

MINUTES OF THE TWENTY-FIFTH SC-223 PLENARY
MEETING
“Internet Protocol Suite (IPS) and AeroMACS”

DATE: December 4 - 7, 2017

TIME: 9:00 a.m. – 5:00 p.m.

PLACE: RTCA, Inc
1150 18th St NW, Suite 910
Washington, DC 20036

CONTACT: Rebecca Morrison, Program Director
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Attendees:

Name	Role	Affiliation	Note
Aloke Roy	Chairman	Honeywell International, Inc.	
Brent Phillips	DFO	Federal Aviation Administration	
Robert Segers	Member	Federal Aviation Administration	
Rebecca Morrison	Program Director	RTCA, Inc.	
Dongsong Zeng	Secretary	The MITRE Corporation	
Rafael Apaza	Member	NASA	
Kristen Mineck	Member	INMARSAT	
Paul Mettus	Member	LS Technology LLC	
Madhu Niraula	Member	Rockwell Collins, Inc.	
Antonio Correias	Member	Skymanatics	
Bruce Eckstein	Member	Firebird SE LLC	
Stephen Van Trees	Member	Federal Aviation Administration	
Richard Hawkins	Member	WiMAX Forum	Via WebEx
Vaughn Maiolla	Member	International Civil Aviation Organization	Via WebEx
Chris Wargo	Member	Mosaic ATM, Inc.	Via WebEx
Sopheap Ya	Guest	The Boeing Company	Via WebEx

In accordance with the Federal Advisory Committee Act, Brent Phillips, Federal Aviation Administration (FAA), was the Designated Federal Official for this meeting.

AGENDA

1. Welcome, Introductions, Administrative Remarks
2. Review of previous meeting notes and action items
3. Review of Current State of Industry Standards
 - a. ICAO WG-I
 - b. AEEC IPS Sub Committee (next meeting early January),
 - c. EUROCAE WG status
4. Current State of Industry Activities
 - a. SESAR Programs
 - b. ESA IRIS Precursor (Kristen will present IRIS architecture update possibly tomorrow or next meeting)
 - c. Any Other Activities
5. IPS Technical Discussions
 - a. IPS security (AGCS)
 - b. IPS working papers, use cases
 - c. Review of IPS RFC detail Profiles
 - d. Review of IPS profile (walk through)
 - e. Prioritization of additional IETF RFCs for Profiling
6. Any Other Topics of Interest
 - a. TOR update
7. Plans for Next Meetings
8. Review of Action Items and Meeting Summary

Agenda Items 1. Welcome, Introductions, Administrative Remarks

Aloke Roy, Honeywell, welcomed the participants and reviewed the agenda.

In accordance with RTCA policy, Brent Phillips, the designated FAA representative, opened the meeting by reading the following text: “In accordance with the Federal Advisory Committee Act, this Advisory Committee meeting is OPEN TO THE PUBLIC. Notice of the meeting was published in the Federal Register on: March 15, 2016. Attendance is open to the interested public. With the approval of the Chairman, members of public may present oral or written statements at the meeting. Persons wishing to present or obtain information should coordinate with RTCA Program Director – Rebecca Morrison and the Chair – Aloke Roy”

Rebecca Morrison presented the RTCA Proprietary References Policy and Membership Policy.

Agenda Item 2. Review of previous meeting notes and action items

The working group reviewed and approved the of SC-223 P24 meeting minutes, and updated the status of previous action items.

Agenda Item 3. Review of Current State of Industry Standards

3a. ICAO WG-I

Aloke Roy updated the group on the ICAO WG-I/25 meeting, Bangkok, Thailand, November 13-17, 2017.

For IPS security, three ICAO documents, i.e., Doc10090 Manual of Security for aeronautical communications, Doc10094 Manual of the Aeronautical Telecommunication Network (ATN) Secure Dialogue Service, and Doc10095 Manual of Public Key Infrastructure (PKI) Policy for Aeronautical Communications, are planned to be completed by November 2018.

