant with connector active

AC Supply

HAN PLC

Use of wireless CAD / IHD with wired HAN

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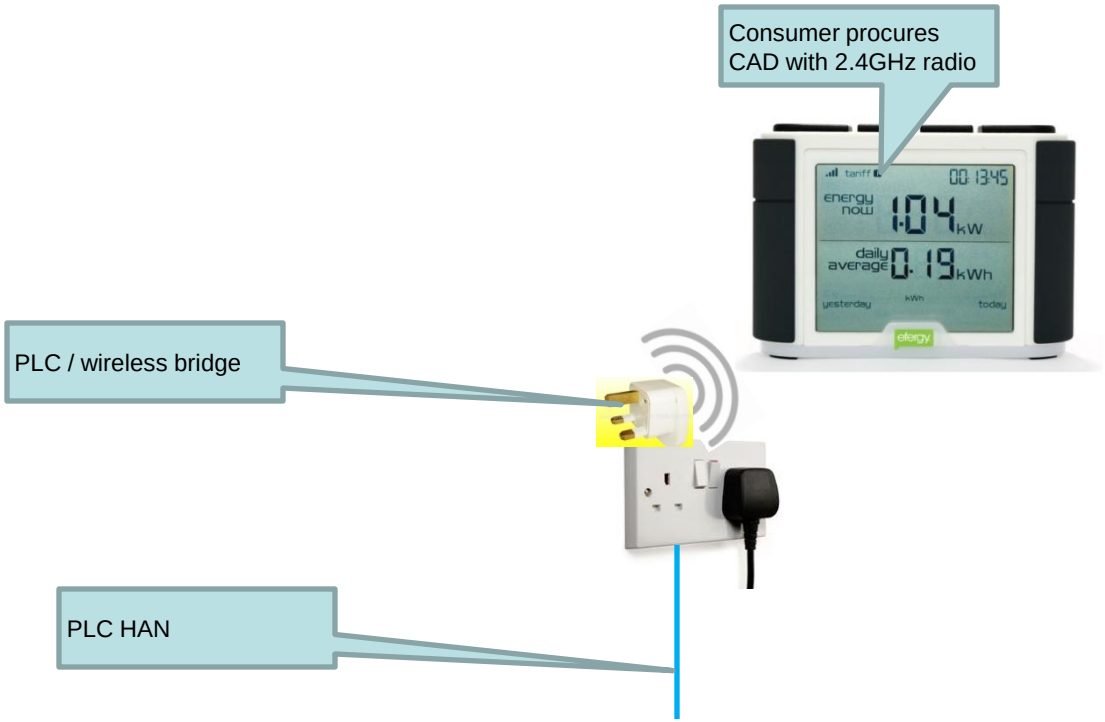

Intimate Comms Hub Interface (ICHI) - Possible positions

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- Should a standardised specification be mandated for intimate fitting? Yes
- If yes, what standardised specification should be adopted? BEAMA / EUA specification
- What ICHI features should be specified in first generation CSP comms hubs? DC power
- What ICHI features should be mandatory in ICHI electricity meters? Supplier choice (might mandate DC if ICHI included in SMETS)
- What regulatory mechanisms should be adopted for ICHI? Include in CSP contract and publish spec or include in CHTS / SMETS

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5. FEEDBACK FROM KEYPAD WORKSHOP (20 FEB 13)

Tim Bailey

Keypads on Meters Workshop Feedback

General Themes

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- **Keep consumers away from smart meter**
  - *Look at options to ensure that far fewer than 1% of people should ever have to interact with the smart meter user interface)*
- **Specifying a keypad only (and not other items such as the display) will not guarantee a good consumer experience / desired outcome**
  - *Display is equally important as the physical user interface*

Keypads on Meters Workshop Feedback

Summary of Output – Alternative Options to Keypad

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Emergency UTRN use case (supply is remotely disabled and WAN / HAN goes down)

- Loss of WAN / HAN can be detected and communicated to meter
- Supply becomes armable (through “button” on meter) for credit and PPM consumers, but can only be enabled if sufficient credit available

Local CAD pairing use case (use electricity meter to enter CAD credentials) – options:

- Remote pairing service
- Data entry on CAD of PC connected to CAD

PPM top-up use case (manual top-up of credit at the meter)

- Loss of WAN / HAN detected and communicated to meter at which point time limited “friendly disconnect” commences. Stop when WAN / HAN communications re-established.

