# Cybersecurity and the Internet of Things

## 9:00am – 9:15am
**Welcome and Introductions**

Dr. Richard Soley, Chairman and Chief Executive Officer of OMG®, Executive Director of the Cloud Standards Customer Council™, and Executive Director of the Industrial Internet Consortium™

## 9:15am - 9:45am
**The Safe, Secure, Reliable Industrial Internet: A Standards Story**

Robert Martin, Senior Principal Engineer, Cyber Security Partnerships, The MITRE Corporation Steering Committee Member, Industrial Internet Consortium

With the emergence of the Industrial Internet of Things (IIoT) many are trying to understand how their organization can step up to the new world of connected things that can cause harm, lead to safety issues, and could serve for decades. Join this session as we explore the driving concepts behind creating a safe, secure, and reliable IIoT system and look at how OMG standards play their role in the new IIoT marketplace and IIoT ecosystems as we evolve our IT & OT cultures into the IIoT culture.

- Safe, Reliable and Secure – how to tell?
- Sourcing and integrating trustworthy components
- Standards and evidence-based value chains in IIoT ecosystems

## 9:45am - 10:15am
**The Coming Swarm: Autonomous Drones**

Lieutenant Commander Rollie J. Wicks, U.S. Navy
Dr. Jeff Smith, Multi Agency Collaboration Environment (MACE)

LCDR Rollie Wicks is an associate advisor of the Secretary of the Navy Naval Innovation Advisory Council (NIAC) and an expert in autonomous systems, artificial intelligence, and robotics. In 2017 LCDR Wicks was featured on 60 Minutes for "The Coming Swarm," a segment about the next generation of autonomous drones for low-altitude intelligence, surveillance and reconnaissance developed by LCDR Wicks, Dr. Jeff Smith from MACE, and team.

LCDR Wicks and Dr. Jeff Smith will discuss the technology and OMG standards powering this innovation and the cyber challenges they are addressing.

## 10:15am - 10:30am
**Morning Refreshment Break**
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>10:30am –</td>
<td><strong>Update on NTIA Initiatives on IoT Vulnerabilities: Security Updatability and Software Component Transparency</strong></td>
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<td>11:00am</td>
<td>Dr. Allan Friedman, Director of Cybersecurity Initiatives, National Telecommunications and Information Administration, US Department of Commerce</td>
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<td>A key obstacle in consumer IoT security is the lack of shared definitions and practices for security updates. NTIA at the US Department of Commerce has convened a multi-stakeholder process of security researchers, vendors and other experts to address both technical and market issues. This presentation from Dr. Friedman will review progress and future directions, and solicit feedback from the community.</td>
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<td>11:00am –</td>
<td><strong>Code Quality Standards and Technical Debt Management</strong></td>
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<td>11:30am</td>
<td>Dr. Bill Curtis, SVP and Chief Scientist, CAST, Executive Director, Consortium for IT Software Quality (CISQ)</td>
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<td>The Consortium for IT Software Quality (CISQ) has developed OMG standards for measuring software structural quality (Reliability, Security, Performance Efficiency, and Maintainability) from source code. This year, CISQ will extend the quality measures to cover embedded and real-time systems, which is critically important for securing the IoT. Dr. Curtis will brief on these automatable standards and discuss next steps from CISQ.</td>
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<td>11:30am –</td>
<td><strong>IoT Architecture and Risk Analytics</strong></td>
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<td>12:00pm</td>
<td>Dr. Nick Mansourov, CTO, KDM Analytics</td>
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<td>Cybersecurity is protection of computer systems from theft damage to their hardware, software or information, as well as from disruption or misdirection of the services they provide. Dr. Mansourov will explain how to identify, analyze, classify and understand cybersecurity threats and related risks in IoT architecture. He will discuss cyber risk standards and the interrelationships between assurance, engineering and risk used to assess the trustworthiness of a system.</td>
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<td>12:00pm - 1:00pm</td>
<td><strong>Lunch</strong></td>
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<td>1:00pm - 1:15pm</td>
<td><strong>A Review of the OMG Standards Process</strong></td>
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<td>Diane Ehramjian, Manager, Business Development Operations, OMG</td>
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<td>The Object Management Group has a 28-year history of establishing standards for software and information modeling and integration, and fostering an active market of tools supporting those standards. Learn how the OMG accomplishes its mission through the work of its members and through a rigorous, open and agile process for specification development and adoption.</td>
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1:15pm – 2:00pm | Poster Session – Cybersecurity in OMG Standards Work

The leaders of various OMG groups will present updates on recent work; in particular, how it relates to cybersecurity in IoT. The poster session format will allow attendees to focus on areas of highest interest to them, and to engage into in-depth discussions with the presenters. The following areas will be featured:

- Unified Architecture Framework® (UAF®)
- Systems Assurance Task Force
- Automated Source Code Software Quality Measures
- Structured Assurance Case Metamodel (SACM™)
- Data Distribution Service™ (DDS™)
- Data Residency
- Information Exchange Framework™ (IEF™)
- And more

2:00pm - 3:00pm | Panel Discussion and Wrap Up

To close out the day, several of the day’s speakers will join in a panel session to discuss with the audience how end users, technology suppliers, as well as the OMG and its various programs, can work together to address the cybersecurity challenges posed by the proliferation and interconnection of billions of IoT devices.

Moderator: Djenana Campara, CEO, KDM Analytics; Co-chair, OMG Systems Assurance Task Force

Panelists:
- Lieutenant Commander Rollie J. Wicks, U.S. Navy
- Robert Martin, Senior Principal Engineer, Cyber Security Partnerships, MITRE
- Dr. Allan Friedman, Director of Cybersecurity Initiatives, National Telecommunications and Information Administration, US Department of Commerce
- Gerardo Pardo, CTO, RTI

5:00pm - 7:00pm | Optional Evening Reception and DDS Security Demo

You are cordially invited to attend this evening's event: OMG Meet & Greet: DDS Relevance in the Real World which will feature light refreshments, a live, multi-vendor interoperability demonstration, and the opportunity to network with the DDS User Community in an informal setting. Event is complimentary but separate registration is required here.

Agenda as of March 6, 2018. Agenda/speakers subject to change with or without notice.