For IPS global mobility, there exist three candidate solutions, i.e., AERO, LISP and Mobile IPv6. The Mobility group developed a set of criteria to select the best global mobility solution.

SC-223 group discussed the three potential global mobility solutions, and reached consensus that the global mobility will be handled by the ground.

Decision 1: RTCA SC-223 scope includes local mobility covering A/G subnet, global mobility involves ground networks which are out of scope. Local mobility involves IPv6 addressing of Air/Ground router and mobile entities as well as mobility across air/ground access subnets. Global mobility solution is implemented by ground network, which is expected to be compatible with the local mobility solution. The local mobility solution proposed by Rockwell Collins was reviewed at SC-223 P24 and was presented to ICAO WG-I mobility subgroup #3 meeting in WP04.

3b. AEEC IPS Sub Committee

The AEEC IPS Sub Committee plans to develop AEEC IPS standards in two steps:

Step 1: 18-month planning activity with five 2-day meetings, potentially involving ICAO, RTCA, EUROCAE, etc. (2015 to 2017); and

Step 2: Standards writing (2017 to 2019).

The ARINC Project Paper 658: Internet Protocol Suite (IPS) for Aeronautical Safety Services – Roadmap Document was approved for publication in 2017.

3c. EUROCAE Working Group

Rebecca Morrison, RTCA, reported that the EUROCAE WG-xxx plans to have the kickoff meeting in the first week of February 2018. The WG-xxx IPS standard TOR is still waiting for the final approval from EUROCAE TAC.

Agenda Item 4. Current State of Industry Activities

4a. SESAR Programs

Antonio Correias, Skymantics (supporting Airtel ATN), added that SESAR, projects 14.2.1 (LDACS spec) and 14.2.4 (FCI architecture) have been started. The FCI architecture project is related to the design of the ATN/IPS architecture. Major advancements include:

- a) An Authentication, Authorization and Accounting (AAA) architecture is under development. How different entities (e.g., ANSP and airlines) authorize different services (e.g. ATC and AOC) is one of the key areas being worked on. A solution with proxy AAA servers was discussed.

- b) The subnetwork architecture including routing functionality and Layer 2/Layer 3 subnetwork interface was discussed.
- c) A custom high-level protocol of link quality monitoring is being developed for ML function. So far, it is only abstract messaging. However, if other COTS solutions (e.g. SNMP) can provide the same functionality, this custom solution may not be needed.

4b. ESA IRIS Precursor

No updates for ESA IRIS precursor.

4c. Any Other Activities

FCC-FAA Spectrum Telecon on Potential Frequency Plan for AMT and AeroMACS.

The group participated a two-hour FCC-FAA spectrum telecon and listened in the discussion on the compatibility and potential frequency plan of the AeroMACS and AMT applications. No decision was made during the telecon.

Agenda Item 5. IPS Technical Discussions

5a. IPS security

Robert Segers, FAA, presented “Cybersecurity for global aviation” slides to the group. The presentation explains the ICAO trust framework and trust bridge architecture, and emphasizes the idea of no region left behind.

Dongsong Zeng, The MITRE Corporation, brought up “Preliminary Security Considerations” slides authored by Mathias Michalski, Airbus, that was presented to AEEC AGCS telecon on November 2017. The presentation shows that Airbus prefers two layers of security, i.e., subnetwork authentication plus end-to-end authentication.

Action Item P25-2: Madhu Niraula to draft security and mobility use case whitepaper and RFC detail profiles.

Action Item P25-3: Robert Segers to define security requirements and investigate FAA special conditions and share with SC-223.

5b. IPS working papers, use cases

Domain Name System (DNS) and Simple Name Lookup

The group discussed the commercial-of-the-shelf DNS use case and requirements drafted by Rafael Apaza and the custom simple name lookup proposed by Madhu Niraula.

Action Item P25-1: Madhu Niraula to draft simple name lookup use case considerations for FANS over IPS and B2 over IPS in the format ready to be incorporated in the Profile.