Keypads on Meters Workshop Feedback

Next Steps

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- Further cost benefit analysis on alternative options
- Regulatory options definition, for example
  - Use existing obligations (do nothing)
  - New obligations

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6. USER GATEWAY CATALOGUE AND BUSINESS PROCESS MODEL ISFT INITIAL RELEASE

Mike Bennett

Contents

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- Artefact relationships and dependencies
- Impacts on UGC/BPMs
- High Level Changes
- Next steps

Product dependencies

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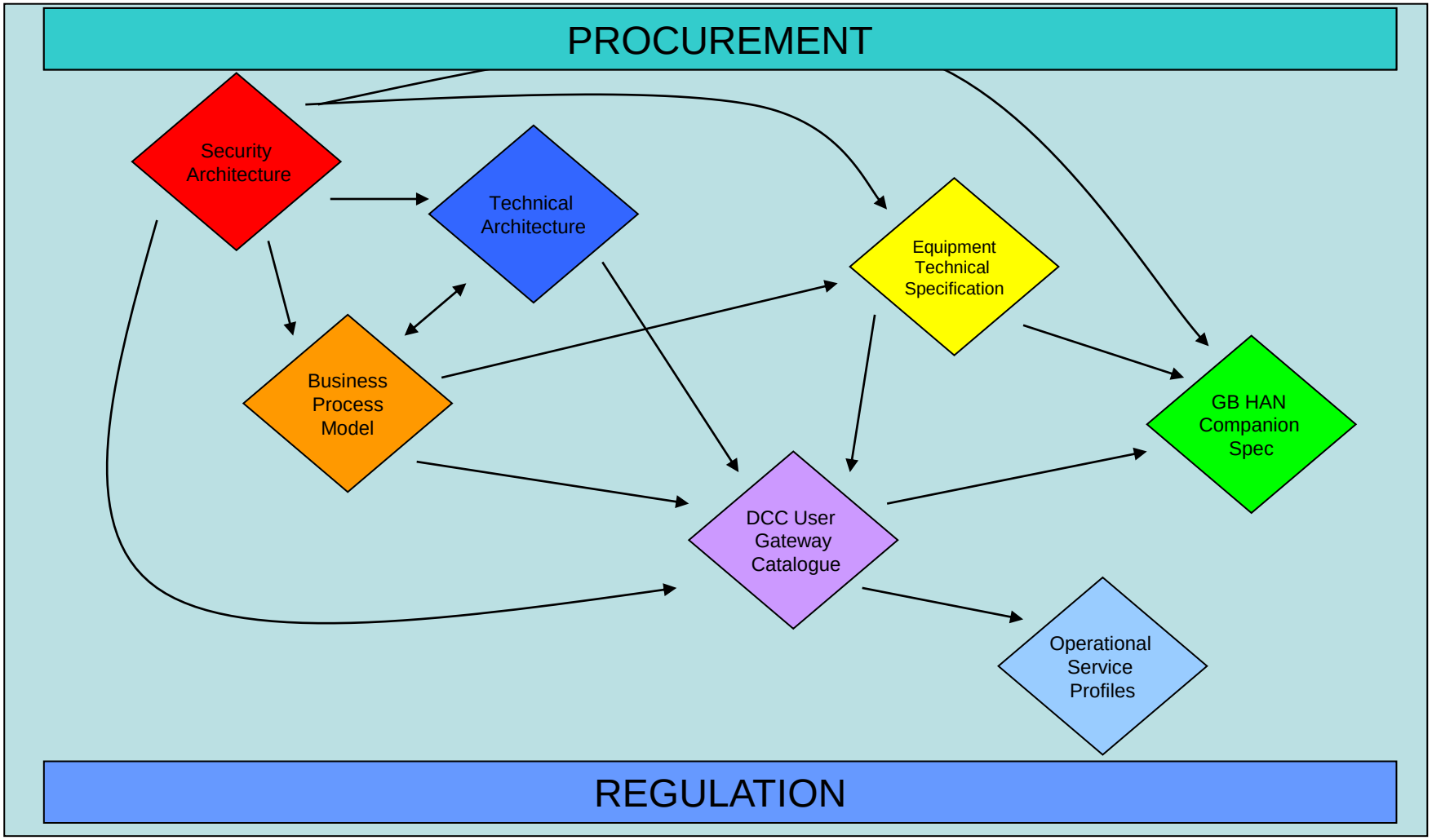

UGC/BPM purpose

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User Gateway Catalogue

- Provide business context layer to SMETS/equipment commands/data items
- Provide the business level user gateway interface definition
- Inform demand estimation
- Inform GB HAN Companion Spec
- Inform SEC

