Department of Energy & Climate Change

Solution Design Advisory Group (SDAG)

Minutes of Meeting #9

Date / venue: 24 July 2013, BIS Conference Centre

Attendees

Name	Company
Colin Sawyer (Chair)	DECC
Charlotte Middleton	DECC
Andrew Campbell	Npower
Jonathan Wheelwright	British Gas
Simon Trivella	British Gas
Chris Shelley	BEAMA
Andrew Monks	SSE
Colin Rowland	SSE
Paul Saker	EDF Energy
Ash Pocock	EDF Energy
Adrian Rudd	EON
Alastair Manson	Energy UK
Nigel Orchard	ESTA
Graham Smith	Scottish Power
Jane Franklin	AMO
Gary Cottrell	EUA
Mike Bennett	DECC
Tim Bailey	DECC
Elmaz Lyus	DECC

1. Minutes and Actions from previous meeting

1.1. The minutes from the previous meeting #8 was agreed by SDAG members.

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Actions from Previous Meetings:

Actions from Meeting #6

Action ID	Action	Due Date	Owner	Status
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 **Update**: Alan Creighton agreed to write to the Chairman on service levels by 28.03.13. **Update**: clarification on device states following power outage is documented in the ALC ELPM **Update**: AC and CS agreed to discuss this matter separately and AC would be sent a copy of the HCALC model. Meeting on the 11th July **Update**: 24/07/13 Meeting held – Alan C content with progress, and discussions will be held with CSPs	28.03.13	Alan C	Closed
SDAG_3.01	DECC agreed to issue product descriptions to SDAG Members when they had been completed **Update**: Following agreement of PDs submitted by bidders, DECC would issue to SDAG members		CS	Ongoing
SDAG_5.01	**Design Phase Milestones**. It was agreed that the design phase of the DSP and CSP would be discussed at a future SDAG meeting.	24.07.13	CS	Ongoing
SDAG_6.02	SDAG members were invited to provide evidence that the gas enable function was a safe process at the earliest opportunity. **Update**: SDAG members advised that the evidence was being collated and report would be issued in the near future – Sent	02.07.13	ALL	Closed
SDAG_6.03	A final version of the PPMID DDS was complete - it will be issued to SDAG members for information. **Update**: The DDS was undergoing legal review at DECC and would be issued to SDAG members in early June 2013. **Update:** 24/07/13 Currently the legal team have a high workload hence the delays to the previously estimated timetable. DECC are in the process of a consistency review and completing the legal review. Once completed, it will be sent out to members.	02.07.13	PM	Ongoing

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Actions from Meeting #8

Action ID	Action	Due Date	Owner	Status
2.6	Process to Support MOP working - As no conclusions were made bar to all agreeing that an 'option' should be made available, the Chair requested that the Group consider the options presented and email DECC with any particular opinions to assist further discussions at the next SDAG meeting. **Update:** 24/07/13 Agreed to close as members had no further particular thoughts. All agreed that the MOP was to use the DSP credential on meters.	24.07.13	All	Closed
3.7	**Parse & Correlate: Volumetrics and Scalability –** The mechanism for calculating the 34 transactions per second stated volumetric and support for higher volumes was not clear. The group was informed that the 34TPS was an approximate average of the largest supplier's expected transactions. The Group questioned whether the 34TPS be different and should it be scaled to peak transaction numbers. It was agreed for this to also be considered within the workshop. **ACTION ALL** Update: A position on volumetrics was agreed at the workshop held on 15th July and investigated subsequently. The outcome is reflected in the minutes of the workshop sent to attendees and SDAG members on 17th July. A further updated version was sent on the 24th July for members to view.	15.07.13	ALL	Closed
4.4	**Service Management – workshop feedback:** It was agreed that the slides would be updated to reflect members' views. **ACTION DECC**	07.08.13	Tim Hall	Open
4.6.3	**Prepayment – workshop feedback**: Confirm requirement to re-set the 'floor value' of the UTRN sequence number at CoS – No update at present. **ACTION DECC**	24.07.13	DECC	Open
4.6.4	**Prepayment – workshop feedback:** Arrange further briefing for small suppliers – Delayed due to procurement. **ACTION DECC**	TBC	DECC – James Biott	Open
4.6.5	**Prepayment – workshop feedback:** Circulate updated PPM Issues Log – **ACTION DECC**	07.08.13	DECC James Biott	Open

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Action ID	Action	Due Date	Owner	Status
8.4	**Privacy PIN:** There was some concern from the Group in allowing activation of the PIN locally, however did not want to withdraw that option from the consumer. The Group agreed options for the consumer needed further discussion. **ACTION DECC TIM BAILEY** to discuss within discussions with consumer groups.	28.08.13	DECC – Tim Bailey	Open
8.6	**Privacy PIN - options for setting protected data/functions** - The Group agreed that an option between the third and 5th Option would be preferable. Following Tim's meeting with consumer groups, feedback to members of the discussion to assist members with further consideration of the options and provide DECC with a firmer view. **ACTION DECC AND MEMBERS** **Update:** Feedback sent to members on 18 July. Members have been responding.	24.07.13	ALL	Closed
9.1	**SMETS2 export consumption** – Some members have seen the AMO document covering situations where a twin element meter also has export, and the rates appear inconsistent. AMO suggested that modifications to SMETS might be required. **ACTION DECC – Peter Morgan to write to AMO.** **Update:** Sent 26/07/13	24.07.13	Peter Morgan	Closed