Action Item P25-4: Robert Segers to analyze the DNS security RFCs and if needed generate the detailed RFC profiles.

Action Item P25-5: Alope Roy to develop port filtering and firewall rules for TCP/UDP ports.

Action Item P25-6: Rafael Apaza to investigate additional DNS fields needed for simple name lookup, and RFC detail profiles.

IPS Multilink

Antonio Correas, Skymantics, presented the updated IPS multilink use case and functional requirements whitepaper and “Multilink: queuing and forwarding” slides.

The group identified that ATN Dialogue Service already has data packet acknowledgement and retry mechanism, So the multilink does not need to do it again. This simplifies the design of ML. Now the main functions of multilink include link quality monitoring and link selection. The link selection criteria were discussed and refined by the group.

Decision 2: For emergency messages, it is up to application layer (ICAO OPLINK) to define the corresponding traffic class for broadcasting over multilink.

Action Item P25-8: Antonio Correas to finish multilink use case and requirements.

Action Item P25-9: Antonio Correas and Alope Roy to work on multicast use case (uplink/downlink) and RFCs.

5c. Review of IPS RFC detail Profiles

The group reviewed the detail profiles of RFC 5795 Robust Header Compression, RFC 2597 Assured Forwarding PHB Group, RFC 4861 Neighbor Discovery for IP version 6, and RFC4443 ICMPv6.

Decision 3: Approved incorporation of RFC5795, 2597, 4861, and 4443 detail profiles into the IPS Profile.

The group started reviewing the detail profile of RFC 8200 IPv6 during the meeting and decided to continue to review/comment it after the meeting.

Action Item P25-11: Group to review the current RFC 8200 detail profile and provide comments to Paul Mettus (starting from item 9 in Section 4.6).

5.d Review of IPS Profile (walk through)

The group went through the latest IPS Profile draft.

Action Item P25-7: All members to review Section 3 Functional Requirements of the draft Profile.

5.e Prioritization of additional IETF RFCs for Profiling

Action Item P25-10: Dongsong Zeng and Madhu Niraula to investigate the initial discovery for each subnetwork prefix and default gateway (wait for RC IMS paper).

Agenda Item 6. Any Other Topics of Interest

No other topics of interest were brought up during the meeting.

Agenda Item 7. Plans for Next Meetings

The P26 meeting is scheduled from March 5-9, 2018 (Possibly Rockwell Collins, Melbourne, FL).

March meeting and June meeting to be joint meetings with EUROCAE WG, one in US and one in Europe.

Agenda Item 8. Review of Action Items and Meeting Summary

Dongsong Zeng, MITRE, presented the out-briefing (SC-223 IPS Meeting OutBriefing_December_2017.pptx) which summarizes all the decisions and action items that were made during this meeting. The work group reviewed and agreed on the out-briefing.

Agenda Item 9. Adjourn

The meeting adjourned around 5:00pm, Thursday, December 7, 2017.

List of Action Items

Action Item #	Action Content	Responsible	Due Date	Status
P18-1	Add ARINC658, DO-350a, DO-351a, DO-352a, and DO-353a to the initial documents in TOR	Aloke Roy	August 17, 2016	Closed - 11/2016 8/2016 - Draft done, need to present to next PMC
P18-2	Inform us about SESAR IPS related projects	Antonio Correias	August 17, 2016	Closed - 11/2016
P18-3	Check with FAA about GA participation in IPS data communication and FAA data communication safety and security assessment and requirements	Brent Phillips	August 17, 2016	Open 8/2016 - AeroMACS security was just completed, IPS security will leverage that later. 2/2017 – Keep open 5/2/2017 – Keep open, SC-216 draft document says single layer security may be adequate. 8/21/2017 – Keep open. 10/23/2017 – Closed. IPS can be used by GA if it provides business benefits, same as air transport aircraft.
P18-4	Provide communication related system level safety analyses	Bruce Eckstein	August 17, 2016	Closed 8/2016 - Reference to DO-350a for operational safety analysis will satisfy the intent of this action item. SSA-lite was a limited report, not to be used as system safety analysis.
P18-5	Conduct the safety analysis (IPS use for safety and regularity of flight domain) for IPS and	David Robinson,	August 17, 2016	Open 8/2016 - Start with safety assessment, then decide DAL.

