

SCSC Service Assurance Working Group - Meeting 48

23rd March 2023, Zoom

Minutes

Attendees

Mike Parsons (MP) – AAIP, John Govey (JG) – Siemens Mobility, James Catmur (JC) – JC and Associates Ltd, Kevin King (KK) – BAE Systems, Robin Cook (RC) – Thales, Andy Whitehead (AW) – Consultant, Mike Sleath (MS) – Ebeni

Apologies

Mark Wraith (MW) – Atkins, Davy Pisoort (DP) – KU Leuven, Simon Griffiths (SG) – Leonardo, Miren Illarramendi (MI) – Mondragon University, Daniel Smith (DS) – BAE Systems, Jeremy Hubbard (JH) - Sys-Safe

Agenda

1. SSS'23 Review
2. Smart motorways
3. Decomposing Large Services
4. Service Science
5. Alternative Fuels
6. Service Assurance Hazard Labels
7. Level Crossings Journal Paper Update
8. SAITN
9. Actions Status
10. AOB
11. Next Meeting

Items are presented in the minutes in the order discussed in the meeting, rather than as per the Agenda. The order on the day was optimised to reflect attendees and action progression. The meeting slides are available here: https://scsc.uk/file/gs/Meeting_47_Slides_v1-1510-1547.pptx

NOTE: All comments or opinions in these notes are attributed only to individual attendees of the meeting, not to their respective organisations.

*[Actions are presented in the form **N.Mx** where **N** is the meeting number, **M** a reference number for the action raised in that meeting and **x** is an optional letter that differentiates related actions arising from the same discussion point].*

1. SSS'23 Review

The group thought that SSS'23 had gone really well: it was enjoyable and covered different sectors and safety regimes. There was a good SAWG representation with:

- a) a new version of the service assurance guidance (<https://scsc.uk/scsc-156C>),
- b) a poster (<https://scsc.uk/re898.6:1> , <https://scsc.uk/re898.55:1>) and
- c) a presentation (<https://scsc.uk/re898.59:1> , <https://scsc.uk/re898.58:1>).

Following on from the Mont Blanc tunnel talk, there was a discussion on future tunnels (Stonehenge, Lower Thames Crossing) which JC explained had both been delayed. The new tunnels for HS2 were mentioned. The Hindhead (A3) tunnel was discussed, and JC explained that the majority of accidents occurring were not in the tunnel itself, but at the North end portal going South. This requires further explanation.

The new version of the guidance document page has been accessed 198 times and the guidance itself has been downloaded 48 times, i.e. more than once a day.

2. Smart Motorways

There was a long discussion about some of the latest problems reported on Smart motorways:

<https://www.bbc.co.uk/news/uk-england-64732376>

<https://eandt.theiet.org/content/articles/2023/03/letters-to-the-editor-volume-18-issue-3>

<https://www.bbc.co.uk/news/uk-england-south-yorkshire-63946021>

These could be viewed as a failure within the service hierarchy, as suitable requirements should have flowed down to sub-services and subcontractors: note these may not be safety requirements, but could be expressed as availability or other characteristics.

Some possible mitigations were discussed, such as default marking of the left-hand lane as closed if any sort of IT error occurred. JC explained that there were problems with these sort of approaches as (i) people often ignore the signs and (ii) it may cause more congestion and lane-changing, and therefore accidents in other lanes.

It was noted that the Smart motorway IT systems were developed as standard, commercial systems (i.e. as 'SIL 0', not as safety-related or safety-critical). There were contractual and legal reasons behind this, and the underlying assumption that the driver should be in control no matter what the signage says. JC said that waiting on the hard shoulder on a traditional motorway was fraught with risk as many (large) vehicles stray into this due to driver error.

There is a bigger question as how to translate requirements through service hierarchies so as to meet the higher-level requirements. These translations may need to map certain characteristics to other characteristics and there does not appear to be straightforward mapping. [This is related to Wrappers in the guidance.]

3. Decomposing Large Services

RC presented his work on decomposing large services by analysing the failures of the Manston Migrant Processing Centre https://scsc.uk/file/gs/Decomposing_services-1546.pptx

It was thought to be a very interesting example and a case of a pure service, as there is no tangible product - presumably just a decision/classification produced?

The group asked RC to think about the top-level services involved and how they may be decomposed, for example: 'Migrant Processing Service' into 'Ascertain Country of Origin Service / Establish Threat in Home Country Service / Treat Health Conditions / Detention Service/...' etc. There

are presumably several top-level service consumers: the migrants themselves, the UK government and the general public.

Action 48.1 (RC) – Progress the Manston Processing Centre example, highlighting the services involved.

There was a general discussion about the issues this example raised. Some points were that it would be good to have a ‘Chief Engineering Officer’ within government (like the Chief Scientific Officer) [and perhaps also a ‘Chief Service Design Officer’ too].

4. Service Science

An email from DP was presented with various links and references:

Scott McKinnon from Chalmers brought me in contact with Prof. Carine Dominguez-Péry from IAE Grenoble. One of her comments was:

There is a large literature in “service science” since the 2000’s. The book below summarizes the most recent ideas:

Maglio, P. P., Kieliszewski, C. A., Spohrer, J. C., Lyons, K., Patrício, L., & Sawatani, Y. (Eds.). (2019). Handbook of Service Science, Volume II. Cham, Switzerland: Springer International Publishing.