<u>Actions from Meeting #9</u>

Action ID	Action	Due Date	Owner	Status
2.2	**Consolidated Issues Log:** DECC to amend the consolidated issues log based on discussion at Meeting #9 and distribute in advance of the SDAG meeting on 28 August. **ACTION DECC**	27.08.13	DECC – Elmaz Lyus	Open

Action ID	Action	Due Date	Owner	Status
3.6	**Hand-Held Terminals:** DECC to send out a questionnaire in relation to HAN joining options and SDAG members to respond with detailed comments by 2nd Aug. **ACTION: DECC** Mark Robins Update: Sent on 26th July, members responded with mixed views. Feedback to be presented to SDAG on 28 August	26.07.13	DECC – Mark Robins	Open
5.2	**SMETS2 Updates:** Changes listed by DECC were being applied and clarification of item 4 would be sent to members. **ACTION: DECC** Tim Bailey	28.08.13	DECC – Tim Bailey	Open
6.3.2	**Security Credentials on Meters Purchased by MOPs:** AMO requested clarification as to how this process was intended to operate. **ACTION: DECC/AMO**	28.09.13	DECC/ AMO – Mike Bennett & Jane Franklin	Open
6.4	**Security Credentials in the Event of SOLR:** Members requested clarification of the process for recovering credentials in the event of supplier failure. **ACTION: DECC** to investigate recovery and SoLR processes.	28.08.13	DECC – Mike Bennett	Open
7.2	**ZigBee development** – DECC encouraged members to contribute to the work of the ZigBee Alliance to bring forward protocol development to the earliest achievable dates. **ACTION: DECC to update SDAG members at its next meeting.**	28.08.13	DECC – Charlotte Middleton	Open
7.3	**Firmware Management** – EUK to consider industry processes for acceptance and deployment of firmware (i.e. processes not involving DCC) **ACTION: EUK to determine the appropriate course of action**	28.08.13	EUK	Open

2. Consolidated Issues Log

2.1. Colin Sawyer introduced this item and requested that the Group went through the log to comment on those that DECC have proposed to close and propose any new issues to be added.

2.2. The Group discussed the consolidated issues log and a revised version is to be distributed before the next SDAG meeting on 28 August. **ACTION: DECC**

3. Feedback from Workshops

Hand-Held Terminals

3.1. Mark Robins introduced feedback from the hand held terminal workshop held on 5th July. The first six slides summarised points discussed at the workshop and covered in the minutes that were issued on the 17th July to attendees.

3.2. There was a short discussion on the 'No Wan' slide. EDF proposed that DCC should maintain a register of aborted installs due to no WAN. DECC suggested that this item could be added to a log of possible DSP changes which will be handed to the DCC.

3.3. DECC confirmed that the HHT is a Type 2 device. Messages exchanged with the Communications Hub would be secured and encrypted using standard ZigBee credentials.

3.4. The Group were then taken through the 3 options for enabling inter-PAN in the Communications Hub.

3.4.1. Option 1: Comms Hub enables Inter-PAN for (60) minutes from a power-up, and keeps Inter-PAN alive whilst in use

During maintenance visit, installer power-cycles Comms Hub, and then re-seals

No changes to SMETS required; detail captured in GBCS

3.4.2. Option 2: Inter-PAN enabled on Comms Hub over ZigBee by trusted device

ESME and GSME trusted to send this command

PIN-protected menu required on ESME + GSME user

Changes to SMETS required; detail captured in GBCS

3.4.3. Option 3: Inter-PAN enabled without timeout if WAN is not present

Assuming good WAN coverage, this will only apply to a small % of Comms Hubs

Allows comms without entering the property in these cases

Changes to CHTS required; detail captured in GBCS

3.5. Some members noted that a particular advantage of option 3 was that it would allow a meter operator to perform configuration of the smart metering equipment without the need to enter the property (subject to HAN propagation). However several risks were noted with this option:

- An attacker can repeatedly attempt to connect to the CH, as a Denial of Service (DOS), or brute-force attack
- If connecting to CH is successful the attacker can attempt to send commands to the SME
- If connecting to CH is successful the attacker can continuously send commands to keep the equipment occupied, and prevent other ZigBee HAN comms
- If connecting to CH is successful the attacker can continuously send commands to run down GSME battery

3.6. No conclusions were drawn in relation to the three options and it was agreed that DECC would send out a set of questions in relation to the above to SDAG members to respond with their detailed comments by 2nd Aug. **ACTION: DECC** Mark Robins

Globally Unique IDs

3.7. Ed Williams introduced feedback from the GUID workshop held on 17th July. There is a requirement that each device within GB Smart Metering has an ID that uniquely identifies it. Four options had been discussed at the workshop:

3.7.1. Use of existing Electricity Meter Serial Number (MSN) scheme

3.7.2. An additional identifier, such as EUI-64

3.7.3. New MSN scheme, combining aspects of MSN and EUI to mitigate any impact of a new numbering scheme replacing the current MSN

3.7.4. Use of existing Electricity MSN scheme AND emerging Gas MSN scheme

3.8 The workshop attendees broadly agreed to the use of an EUI-64 identifier. Some issues had been noted and DECC agreed that these would have to be cleared prior to finalising the inclusion of EUI-64.

