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Sectigo Delivers IoT Management

WiMAX Forum's Aviation Initiative

WiMAX

PARTNER PROFILE:

- Established 2001
- Industry-led, not-for-profit organization
- Eight board members and 48 total members
- Certifies and promotes ubiquity of wireless broadband (IEEE Standard 802.16)
- Works to integrate WiMAX, AeroMACS, and WiGRID technologies across the globe

Overview

Before they could debut a secure communication solution for the aviation market, WiMAX Forum needed to make sure their new AeroMACS (Aeronautical Mobile Airport Communication System) systems could securely manage large-scale distribution around the globe and across agencies over a long period of time.

After settling on a Public Key Infrastructure (PKI) ecosystem to connect devices and secure communications, WiMAX Forum needed a trusted Certificate Authority to provide Internet of Things (IoT) management for AeroMACS.

With a reputation as a global presence with cutting-edge web security solutions, Sectigo teamed up with WiMAX Forum, implementing the IoT Manager to keep AeroMACS secure and functional.

PARTNER TECHNOLOGY:
AeroMACS

- A secure, wireless broadband connectivity solution that coordinates all aviation actors through a Public Key Infrastructure (PKI) ecosystem, utilizing a universally agreed upon broadband communication method
- Securely coordinates thousands of devices at any given time across the planet
- Scalable, standarized, global, and adaptable to stay ahead of security trends across markets

SECTIGO SOLUTION:
IoT Manager

- Through Sectigo's IoT Manager, WiMAX Forum was able to install trusted, mutual-authentication solutions for all AeroMACS IoT devices and networks
- The IoT Manager secures the lifecycle of all AeroMACS PKI assets while enabling the IoT infrastructure

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Ensuring the Security of Scalability, Interoperability, and Longevity for AeroMACS

In every airport across the world, thousands of communications occur every moment — from the air traffic control to the flight crew to the runway workers. And with such a multitude of aviation disciplines at airports around the globe, the lack of a universal communication security apparatus can lead to errors and vulnerabilities. To mitigate this issue, WiMAX Forum created Aeronautical Mobile Airport Communication System, or **AeroMACS**.

"You have thousands of communications all going on at the same time," says Declan Byrne, President of WiMAX Forum. "What the industry really needs is to be able to secure those lines — and it needs a universal solution, so everyone's on the same page. AeroMACS PKI is a key enabler for safer networks in the airport surface."

Designed to help coordinate communications between all airport actors, AeroMACS needed to mitigate malicious intervention on the tarmac while striving for multi-party trust, interoperability with myriad players, and scalability across the globe.

"Every communication that occurs between connected devices needs a unique identity — thousands across every airport, multiplied by the number that span the globe," said Byrne. "Such a level of scalability has got to be robust, especially when you're considering the issuance of secure IDs at the beginning, renewal phase, and revocation stage."

With so many players across disciplines, states, and countries, there's a need to create interoperability throughout the variety

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of third party vendors. WiMAX Forum determined a PKI ecosystem would provide the most robust trust model for everyone, as it allows for command and control between devices while requiring a third party to issue the unique IDs.

To secure the longevity this endeavor required, WiMAX Forum needed to consider how security protocols and PKI certificate definitions will need to change over time — and how AeroMACS will require multiple roots of trust that allowed for re-issuance of secure identities in the event of a business or technical loss. To succeed in this endeavor, they needed a vendor with public and private trust experience, and a partner with vision, agility, and knowledge of security ID definitions.

"It was paramount," stated Byrne, "to garner this trust from our customers and partners...that AeroMACS would give them the security they need."

Bringing AeroMACS to Life Through Sectigo's IoT Manager

Through implementation of **Sectigo's IoT Manager**, WiMAX Forum was able to utilize PKI for their 4G telecommunications ecosystem, allowing airlines, airports, air traffic control, aviation companies, and authorities to deploy AeroMACS across their devices and servers. Through this, all actors can now exchange secure communications without the risk of malicious interference.

"We saw in AeroMACS the ability to implement our IoT Manager in a way that will bring them the security and global scalability they're driving towards," said Damon Kachur of Sectigo.

With Sectigo's advanced PKI management solution, WiMAX Forum was able to provide trusted, mutual-authentication

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across their IoT devices and networks, enabling their global customers' ability to achieve secure IoT scalability, protect the lifecycle, and build an IoT ecosystem.

"Sectigo's IoT Manager helped us build scalability, so we could bring AeroMACS to airports and companies across the globe," remarked Byrne.

Renowned for responsive, cutting-edge web security solutions, Sectigo will be able to maintain WiMAX Forum's need to address the ever-evolving PKI certificate definitions, as well as the challenge of re-issuing IDs.

From device certificates, server certificates, and specialized aircraft certificates, Sectigo provided WiMAX Forum with the trusted Certificate Authority they needed to bring AeroMACS to a scalable level for their customers, providing an inter-operational solution with cutting-edge, reflexive tools to deliver longevity.

Of their partnership, Byrne remarked, "With Sectigo, we're really getting a trusted partner with the forward-thinking ability to help keep AeroMACS secure and sustainable into the future."

About Sectigo
Trusted by enterprises globally for more than 20 years, Sectigo (formerly Comodo CA) provides web security products that help customers protect, monitor, recover, and manage their web presence and connected devices. As the largest commercial Certificate Authority, with more than 100 million SSL certificates issued across 150 countries, Sectigo has the proven performance and experience to meet the growing needs of securing today's digital landscape.