Business Process Model

- Elicit functional requirements for procurement
- Define scope of processes
- Define actors
- Provide business level context view
- Provide visibility of interface points
- Inform User Gateway Catalogue

High Level Impacts to UGC and BPM

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	Business Process Model	DCC User Gateway Catalogue
Security Architecture	• Reliance at each end not DCC	•Subscription services no longer valid • Services required to manage change of credentials
Technical Architecture	• CoS • Opt in/Opt out • UTRN	• Manage prepay • CoS • Install/Decommission
Equipment Technical Specification	• CPLs	• Aux load Control • removal of data/future dated commands • Comms Hub •Max Demand

High level structural changes – across UGC and BPMs

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- Distinction between Critical and Non critical commands
    - Access Control at meter not DCC for critical commands
    - Critical commands to be signed
    - Sensitive commands and responses
    - Responses/alerts are addressed to recipients
- Understanding of message protocol formats (HAN) and impacts
    - Transform processes
- Billing reads managed by Billing calendar at meter rather than DCC
- Firmware – 2 stage process
- Processes for credential management
- Install and Commission – meter initiated
- CoS – transitional and enduring - authority to change security credentials on meter
- Prepayment – supplier managed
- SMETS 2 capabilities defined

DCC acts only on instruction and does not make business level decisions

User Gateway Catalogue - High level change items

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- Addition of ALC services
- Addition of Supplier Nominated Agents
- Maximum demand data capabilities
- Additional configuration capabilities
- Removal of functions unsupported by meter –
    - Remove data
    - Remove pending commands
- Removal of subscription services (as counter to security architecture)
- Merge of mode setting
- Configure Event Behaviour and Display Message service requests remain as place holders and subject to SMETS/GB HAN Companion Spec definition

Business Process Model - High level change items

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Added:

- Install and Leave process
- Retrieve Billing Data Log
- HHT processes
- Update Security Creds
- Transitional CoS

Removed:

- Non-DCC processes
- UTRN
- Subscription processes
- Circulation control

Amended:

- Install and commission
- Product management
- Meter reading
- Config management
- Firmware
- CIN
- CoT
- Access and security
- CoS

Next Steps

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1) Incorporate comments/changes
2) Incorporate Comms Hub services

- **Design freeze 8th March 2013**

1) Align Regulation
2) Notify to Stakeholders (as part of demand estimation)
3) Publish for ISFT final - **8th April 2013**
4) Hand over artefacts to DSP/CSP/DCC

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7. DELIVERABLES AND TIMELINE

Colin Sawyer

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Artefact	Final Doc	Current Version	Publication Date	Next Version	Next Forecast Publication
DCC User Gateway	SEC	2.0	14 Feb 13	3.0	5 Apr 13 ISFT final
Self Service Interface	SEC	Draft			5 Apr 13 ISFT final
Registration interface	SEC	Draft			29 Apr 13 SEC2
SMETS2	SEC	2.0	24 Jan 13	3.0	30 Aug 13
CHTS	SEC	1.16	12 Feb 13		5 Apr 13 ISFT final
GB Comp Spec	SEC	Draft			30 Aug 13
DCC Gateway Service Levels	SEC	Draft			29 Mar 13
Service Management Requirements	SEC	Draft		1.0	5 Apr 13 ISFT final
Registration Interface - SLAs	SEC	Draft			29 Apr 13 SEC2
DCC Accreditation	SEC	Draft			29 Apr 13 SEC2
DCC user certification	SEC	Draft			29 Apr 13 SEC2
Equipment Certification – Security Characteristics	SEC			1.0	Jun 13

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User Gateway CoCo (DSP)	SEC?				(Nov 13?)
Target Operating Model				2.0	11 Jun 12
Business Processes		1.0	Feb 12	2.0	May 13
Technical Architecture		0.3	21 Dec 13	0.4 1.0	5 Apr 13 17 Jul 13
Security Architecture				2.0 3.0	5 Apr 13 17 Jul 13
Interaction Models ??					
Trust Models		0.9	5 Sep 12		
Information Risk assessment		0.41	STEG only		Apr 13
Security Requirements		0.6	28 Jan 13	0.61	6 Mar 13
DSP Requirements	Contract	0.4	11 Feb 13		8 Apr 13
CSP Requirements	Contract	0.4	11 Feb 13		8 Apr 13

*Note: this schedule is work in progress – further consideration is being given to mapping deliverables against SEC schedules and other regulatory instruments

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8. AOB

- COS

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Next Meeting(s)

- Meeting 5 – 26 March 2013

  BIS Conference Centre, 10am–3pm,