

# CONFERENCE PROGRAM

THE THIRD

## International Cryptographic Module Conference

ICMC15

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November 4-6, 2015 ■ Hilton, Washington, D.C.





## Customer Voices

"...With the help of atsec's CST Lab, Watchdata received a FIPS 140-2 Security Level 3 validation certificate (#2397) for the Watchkey ProX USB Token. We applaud the professional ability of atsec's team. They have proven once again that they are able to work successfully with customers around the world for their certification needs."

Sincerely,  
Thomas Wang Xuelin  
Watchdata Technologies Pte Ltd

"...We are grateful for atsec's assistance in preparing the hardware-based cryptographic module in the Qualcomm® Snapdragon™ 805 processor to pass FIPS 140-2 security certification. Passing FIPS 140-2 certification helps qualify our customers to work with government departments and regulated industries and to better address enterprise needs."

Sincerely,  
Antonio Challita  
Qualcomm Technologies, Inc.

"...We have been working together with atsec on Common Criteria, FIPS 140-2, and DISA STIG certifications for many years. atsec's professionalism, knowledge, and steady effort helps make our products more secure for all our customers."

Sincerely,  
Thomas Biege  
SUSE

"...In the process of working towards the certificate, we experienced atsec as a reliable team with personal attention that manages changes adequately and is committed to perform. It was a pleasure to work with the team from atsec."

Best regards,  
Gijs Willemse,  
Bob Oerlemans  
INSIDESecure

"...We have been working with atsec for many years undergoing Common Criteria and FIPS evaluations. Having just completed our latest FIPS evaluation I would like to once again thank atsec for their professional approach to helping us achieve our goals. As always, the core team has demonstrated great care and attention to detail. They have been a pleasure to work with."

Sincerely  
Alex Hennekam  
IBM Security Systems

"...We have worked closely with atsec information security corporation as the evaluation lab for Common Criteria and FIPS-140 certifications of Red Hat Enterprise Linux during the past several years. With the help of atsec, Red Hat has earned a place at the top of the list of the industry's most certified operating systems. atsec always demonstrates integrity, professionalism, and technical expertise in the security field. They are a pleasure to work with."

Regards,  
Steve Grubb  
Red Hat, Inc.

"...atsec has always shown professionalism, integrity, and expertise in the field of information security. They have been a pleasure to work with."

Sincerely,  
Jorma Levomäki  
McAfee

"...atsec information security corporation is the evaluation lab of SecuTech for FIPS-140 certifications. We are really happy to work with atsec's professional team. The whole validation process runs smoothly and efficiently under the instruction of atsec. We really appreciate the effort, help and kindness of atsec in the past years."

Best regards,  
Raymond Chaw  
SecuTech

Learn more at our booth in the exhibition hall or visit [www.atsec.com](http://www.atsec.com)

# Welcome

Dear ICMC 2015 Participant,

I'd like to personally welcome each of you to the Third Annual International Cryptographic Module Conference (ICMC). Three years ago, when atsec launched the first ICMC, we envisioned that the community needed a common ground to discuss the standards, technologies and processes that influence cryptographic module validation. Three years down the road, the conference has evolved into a self-funded event with many enthusiastic supporters working in the technical community.

We are seeing many changes in commercial cryptography and it's exciting to see the industry embrace them and move forward with a spirit of innovation and discovery. We work in a vibrant field and the ICMC brings together inspired people to ensure we navigate the cutting edge successfully.

I'd like to give you an idea of what you can expect and what we hope to achieve over the next three days. We are excited to share with you the workshops and presentations from government, academia, product developers, laboratories, consultants and industry leaders.

Wednesday, November 4th, consists of five half-day, Pre-Conference Workshops.

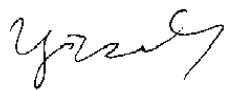
Thursday, November 5th, begins with three exciting keynote speeches from industry and government leaders, and continues with presentations on three tracks: Certification Programs, General Technology and Advanced Technology. The exhibit area opens this day right after keynotes. At the end of the day, we invite you to join us for a reception in the exhibits area.

Friday, November 6th, continues presentations on two tracks: Certification Programs and General Technology, and begins presentations on a new track: End User Experience. The conference concludes with a Summary Panel Discussion. The exhibits are open until immediately before the Summary Panel.

We hope this conference will enable open discussions, exchange of ideas and provide many opportunities to network, collaborate and share information. We have attendees and presenters from around the globe and we hope build international relationships as well.

Thank you so much for attending the ICMC and sharing your experience, expertise and ideas. We are tremendously encouraged by your participation and feedback. Throughout the conference, please stay engaged and assist us in shaping the future of the ICMC and the commercial cryptography industry. Our thanks also goes out to the conference sponsors and exhibitors. We hope you will take some time to visit the booths.

