

ERA 2008 HAN Evaluation Exercise & Next Steps

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HAN Workshop 19.11.10

Evaluating HAN Technologies

- Throughout 2008, the ERA SRSM project undertook an exercise to address the requirement for a smart metering HAN
- The Local Communications Development Group was established in February 2008 and published its' findings in December 2008.
- It held six expert group meetings, with over 40 attendees at each, and had an extended international membership of over 130

Process

- The group discussed and documented requirements and issues relating to the HAN
- Undertook a collaborative desktop evaluation of 6 alternative HAN solution technologies
- Agreed over 50 evaluation criteria, and the best method to test or assess these
- Undertook a verbal/desktop assessment of six candidate HAN solution technologies

Desktop Evaluation

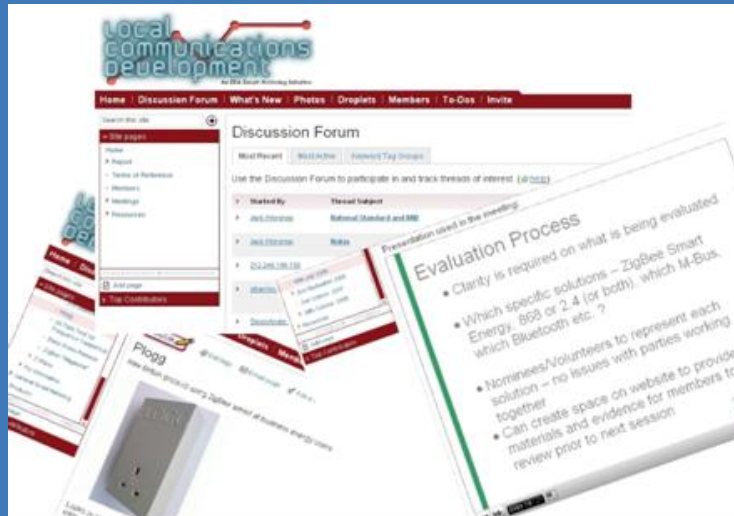


- The group found that low power radio solutions were generally technically capable of meeting HAN requirements – but claims needed to be tested
- All solutions had some gaps – mainly in the application layer for specific GB requirements

...	?	Y	G	Y	G
...concrete, meter cabinets, meter rooms etc.)	?	Y	G	Y	G
Low vulnerability to signal interference	?	Y	G	Y	G
Ability to cope with signal interference	?	Y	G	Y	G
Blocking Immunity in transceiver	?	Y	G	Y	G
6.5 Strength/resilience of methods used	?	Y	G	Y	G
6.1 Ability to use successive keys	?	Y	G	Y	G

Documentation

- All of the work of the ERA Local Communications Development Group is online
- www.srsmlocalcomms.wetpaint.com



- Full 150 page report, and a 12 page summary
- Also on ERA website
- <http://www.energy-retail.org.uk/smartmeters.html>

Next Steps

- The ERA would recommend NOT undertaking another desktop evaluation or RFI exercise – the HAN is already on the critical path
- ERA is feeding in the requirements and issues into SG1 and SG3 discussions
- The evaluation criteria and recommendations for testing have been passed to the programme for review and update
- Discussions today will help clarify the next steps

Next Steps

- Example drawn from Evaluation Criteria passed to the programme

Ref	Criteria	Weighting	Field Test	Lab Test	Panel Review	Cannot Test
	Management ¹					
3.2	Support for battery powered nodes, but also for energy smart metering application (e.g. data refreshes in minutes rather than hours/days for end nodes)	Must Have	Y	Y		
3.3	Battery powered nodes should not be able to be configured as bridges or routers	2				
4.1	Transmission speed – effective data throughput in kbps per	2	Y	Y		

Next Steps

- Draft of High Level Next Steps for the Programme

SMDG SG1 - Agree HAN Process

Update Requirements & Use Cases

Review & Update Evaluation Criteria

SMDG SG3 - Define HAN Testing

Design Field Trials

Design Panel Review

Design Laboratory Testing

SMDG SG? - Review HAN Results

Publish Findings & Recommendations

Update Detailed Design Documentation

Market - Implement HAN Technologies

Update Standards for GB (if req)

Deliver Interoperable Products

Next Steps

- Join Simon and Peter in Break Out Room A after lunch to discuss the Programme plans for the next steps on HAN
 - Refining the evaluation criteria
 - Reviewing the potential techniques to assess HAN solutions
 - Experience of similar previous exercises
 - Supporting and participating in the next stage