I like the structure of the book: Service experience, Service Systems, Service Ecosystems. Different focus and units of analysis. The service ecosystems approach is the most recent one.

If I Google Service Science, it refers to IBM:

https://en.wikipedia.org/wiki/Service_science,_management_and_engineering

This requires further analysis and investigation.

Action 48.2 (MP) – Research the term ‘Service Ecosystem’ which seems to be relevant to our work.

MS’s useful links on service science were not discussed as he had left the meeting.

There was a discussion about mitigation approaches (and revisits to the Smart Motorway discussion). It was felt that contractors are often put in a difficult position where a client may tell the supplier that there is no safety involved, whereas the supplier can see that there are safety aspects.

MP said that this had been a common situation with earlier companies and projects he had worked for, and a series of approaches ‘Safety Patterns’ had been devised. This work was presented at SSS’10: https://scsc.uk/file/gs/Safety_Project_Patterns_SSS10_Bristol_v0.95-1549.pptx and subsequently developed further.

Action 48.3 (MP) – Send JC the work on safety patterns

5. Alternative Fuels

There was a discussion around AW's communication on the new service issues presented by alternative transport fuels (hydrogen, methane, etc), particularly in tunnels. It was thought that new processes, procedures and skills may be required, and new types of services may be needed.

It was agreed that this topic should be tracked for developments. A paper was referenced [here](#).

6. Service Assurance Hazard Labels

MP mentioned these 'hazard warning labels' for data issues:

<https://datahazards.com/contents/data-hazards.html> which he thought may be translated to a service context, so providing signs for known problems of services where safety might be involved.

Examples might be signs for: 'Warning: Same service supplier used across multiple service provisions', or Warning: SLA for service excludes out-of-hours support'. These could then be represented by clear symbols on signs.

It was felt there may be some value in this but there is a danger of 'signage overload' such as that found at the entry to building sites.

7. Level Crossings Example

JG said work was progressing on the eJournal paper on level crossings. He presented two videos of the level crossing problems at the Canute Road Level Crossing:

<https://www.youtube.com/watch?v=qxP0zsbvzMc> and

<https://www.youtube.com/watch?v=am4HzEIEEvC> (specifically the last 20 seconds of the latter)

8. Service Assurance in the News (SAITN)

MP mentioned these articles which have some relevance to services and safety:

London ambulance staff protection: <https://www.londonambulance.nhs.uk/2022/09/28/protecting-those-who-are-protecting-you-new-safety-measures-for-ambulance-crews/>

E-Scooter charging fires (charging is very much a service):

<https://news.cumbria.gov.uk/News/2021/cfrsescootersafetyadvice.aspx>

Awful hospitals:

<https://www.eadt.co.uk/news/23272729.esneft-chief-executive-nick-hulme-awful-hospitals/>

9. Next Meeting

The next meeting of the SAWG will be 10th May 2023, 3-5pm by Zoom. MP to arrange.

10. AOB

DP asked via email that if we could briefly discuss the idea of the new MSCA Doctoral Network on Safe and Sustainable Services and see if we can get any industrial support through the members of the SAWG. [This was not discussed in the meeting as MP had to go early, but if anybody has any ideas on this please forward to MP.]

11. Actions

Ref	Owner	Description	Status
39.3	MAS	Present the CDH in Healthcare work at next meeting	Ongoing
40.6	AW	Write a new section for Guidance 3.1 on aggregation / fusing of services, to include how overall assurance can be increased by utilisation of multiple services together, including aspects such as widespread use, multiple sensing and diversity (see footnote)	Ongoing
43.3	JG	Map one or more historical accidents on level crossings to the service analysis model to see which services failed in some way	Ongoing
44.2	MS	See what happened to the work streams mentioned in the IBM report	Ongoing
44.3	JG	Start the publication process for the Level Crossing work as an SCSC eJournal paper	Ongoing
44.4	AW/MP	Think about how the guidance could be used earlier in the development lifecycle	Ongoing
44.5	MP	Propose clarification to make either risk-based or severity-based definitions clear and consistent	Ongoing
44.6	JG	Establish what is done in the rail sector in terms of risk / severity	Ongoing
44.7	MP	Cross check approach on risk/severity with the Data Safety Guidance	Ongoing
45.1	MP/KK	Continue researching the commonality and overlap of SMSs with Service Assurance with the aim of producing an SCSC Newsletter article	Ongoing
45.3	RC	Look at ways of decomposing services into more manageable chunks.	Closed
45.4	AW	Raise issue of boundaries of responsibility for Hydrogen trains (for discussion at the next meeting).	Ongoing
46.3	MP	Look through past actions and see what is to be considered for 3.1	Closed
46.4	RD	See if a people expert can be found in Atkins to support the group.	Ongoing
47.1	JC	See if there are any sources (websites, accident reports, etc.) where information on recent incidents in the Mont Blanc tunnel can be found	Ongoing
48.1	RC	Progress the Manston Processing Centre example, highlighting the services involved.	New
48.2	MP	Research the term 'Service Ecosystem' which seems to be relevant to our work.	New
48.3	MP	Send JC the work on safety patterns	New



SAWG

12. Thanks

Thanks to MP for taking the minutes and chairing.