Minutes of the Federal Aviation Administration (FAA) SWIM Industry Collaboration Workshop – SWIM Industry-FAA Team (SWIFT) Meeting #3 May 10, 2018 (9:30 am-4:00 pm)

American Farm Bureau Federation, 600 Maryland Avenue S.W., Suite 1000W (Washington Room), Capital Gallery West, Washington, DC 20024

1. Welcome and Review of Current Tasking

1.1. The third meeting of the Federal Aviation Administration (FAA) – SWIM Industry-FAA Team (SWIFT) was called to order by SWIM SME and Strategist, David Almeida, LS Technologies, on Thursday, May 10, 2018 at 9:30 am.

1.2. Josh Gustin, Group Manager and SWIFT Sponsor opened forum. The meeting was held at the American Farm Bureau Federation, 600 Maryland Avenue, SW, Suite 1000W (Washington Room), Capital Gallery West, Washington, DC 20024. Focus areas for the discussion included:

1.3. Representatives from FAA, American Airlines, Alaska Air, Delta, UPS, Southwest Airlines, Spirit, United, FedEx, Horizon Air, Military USAF, NASA, Mitre, Airlines for America (A4A), Rockwell Collins/ ARINDirect, Sabre Systems, SeaTec, SaabSensis, US/ IBM, Passur, Harris Corporation, Avmet, Thales, LS Technologies, Noblis, IBIZ, Metron Aviation, JMA, airlines, and the public attended. See Appendix A for more information about attendees.

1.4. Joshua Gustin (FAA CNIP Group Manager), Felisa White (FAA SWIFT Fed Lead), Rob Goldman (Delta), Jeri Groce (SWIM Program Manager), David Almeida (LS Technologies, Facilitator) welcomed attendees to the meeting on Thursday morning.

1.5. Opening Comments – Josh (FAA- CINP group Manager):
Created this forum with a few items in mind: Operational context discussion out of NAC. Leverage SWIFT in parallel to use these use cases to understand operational content.

- This forum is for engagement in all FAA data sharing topics.
- Users might be filling in gaps for information, and the goal is to create the tools they need to get the data they need.
- This forum is to enhance aviation.

1.6. Opening Comments - Rob Goldman (Delta):

- This forum is important exchange of dialogue. The original focus was the operational context of data and connecting the value of the data to airline business objectives.
- These conversations are going on in TPP, and they are important to have as an industry. The FAA TFDM will be producing times. Operators will have to use these times to manage flights. Discussions in this room will help bridge the gap.
- Today, we need to figure out what next steps look like.

2. Review of SWIM Information Services Roadmap (To correspond with Slide 4)

2.1. Reviewed Roadmap detailing releases of new information services and updates to existing information services.

2.1.1. Reviewed products coming up – NWP, STDDS Ph2, TFDM 2021 (surface data through STDDS).

2.1.2. Segment 2 Release 3 (S2R3) is coming online later in the year.

2.1.3. FNS 2.0 NOTAMS system coming online, which will be fixing current issues with dropped messages. On schedule to be addressed in 2018.

2.1.4. DataComm messages to be addressed in 2018.

2.1.5. 2019: Metering information services (TFDM) will provide data industry needs to solve operational issues you have.

2.1.6. 2020: Goal is to ensure multitudes of data available is more tailored through SCDS.

2.2. Introduced SWIFT Webpage being developed. Documentation from these meetings are stored here. *http://connect.lstechllc.com/index.cfm/main/swifthome*

2.3. Discussed Producer Forum:

2.3.1. Producer Forum is for internal FAA producers of information services, but it is important to get SWIFT Participants involved.

2.3.2. SWIM Goal is to establish a process to communicate back what is happening in SWIFT and what is happening in Producer Forums to align the FAA.

2.3.3. Release schedules were discussed in producer forum. That message is important because as they roll out new releases, it will impact industry.