	provide the Design Assurance Level (DAL) for IPS	Brent Phillips, FAA		2/2017 – Open. 5/2/2017 – Not aircraft certification office responsibility, David to check with UAS. 8/21/2017 – keep open. 10/23/2017 – Keep open. Data Comm Seg 2 requires security provisions. UAS C2 will require security (mutual authentication and integrity are required, encryption is optional). See action item P24-4 12/4/17 – Closed. Refer to RPAS (SC-228) safety assessment and network availability requirement to derive the IPS safety requirements because RPAS C2 would be the most stringent use case for IPS. SC-228 will provide safety/security inputs in the next SC-223 March meeting.
P18-6	Inform ICAO WG-I about ICAO Doc9896 Section 2.2 Link Layer Requirements, in which interface requirements should not be local issues	Aloke Roy	Next WG-I meeting in May 2016	Open 8/2016 - Will be presented at December meeting 2/2017 - Closed
P18-7	Generate a work sheet of RFC list	Dongsong Zeng	August 17, 2016	Closed - 8/2016
P18-8	Check with SC-206 for the needs of IP services like FTP, Telnet, SNMP, etc.	Aloke Roy	August 17, 2016	Open 8/2016 - Will start a new ISRA with SC-206 2/2017 – the formal ISRA should be developed by SC-206 if this is needed. 5/2/2017 – CLOSED. Checked with A/G SWIM, no IP service needs.
P18-9	Check whether RFC 2488 Enhancing TCP over Satellite Channels is needed by IPS	Danny Bharj and David Robinson	August 17, 2016	Open 2/2017 - Inmarsat is looking at the draft from David. Boeing is proposing an updated UDP to ICAO WG-I. 5/2/2017 - CLOSED
P18-10	Continue coordinating with EUROCAE about global harmonization and EUROCAE participation in IPS standardization	Aloke Roy and Brent Phillips	August 17, 2016	Open 8/2016 - On going 11/2016 - On going 2/2017 – EUROCAE is waiting for AEEC IPS roadmap completed. 5/2/2017 – CLOSED. AEEC road will not complete until Oct 2017, we decided to proceed with SC-223 plan.
P18-11	Bring the TOR schedule modification request to next PMC for approval	Aloke Roy	Next PMC meeting in June 2016	Closed – 11/2016 8/2016 – Will present to September meeting