My personal respect and thanks to all of you,



Yi Mao, CST Lab Manager  
atsec information security corporation

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## Contact Information

### Program Committee

**Erin Connor**, Director, EWA-Canada

**Ryan Hill**, Consultant, atsec information security

**Nithya Rachamadugu**, Director, CygnaCom

**Bill Rutledge**, Project Director, ICMC 2015

**Marcus Streets**, Product Director, High Security Products, Good Technology

### Conference Staff

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## Presented by CMUF

The Cryptographic Module User Forum (CMUF) provides a voice and communications channel between the community of unclassified cryptographic module (CM) and unclassified cryptographic algorithm developers, vendors, test labs and other interested parties, and the various national, international, and multi-lateral organizational committees, schemes, and policy makers. Join the Forum at [cmuf.org](http://cmuf.org).

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# Conference Agenda

Detailed session descriptions are online at [www.ICMConference.org](http://www.ICMConference.org)

<b>Pre-Conference Workshops (W)</b> on Nov 4. <b>Plenary Sessions (P)</b> on Nov 5, followed by 4 tracks:	<b>Certification Programs Track (C)</b> Issues related to the CMVP, government programs and policy	<b>General Technology Track (T)</b> Tools and techniques relating to cryptographic modules	<b>Advanced Technology Track (A)</b> High-level technology issues, or special-focus subject matter	<b>User Experience Track (U)</b> Information of interest to the cryptographic module end-user
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## Pre-Conference Workshops

### Wednesday, November 4

#### Pre-Conference Workshop Sessions

Regency, Plaza 2 & Plaza 3

- 9:00 **How Not To Do a FIPS 140 Project (W01a)** Steve Weingart, Manager of Public Sector Certifications, Aruba Networks; Chris Keenan, Evaluator, Gossamer Security Solutions
- 9:00 **Breaking into Embedded Devices: Side Channel Analysis (W01b)** Jasper Van Woudenberg, CTO North America, Riscure
- 9:00 **GlobalPlatform—Addressing Unique Security Challenges through Standardization (W01c)** Kevin Gillick, Executive Director, GlobalPlatform; Hank Chavers, Technical Program Manager, GlobalPlatform; Philip Hoyer, Director of Strategic Innovation, HID Global, and Identity Task Force Chair, GlobalPlatform; Alexander Summerer, Technology Consultant, Giesecke & Devrient, and Secure Element Access Control Working Group Chair, GlobalPlatform
- 12:15 **Lunch in Atrium**
- 13:15 **Validating a Virtual Module Without Guidance From CMVP (W02a)** Steve Ratcliffe, TME, Cisco
- 13:15 **Breaking into Embedded Devices: Fault Injection (W02b)** Jasper Van Woudenberg, CTO North America, Riscure
- 16:30 **Adjourn**

## Conference Sessions

### Thursday, November 5

#### Plenary Keynote Presentations

Plaza 1-3

- 8:00 **Registration and Coffee**
- 9:00 **Welcome, Introductions** Yi Mao, Principal Consultant, atsec information security
- Current Issues in Cryptography** Phil Zimmermann, Co-founder, Silent Circle
- Cryptography, Moore's Law & Hardware Foundations for Security** Paul Kocher, President, Chief Scientist, Cryptography Research
- Department of Defense Cybersecurity** Marianne Bailey, Principal Director, Deputy CIO for Cybersecurity, Department of Defense
- 10:30 **Break, Exhibits Open**

#### Thursday Opening Lunch

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THE FOURTH  
International  
Cryptographic  
Module  
Conference  
**ICMC16**

*In 2016, ICMC will grow into an expanded international venue, with a new late Spring timeframe chosen to avoid conflict with other major industry events.*