2.3.4. Document Umbrella: instead of having them located haphazardly, it's a goal of SWIM to consolidate documents.

3. Operational Context / Use Case Focus Group and OSD Focus Group

3.1. Operational Context and Use Case Documents

3.1.1. *Presenters: Kathryn Crispin (American Airlines) and Stuart Wilson (LST)*

3.1.2. Document development process – Approach over the next year

3.1.2.1. Monthly meetings (first one 2 weeks ago), last Thursday of every month

3.1.2.2. Will review and close out a document at each meeting, overview current document, preview of next document

3.1.3. Should review order of priority periodically

3.1.3.1. **Action to be Taken**: Will do another survey quarterly to review prioritization

3.1.4. Feedback on TFMS flow due by May 11

3.1.5. Kathryn Crispin: As part of the education and onboarding process for SWIM – have people look at Use Case document

3.1.6. Focus group was developed upon our ask. Important that we participate and provide feedback, because the deliverables are for us to consume and use as we begin to integrate SWIM within our systems.

3.1.6.1. Friday is due date for feedback which will be conducted monthly.

3.1.6.2. Survey is on SWIFT site to take. Due Friday, May 11, 2018.

3.1.6.2.1. Operational Context Document: Breaks down information services providing context on how data is being used.

3.1.6.2.2. Use Case Document: Provides examples on how the data can be used to achieve operational benefits.

3.2. Focus Groups: OSD

Presenter: Alex Murray

3.2.1. Collaborative venue for feedback on OSD capability

3.2.1.1. Primary outcome of second meeting:

-Concerns around message loss

-Visibility of messages dropping

4. SWIFT Special Topics: SWIM Cloud Distribution Service (SCDS) and SWIM Portal

4.1. *SCDS Overview Presenter: Felisa White*

4.1.1. Felisa presented an over of the SCDS system and the features available

4.1.2. The target audience for the SCDS initially does not include the airlines

4.1.3. Examples of users who will use SCDS: NASA, Google, Uber

4.1.4. Team working on this from policy, governance, migration of users, communications, to ensure success.

4.1.5. Doug Harvey, Harris, provided demo of SCDS

4.1.5.1.1.

4.2. SWIM Portal

4.2.1. One stop shop for users to access all things SWIM. Allows for custom layouts.

4.2.2. Felisa – SWIM is focused on user experience with SCDS and user portal to make it easier.

5. Airline Case Study

5.1. Delta Aviation Case Study: Taxi-out, return to gate *(Presenter: Bill Tuck, Delta Operations)*

5.1.1. Problem Statement: During the day, there are periods when more than half LGA demand comes over RBV

5.1.2. Systems ops manager behind the scenes that swap planes, crews, through cancelations

5.1.3. Environment review: issue with ZDC to LGA. Flow at ZDC come from South and we have mile and trail restrictions from LGA tracon. TMA release times are issued for NOVA to get to LGA

5.1.4. Reviewed impacts of delays to customers of Delta.

5.1.5. Goal: Improve effects of high fix demand by proactive management and wider distribution of negative effects of mitigating reroutes and metering.

5.1.6. Case Study Overview of under-delivery caused by en-route strain

5.1.6.1. To avoid MIT/TBFM EDC delay, reroutes are occasional offered

5.1.7. Operational Workflow **(To correspond with Slide 41)**

5.1.7.1. Dispatch 2 hours before and have to look for information. Ground crew loads airplane and there are general restrictions from ZDC to LGA (NY TRACON).

5.1.7.2. As departure time nears, delta doesn't get push back time from TFMS until for wheels up. Have to call TBFM for push back time.

5.2. American Airlines Aviation Case Study: Swap/Substitutions *(Presenter: Tim Niznik, American Airlines)*

5.2.1. Problem Statement: Slot swaps with 7, 8, 9 regional carriers require tight coordination. There are multiple coordinators managing programs, regional coordination and surface (and enroute environment) because it's connected. One area in our ops center is managing the system as a network. It's a pod connecting NAS and mgs flows (regional to mainline, etc.).

5.2.2. Where slot swapping occurs, American is sending info back to TFMS and is put into info we use today. Not in CTOP, but is in ground control/slot management. All electronic, not phone call.

5.2.3. American gets ADL information from TFMS via file 5 minute cycles. That ADL info is in TFM DataFlow streaming similar information. By converting to that, we reduce latency.