P18-12	Reach out to NIST for the latest version of USGv6 on the profile for IPv6 in US Government	Brent Phillips	August 17, 2016	Open 8/2016 - On going 2/2017 – Closed.
P18-13	Identify any other profiles that can be shared in the group	All SC-223 members	August 17, 2016	Open 11/2016 - On going 2/2017 – Closed. Company profiles are not releasable.
P18-14	Draft a working paper for ICAO WG-I on the scope and function of IPS based on USGv6_v1 structure	Aloke Roy	August 17, 2016	Open 8/2016 - next WG-I meeting in December 2/2017 – Closed.
P18-15	Coordinate with SC-222 about SATCOM providers' participation	Aloke Roy and David Robinson	August 17, 2016	Closed 8/2016 - Ann Heinke will participate SC-223
P18-16	Members are invited to develop profiles for RFCs that are within the scope and bring to the next meeting as a strawman proposal	All SC-223 members	August 17, 2016	Closed - 8/2016
P18-17	Develop initial draft profile for RFC 768 User Datagram Protocol, August 1980	Dongsong Zeng	August 17, 2016	Closed - 8/2016
P18-18	Develop initial draft profile for RFC 791 Internet Protocol	Paul Mettus and Aloke Roy	August 17, 2016	Closed - 8/2016
P18-19	Develop initial draft profile for RFC 793 Transmission Control Protocol (TCP), September 1981	Bruce Eckstein and Antonio Correas	August 17, 2016	Closed - 8/2016
P19-1	Review the draft RFC profiles and provide comments before next meeting	All members	November 8, 2016	11/2016 - On going 2/2017 – on going 5/2/2017 – CLOSED.
P19-2	Identify IPv6 functions and corresponding RFCs, on the basis of the Appendix C: Requirements Summary Table in the file <code>disr_ipv6_profile_version_6_july_2011.pdf</code> , with consideration of NIST USGv6 v1 document and RFC6434. Task group reports findings from DoD IPv6 Profile at the next telecon.	Paul Mettus, Antonio Correas, Madhu Niraula, and Dongsong Zeng	November 8, 2016	Closed – 11/2016
P19-3	Restructure the workspace to set up working folder and final folder	Dongsong Zeng and Rebecca Morrison	November 8, 2016	Closed – 11/2016
P19-4	Explore FTI documents on IPv6 profiles and test procedures	FAA, David Robinson and Brent Phillips	November 8, 2016	On going 2/2017 – David is working on the NDA with FTI. On going. 5/2/2017 – on going. 8/21/2017 – new FTI manager selected. Brent reached out to Andy. Material received, working on approval to release. Keep open. 10/23/2017 – Closed.
P19-5	From SC-223 perspective, there is no need to develop ISRA with SC-222. SC-223 TOR requires definition of the subnet user interface and generic subnetwork performance requirements. It is not the responsibility of SC-	Aloke Roy	November 8, 2016	Closed – 11/2016

	223 to allocate RCTP to each specific subnetwork.			
P20-1	Investigate Cisco RFC implementation for IP over SATCOM	Rafael Apaza and David Robinson	Feb 28, 2017	2/2017 – on going. 5/2/2017 – Nothing special identified in current SATCOM trials. Ongoing. 8/21/2017 – keep open 10/23/2017 – Closed. IPS will define a standard interface.
P20-2	Check with FAA infrastructure people about how to use A/G capabilities of IPS. Would FAA use the IPS Profiles in the infrastructure procurement?	Aloke Roy and Brent Phillips (Andy Isaksen)	Feb 28, 2017	2/2017 – Open 5/2/2017 – Keep open. Would FTI 2 refer to IPS Profiles? 8/21/2017 – keep open 10/23/2017 – Closed. They can use the same IPS profiles if necessary, additional RFCs can be specified for G/G.
P20-3	Draft initial high-level diagram of a generic network architecture for IPS	Madhu Niraula	Feb 28, 2017	2/2017 – Closed. Feb 28 review, and will be available on the workspace.
P20-4	Add notes to elaborate the required RFCs	Tiger team	Feb 28, 2017	2/2017 – Closed.
P20-5	Expand the high-level profile for IPS	Tiger Team	Feb 28, 2017	2/2017 – Closed.
P20-6	Present the updated TOR to PMC	Brent Phillips	Feb 28, 2017	2/2017 – Closed.
P20-7	Present a working paper to WG-I with RFC recommendations and profile for RFC2460 and RFC2474	Aloke Roy and Dongsong Zeng	Feb 28, 2017	2/2017 – Closed.
P20-8	Present Gap analysis comments to AEEC IPS	Brent Phillips and Dongsong Zeng	Feb 28, 2017	2/2017 – Closed.
P20-9	Develop use case based on existing vulnerability analysis for FTI and AeroMACS	David Robinson	Feb 28, 2017	2/2017 – On going. 5/2/2017 – keep open. 8/21/2017 – keep open. 10/23/2017 – Closed. See action item P24-4.
P21-1	Add RFC 7296, 7427, 7670 1034, 1035, 1123, 2181 to high-level profile.	Dongsong Zeng	May 2, 2018	5/2/2017 – CLOSED
P21-2	Draft detail profiles for RFC 2460, 5795, 6846, 5225, 3095, and 4815.	Paul Mettus	May 2, 2018	5/2/2017 – Keep open 8/21/2017 – in progress 10/23/2017 - Keep open 12/4/17 – Keep open
P21-3	Draft detail profiles for RFC 4443, and 4861.	Madhu Niraula	May 2, 2018	5/2/2017 – CLOSED.
P21-4	Draft detail profiles for RFC 4862, 4429, 4291, 2474, 2475, 2597, and 3246.	Aloke Roy	May 2, 2018	5/2/2017 – keep open 8/21/2017 – In progress. 10/23/2017 – In progress 12/4/17 – Keep open
P21-5	Refine detail profiles for RFC 2464, 5175, and 768.	Dongsong Zeng	May 2, 2018	5/2/2017 – CLOSED.
P21-6	RFC 3411, 3412, 3413 (SNMP low priority) to be assigned.	All members	May 2, 2018	5/2/2017 – keep open 8/21/2017 – keep open