4. Transition approach

4.1. Colin Sawyer provided the Group with an update of the work being undertaken under the Transition Working Group.

5. SMETS 2 Update

5.1. Colin Sawyer reminded the Group that DECC had issued the updated Change Log on 17th June. This log reflected comments on SMETS2 received from stakeholders and changes indicated in the log would be included in a revised SMETS2 draft, due at the end of August.

5.2. In advance of the meeting a list had been circulated of further 'internal changes'. This list reflected changes identified by the DECC team and generally arose as a result of decisions published in the SMETS2 Response (part 2) or of errors or inconsistencies identified in the document. Members of the Group raised no particular comments but requested clarification of Item 4 on the list. **ACTION: DECC**

6. SMKI Process Impacts

6.1. Mike Bennett presented this item. Slide 1 highlighted the identified E2E Security Requirements

6.1.1. Requirement to obtain Bindings for a meter's public key material (Which have to be held on the device)

6.1.2. Requirement to regenerate device private keying material within 7 days of commissioning

6.1.3. Requirement to remotely read public certificates held on a device (For validation)

6.1.4. Requirement to validate root and recovery keys (approach and processes are in development).

6.2 The Group discussed the possible requirement to make item 6.1.2 above a regulatory obligation or the option of requesting the DCC to send reminders and/or suspend service following a period of non-compliance. The majority agreed that it was in the suppliers' self-interest to comply thus negating the need to regulate.

6.3 Public binding at manufacture slide, comments:

6.3.1 When the meter is manufactured, it will hold private material on it, thus suppliers would need to match the public to the private material.

6.3.2 When a meter is not procured directly by a supplier (e.g. by a MOP) then the party placing the order would be responsible for managing the initial provisioning of credentials. The AMO representatives raised concerns with this approach and agreed to discuss the issue outside of the meeting. **ACTION: DECC/AMO**

6.3.3 Care would be required in design of manufacturing processes as manufacturers would need to work closely with suppliers/others in order to generate the required keys.

6.4 Remote reading of public security credentials slide, discussion centred on the point:

- Mechanism (Service Request) to retrieve a Meter's public certificate (held on meter) – Concerns were raised as to what would happen if the public key was not available, e.g. the supplier had ceased trading? Special procedures would need to be defined. **ACTION: DECC** to investigate recovery and SoLR processes.

7. AOB

7.1. **Contractor's switch in electricity meters** - Alastair Manson requested this be raised.

7.1.1. The concept of including an isolation switch in electricity meters for the use of electrical contractors was considered at an earlier stage of the programme – EUK suggested that it is a feature that some suppliers wish to deploy in some of their smart meters.

7.1.2. Alistair reported that there had been some desire for this feature to be included as a SMETS ESME variant.

- DECC confirmed that SMETS presents a minimum set of requirements and that additional features, such as an isolation switch, may be deployed. EUK requested that suppliers be provided with data (via DCC) that would allow them to recognise the presence of the contractor's switch in meters: this would be particularly useful in relation to meters they acquire through CoS.
- Further, EUK requested that the DCC User Gateway be modified to include alerts associated with the contractor's switch (e.g. a specific tamper alert if the contactor switch has a separate terminal cover).

7.1.3. Colin Sawyer advised the meeting that the requirements referred to in 7.1.2 would represent changes to the scope of the DSP contract and that there is no intention to introduce such changes prior to contract award. Change requests will be considered by the relevant Transitional governance group.

7.1.4. Colin noted that the first requirement (identifying the presence of a contractor's switch) could, alternatively, be implemented in the registration system. MRA parties would be free to raise this change through the MRA Mods Procedure.

7.2 **ZigBee development** – DECC informed the Group that it was working with ZigBee Alliance to review their timetable in order to assess deliverability by April/May 2014 and encouraged members to influence the Alliance. **ACTION: DECC to update SDAG members at its next meeting.**

7.3 **Firmware management** – there was discussion on issues raised at the Firmware Workshop, particularly the processes for managing the acceptance and deployment of firmware. DECC confirmed that DCC-related activities had been finalised but recognised that industry might wish to consider whether coordinated processes are required for activities involving manufacturers, MAPs and suppliers. **ACTION: EUK to consider the need for common processes.**

8. Date of Next Meeting

8.1. 28th August 10 a.m. at the BIS Conference Centre, 1 Victoria Street.