

Digital Business Marketplace Phase 5 - Catalyst Project
Smart Airports: Enabling All Travelers to be VIPs
A three-way SDO collaboration: ACI, Digital Twin Consortium & TM Forum

Copenhagen - September 21, 2022. TM Forum's Digital Business Marketplace (DBM) catalyst team today announced that the rapid prototyping proof-of-concept Smart Airports work includes the use and interplay of assets from three SDO's: ACI (Airports Council International), the Digital Twin Consortium (DTC) and TM Forum (TMF).

With travel and tourism being massively impacted during the Covid pandemic, the aviation industry and its airports are looking for ways to re-invent operations. Improving queue management, traveler experience and airport throughput are key areas tackled in DBM's **Smart Airports** initiative for both existing airports, such as Heathrow and new VTOL airports, such as being launched by Urban-Air Ports.

The **Smart Airports multi-faceted** team of experts identified that when combined, the ACI, DTC and TMF standards models provide key data associations enabling airports to transform the average traveler to become a VIP traveler.

- The ACI ACRIS semantic model provides the mapping of flights, baggage, security screening and the “gate” a passenger needs to reach... plus all airport facilities, concessions, everything! even toilets, car parking etc.
- A traveler can “opt-in” into a Smart Airports App by sharing his/her flight details, be provided with way finding guidance to the gate and other services, with automated time management.
- The TMF Get/ recommendation API can interrogate a next best offer recommendation engine where offerings from the ACRIS model could include “security as fast track”, “directions to VIP lounge”, or “send robot bag carrier” – and other options appropriate for a passenger’s opted-in profile.
- Secure “MEC as a Second Horizontal” (another DBM Phase 5 initiative) is used to underpin Smart Airports.
- And the whole experience, the airport configuration, contemplating advanced air transportation, the business offering options and complete airport traveler experience can be modelled and tested – even the mood of the traveler - in a digital twin!

With Smart Airports potential to act as a blueprint for Smart Cities, the team have also captured this in CurateFX to help provide every stakeholder the opportunity to explore how this digitized B2B2C approach can help drive better experiences for the traveler, and efficiencies and new revenue streams for the multiple organisations which can be curated by the digital twin capabilities, and plug-&-played into an airport’s business community securely, leveraging DBM Secure Supply Chain infrastructure and **repeatable pattern** techniques.

DBM’s focus on cross-industry B2B2x requirements has consistently benefited from expert knowledge and leadership from horizontal and vertical industries to shape and define solutions spanning multi-partner sourced B2B2x complex industry 4.0 and Smart X solutions. DBM’s work has been recognized with awards for Innovation (2019), Best Impact (2020) and Standards Contribution (2021). The standards leadership has been a key element in this Phase 5 work.

Segun Alayande, Chair of the ACRIS Semantic Model Community of Practice (ASMCoP), Airports Council International - ACI World said, “this Smart Airports work provides key insights on how leveraging and combining SDO models provides the capabilities and a rapid path for airports to digitally engage their infrastructure and business partners to curate and deliver a streamlined VIP experience for all travelers. This work also provides airports with new techniques from DBM and especially Digital Twins insights, to help improve operations, reduce costs and improve revenues for all partners.”

Dan Isaacs, Chief Technical Officer, Digital Twin Consortium said, “ Intelligent edge-to-cloud services will enable a new wave of applications and capabilities in many industries when joined with 5G, IoT, AI/ML and AR/VR enabling digital twin technologies. Aligning capability framework and models from Digital Twin Consortium, TM Forum, and Airport Council International can lead to a global ecosystem framework for zero-touch solution composability and interoperability. We’re excited that our members are already contributing to this effort and will continue through our new Mobility and Transportation working group, including airports, smart city developers, and other associated member activities within our consortium.”