				10/23/2017 – In progress 12/4/17 – Keep open, low priority
P21-7	Draft detail profiles for RFC 1151 (RDP), and 7542 (NAI).	Antonio Correas	May 2, 2018	5/2/2017 – CLOSED
P21-8	Initiate the IPS system overview and use cases	Aloke Roy, Rafael Apaza, Antonio Correas and Dongsong Zeng	May 2, 2018	5/2/2017 – in progress 8/21/2017 – in progress 10/23/2017 – Closed and subject to review.
P21-9	Merge the two high-level profiles and draft the working paper for next WG-I meeting	Dongsong Zeng	May 2, 2018	5/2/2017 – CLOSED
P21-10	Investigate the tradeoffs of SCTP, RDP, UDP and TCP.	Dongsong Zeng and Antonio Correas	May 2, 2018	5/2/2017 – CLOSED
P21-11	Identify DNS related RFCs and develop use cases.	Rafael Apaza	May 2, 2018	5/2/2017 – keep open. 8/21/2017 – Closed
P22-1	Develop DNS use case	Rafael Apaza	August 21, 2017	8/21/2017 – Closed, subject to group review.
P22-2	Develop general connection establishment, data flow and mobility use case	Madhu Niraula	August 21, 2017	8/21/2017 – keep open 10/23/2017 – In progress 12/4/17 – Closed.
P22-3	Develop general security use case	Madhu Niraula	August 21, 2017	8/21/2017 – keep open 10/23/2017 – In progress 12/4/17 – Keep open
P22-4	Develop multi-link use case	Antonio Correas and Dongsong Zeng	August 21, 2017	8/21/2017 – Closed, subject to group review.
P22-5	Generate mapping table between WG-I requirements and derive requirements to identify gaps	Aloke Roy	August 21, 2017	8/21/2017 – Closed, overtaken by events. We will address it through use cases development
P22-6	Develop initial Profile and MOPS outline	Aloke Roy	August 21, 2017	8/21/2017 – Closed. Profile draft is done, MOPS outline can be deferred to later time.
P22-7	Place/organize the approved profiles on the work space	Dongsong Zeng	August 21, 2017	8/21/2017 – Closed.
P23-1	Explore subnetwork point of attachment (SNPA) addresses for aircraft.	Aloke Roy	October 23, 2017	10/23/2017 – Closed.
P23-2	Explore how many subnets typical DSPs have.	Madhu Niraula	October 23, 2017	10/23/2017 – Closed.
P23-3	Explore how many subnets FAA enterprise has.	Brent Phillips	October 23, 2017	10/23/2017 – In progress 12/4/17 – Closed. Rob Segers - for aviation interop only certain element of FAA network will be exposed. For those elements, 64 subnets will be more than adequate. This strategy might be applicable to other ANSPs.
P23-4	Explore how many subnets PAN European enterprise has.	Danny Bharj	October 23, 2017	10/23/2017 – In progress 12/4/17 – Closed. Refer to ECDL WP3 form CP WG-I/25.