5.2.4. Like most carriers, American does slot swap messages via legacy TOC net. When swapping from major hub, American can change every slot assignment to optimize passenger connections, assist crews, etc.

5.2.5. American can change to TFM dataflow with reply functionality to swap. Need to take advantage of that protocol.

5.2.6. American also wants to tap into TBFM data. If we are in a situation when at the gate and pushed back, and get that delay, it implies a certain taxi-out time. When American knows this, they have to buffer it into our time.

5.2.7. Tarmac monitor tracks how long you've been pushed back to track crew and passenger time. If we know pilot calls and has 45 metering delay, that can raise a flag with limitations on flight/crews time. If American's pilots time out, even if 2nd in line for takeoff, that's not a good situation for passengers. If we have the data, we can use that time for additional customer service decisions and optimize it.

5.2.8. A lot of use cases are around TBFM because unlike TFMS, there's no user front end to TBFM. As airlines we find that TFMS data useful is because TFMS exists – we can see real time data but there's no equivalent in TBFM.

5.2.9. American has been more predictive**.** Use a slot swapping tool that consolidates data, FAA data, projects data out (internal and external data and projected at end of day, and we come up with mitigation strategies to reduce impact on crew, passengers and maintenance). So far, so good. It's most heavily used tool at IOC.

5.3. Improved Operational Business Process **(To correspond with Slide 63)**

5.3.1. Trying to improve operational process here, ATC advisors informing AA priorities, which is good because TFMS data comes with TBFM metering delay info and it's informed making much more holistic, informed decision.

5.3.2. If American can get a wheels up metering delay, we can make better decisions. Would be good to see a TBFM function like this. If there's a flight in LGA with 40 min delay, and another has fewer connections, but allows me to swap them.

6. Items to be covered next meeting/topics to consider

6.1. **Action to be Taken**: Send out list of previously-suggested items in the minutes and prioritize 3 to cover

6.2. More about TTP

6.3. Airport CDM perspective

6.4. NEC

6.4.1.NOD Story

6.5. Demos
    6.5.1.NOD
    6.5.2.LL
6.6. Euro SWIM/Global SWIM
6.7. CADENA
6.8. Mediation case study
6.9. Data release policy and status of where we are (“CDM vendor problem”)

Appendix A: SWIM Industry - FAA Team (SWIFT) Meeting #3 – May 10, 2018

David Almeida, LST	Mark Klopfenstein, Avmet	Daniel Torres, FedEx
Matthew Bellinger, SaabSensis	Diana Liang, FAA	Sarasina Tuchen, NASA
Francisco Bermudez, FAA	Steve Link, Harris	Bill Tuck, Delta Air Lines
Joe Bertapelle, JetBlue	Dan London, SaabSensis	Vikas Uberoi, FAA
Stefanie Calabrese, Noblis	Sarah Lowe, Evans	Anuja Verma, Mitre
Eric Cole, FAA	Marcus Lowther, Metron Aviation	Mario Verrett, Military
Tony Creswell, American Airlines	Greg Meadows, Red Cloud Services	Sheila Wentz, Southwest
Kathryn Crispin, American Airlines	Luis Mesen, United	Stuart Wilson, LST
Luke Curns, Noblis	Trin Mitra, RTCA	Jay Zimmer, LST
Todd Emo, Noblis	John Moore, Jeppesen	Carol Shiflett, LST
Kenneth Gochenour, Jeppesen	Alex Murray, Noblis	Mark Parra, Noblis
Shawn Gorman, NASA	Frank Oley, A4A	Tim Niznik, American Airlines
Thomas Green, Rockwell Collins/ARINDirect	Christopher Oswald, ACI-NA	Denny Kriczky, FAA
Jeri Groce, FAA	Bill Sperandio, Southwest	Franco Basti, Thales
Josh Gustin, FAA	Ernie Stellings, NBAA	David Vera, Noblis
Doug Harvey, Harris	Lisa Sullivan, Harris	Rune Duke, AOPA
Ilhan Ince, Passur	Ralph Tamburro, Port Authority Tri State	