Aaron Boasman-Patel, Vice President, AI & Customer Experience, TM Forum said, “TM Forum’s standards, such as the Open APIs, were designed to enable ecosystem partnerships between communications service providers, systems integrators and vertical industry specialists, simplifying the creation of end-to-end solutions for media, entertainment, health, cities, energy, banking, industrial manufacturing and airports. The Digital Business Marketplace Catalyst demonstrates how the combination of industry standards from the telecommunications and aviation sectors enables such solutions to be built easily. TM Forum’s Catalyst program accelerates innovation and proves the application of new technologies; in this case together with ACI and DTC the Digital Business Marketplace Catalyst has validated the value of standards in accelerating new outcomes for travelers and for airports’ partner ecosystems.”

DBM’s Phase 5 team spans three initiatives: MEC as a Second Horizontal (Intelligent Edge), Smart Airports, and Frictionless Borders. Phase 5 members are Agile Fractal Grid, Airports Council International, Amazon Web Services, Beyond Now, Cabinet Office/HMG, CloudBlue, Cloudsense, Digital Elite, Digital Twin Consortium, Etisalat, IoT Lab, IOTA, Maxbyte, Mvine, NTT, Rockport Software, STC, Telenor, TELUS, UBlqube, Urban-Air Port, Verizon, Vodafone.

[TM Forum’s Catalyst program](#) provides a unique collaborative environment where organizations from around the globe work together to create solutions to key industry challenges. At Digital Transformation World this year, 32 Catalyst teams are demonstrating their proof-of-concept work.

Over 145 different companies and hundreds of individuals participate in 32 Catalyst projects showcased at Digital Transformation World. The projects included 5G use cases and monetization, IT and network transformation, applications of AI and blockchain, Open APIs, IoT, Digital Ecosystems and more.

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About DBM

DBM is a democratic consortium of organizations who have partnered together under a TM Forum “catalyst project” to explore and productize techniques to enable companies to partner and deliver secure “mass customized” Industry 4.0 and Smart X projects as solutions – “Anything as a Service”. The work has determined and tested the **repeatable patterns** and end-to-end automation enabling:

- the easy selection of complex solutions in a shopping cart, multi-sourced from a “plug-&-play” ecosystem of business partners leveraging **zero touch** techniques (right from shopping cart to activation – password free) to deliver secure trusted endpoints and secure in-life managed solutions for millions of secure endpoints
- enabling Smart X and industry 4.0 outcomes, such as **Smart Manufacturing, Smart Airport, Smart City etc**

DBM has brought together Communication Service Providers, SIs, Cloud players, Hyperscalers, Product & Service players, large and small from multiple industries across the globe. It has demonstrated how Zero Touch and secure frictionless partner collaboration brings a different perspective to address complex industry challenges.

DBM Phase 5 has three related initiatives:

- MEC as a Second Horizontal – extending DBM’s Secure Supply Chain for “Intelligent Edge”.
- Frictionless Borders – a UK HMG led “Ecosystem of Trust” pilot focused on digitizing and accelerating trade.
- Smart Airport – delivering smart traveler experience through SDO model partnering with ACI, DTC & TMForum

DBM Phase 1 - 3 can be found here: <https://dbm4.net/>

DBM Phase 4 can be found here <https://myaccount.tmforum.org/networks/21-0-154/index.html>

About TM Forum

TM Forum is an association of member companies, which include 10 of the world’s top 10 network and communications providers and stretch across 180 countries. Our members tap into each other’s collective experiences and abilities to collaboratively solve complex industry-wide challenges, deploy new services, and create technology breakthroughs to accelerate change.

We help communications service providers (CSPs) and their suppliers to digitally transform and thrive in the digital era. We do this by providing an open, collaborative environment and practical support which enables CSPs and suppliers to rapidly transform their business operations, IT systems and ecosystems to capitalize on the opportunities presented in a rapidly evolving digital world. Follow us on LinkedIn, Twitter, and Facebook.

Learn more at www.tmforum.org.

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