P23-5	Review what is available in the IETF for multilink.	Antonio Correias, Madhu Niraula, Dongsong Zeng	October 23, 2017	10/23/2017 – Closed
P23-6	Flesh out the IPS CONOPS text.	Dongsong Zeng	October 23, 2017	10/23/2017 – Closed
P23-7	Investigate the CRCs of ROHC at system level.	Aloke Roy	October 23, 2017	10/23/2017 – In progress 12/4/17 – Keep open
P23-8	Review the existing RFC detail profiles for 5795, 4861, 2597, 3260, 2474, 3246 and provide comments before next telecon.	All member	October 23, 2017	10/23/2017 – In progress 12/4/17 – Closed and will be subject to document walk through.
P23-9	Identify what criteria are needed for link selection.	Antonio Correias	October 23, 2017	10/23/2017 – Closed
P23-10	Generate a whitepaper for the need for airborne router.	Madhu Niraula	October 23, 2017	10/23/2017 – Closed.
P24-1	Draft the simple name lookup provision	Madhu Niraula	December 4, 2017	12/4/17 – Closed and to be discussed.
P24-2	Compare the difference between RFC 8200 and RFC 2460, and recommend profile update	Paul Mettus	December 4, 2017	12/4/17 – Closed and to be discussed.
P24-3	Draft working paper to ICAO WG-I on the use of unique aircraft routing prefix mapped to mobility service provider for route determination. The ground entities use normal routing protocols to propagate the path information. This is an alternate solution to AERO, ground LISP and mobile IPv6	Madhu Niraula	December 4, 2017	12/4/17 – Closed
P24-4	Provide safety/security requirements for both data and control messages	Robert Segers	December 4, 2017	12/4/17 – Keep open
P24-5	Provide link layer security white paper to Rob	Madhu Niraula	December 4, 2017	12/4/17 – Keep open
P24-6	Provide CONOPS and DNS to Rich for incorporation to IPS profile draft	Dongsong Zeng	December 4, 2017	12/4/17 – Keep open
P24-7	Provide link selection criteria specifying which are optional and which are required	Antonio Correias	December 4, 2017	12/4/17 – Closed and to be discussed
P24-8	Provide a concept scheme showing multilink management of packet queuing and forwarding	Antonio Correias	December 4, 2017	12/4/17 – Closed and to be discussed
P24-9	Analyze IP multicast over multilink for emergency messages	Antonio Correias	December 4, 2017	12/4/17 – Closed and to be discussed
P24-10	Update profile schedule to the PMC	Aloke Roy and Brent Phillips	December 4, 2017	12/4/17 – Keep open.
P25-1	Draft simple name lookup use case considerations for FANS over IPS and B2 over IPS in the format ready to be incorporated in the Profile	Madhu Niraula	March 5, 2018	
P25-2	Draft security and mobility use case whitepaper and RFC detail profiles	Madhu Niraula	March 5, 2018	
P25-3	Define security requirements and investigate FAA special conditions and share with SC-223	Robert Segers	March 5, 2018	
P25-4	Analyze the DNS security RFCs and if needed generate the detailed RFC profiles	Robert Segers	March 5, 2018	
P25-5	develop port filtering and firewall rules for TCP/UDP ports	Aloke Roy	March 5, 2018	

P25-6	Investigate additional DNS fields needed for simple name lookup, and RFC detail profiles	Rafael Apaza	March 5, 2018	
P25-7	Review Section 3 Functional Requirements of the draft Profile	All members	March 5, 2018	
P25-8	Finish multilink use case and requirements	Antonio Correas	March 5, 2018	
P25-9	work on multicast use case (uplink/downlink) and RFCs	Antonio Correas and Alope Roy	March 5, 2018	
P25-10	Investigate the initial discovery for each subnetwork prefix and default gateway (wait for RC IMS paper)	Dongsong Zeng and Madhu Niraula	March 5, 2018	
P25-11	Review the current RFC 8200 detail profile and provide comments to Paul (starting from item 9 in Section 4.6)	All members	March 5, 2018	

-S-
Dongsong Zeng
Secretary

CERTIFIED as a true and accurate summary of the meeting.

- S-
Alope Roy
Chairman