## Conference Sessions

## Thursday, November 5

	Certification Programs Track	Plaza 1	General Technology Track	Plaza 2
11:00	<b>Accreditation, Validation and Recognition based on ISO Standards</b> (C12) Randall Easter, NIST. <i>The future in International Standards for cryptographic module testing and how to participate in their development. Let's also talk about a new International scheme for cryptographic module testing.</i>		<b>Effective Cryptography—Or: What's Wrong With All These Crypto APIs?</b> (G12) Thorsten Groetker, CTO, Utimaco. <i>We'll talk about implementing cryptographic algorithms in software, while overcoming the shortcomings of the likes of PKCS#11 and JCE</i>	
11:45	<b>The Next Steps Toward A Scalable International Cryptographic Evaluation Process</b> (C13) Clint Winebrenner, Technical Lead, Product Certifications Security & Trust Organization, Cisco. <i>We'll propose how we can work together influence an internationally acceptable cryptographic algorithm validation process.</i>		<b>The Next Steps Toward A Scalable International Cryptographic Evaluation Process</b> (C13) Clint Winebrenner, Technical Lead, Product Certifications Security & Trust Organization, Cisco. <i>We'll propose how we can work together influence an internationally acceptable cryptographic algorithm validation process.</i>	
12:30	<b>Lunch in Exhibit Area, Sponsored by Oracle</b> <i>Cryptographic Module User Forum (CMUF) Meeting: Twinbrook Room</i>			
13:45	<b>Legacy Random Number Generators (RNGs)</b> (C14) Zhiqiang (Richard) Wang, CSTL Lab Technical Director, Leidos; William Tung, Senior Security Evaluation Analyst, Gemalto. <i>Many legacy RNGs won't be permitted in FIPS mode after 2015. We'll talk about how to prepare for this change.</i>		<b>The What, Why, and How of Tokenization</b> (G14) Peter Helderman, Principal Consultant, UL. <i>Tokenization: from complementing cryptography to being a part of cryptographic operations.</i>	
14:30	<b>Proposed Changes for a Long-Overdue Revision of FIPS 140-2</b> (C15) Francisco Corella, Founder & CTO, Pomcor; Karen Lewison, CEO, Pomcor. <i>ISO 19790:2012 has been suggested as a candidate to succeed FIPS 140-2, but it only makes incremental changes. We propose three substantial changes that should be incorporated into a revised standard.</i>		<b>SP 800-131A Transitions and Related Implementation Guidance</b> (G15) Allen Roginsky, Mathematician, NIST; Apostol Vassilev, Cybersecurity Expert, Computer Security Division, NIST. <i>We'll review the status of the cryptographic algorithms and key sizes that are subject to the NIST transition and will announce the future transition steps.</i>	
15:15	<b>Break in Exhibit Area</b>			
15:45	<b>Adding to the Approved List of Algorithms</b> (C16) Kelvin Desplanque, TME—Government Certification CoGS—Canada, Cisco Systems. <i>Occasionally someone in the vendor community will find a method for extending either the efficiency or security of a new mode of a particular algorithm on the FIPS Approved List. This presentation will describe the journey that follows.</i>		<b>SP800-90B: Analysis of Linux /dev/random</b> (G16) Stephan Mueller, Principal Consultant and Evaluator, atsec information security. <i>We will present test approaches that allows /dev/random with the entropy pools and the events feeding into these pools to be observed at runtime.</i>	
16:30	<b>CMVP Programmatic Status (CMVP)</b> (C17) Carolyn French, ITS Engineer, CSE; Michael Cooper, IT Specialist, NIST; Apostol Vassilev, Cybersecurity Expert, Computer Security Division, NIST. <i>This presentation will discuss the status of the CMVP, including some of the challenges, successes, and directions for development.</i>		<b>Enough Entropy? Justify It!</b> (G17) Yi Mao, Principal Consultant, atsec information security. <i>This presentation will review various mathematical definitions of Entropy, and present some examples of how the entropy assessment can be performed on commonly used seed sources.</i>	
17:15	<b>Networking Reception in Exhibit Area</b>			

## Advanced Technology Track

Plaza 3

- 11:00 **Quantum Computing and Its Impact** (A12) David Cornwell, Lead Engineer, Booz Allen Hamilton. *You'll learn about which FIPS 140 algorithms are "quantum safe" and which ones are not.*

- 11:45 **Extending Derived Credential Use to Support S/MIME Even with Medium-Hardware Protected Credentials** (A13) Issam Andoni, Chief Technology Architect/Owner, Zeva Inc. *We'll review a solution that allows mobile device users to securely read encrypted email by extending the use of derived credentials rather than smart card credentials.*

- 12:30 **Lunch in Exhibit Area, Sponsored by Oracle**

- 13:45 **A Look into Hard Drive Firmware Hacking** (A14) Khai Van, Security Tester, Gossamer Security Solutions. *This presentation will dissect a firmware hack, examine the procedure, and review the implications on consumers. We will also explore possible future safeguards against these attacks as this story progresses.*

- 14:30 **Improved Approaches to Online Health Testing in SP800-90 RNGs** (A15) David Johnston, Hardware Security Architect, Intel. *This presentation will address the current suite of standards for the validation of cryptographic algorithms and modules and those that are in development.*

- 15:15 **Break in Exhibit Area**

- 15:45 **Test Vector Leakage Assessment (TVLA) for Side Channel Analysis in Conformance Testing Scenario** (A16a) Gilbert Goodwill, Sr. Principal Engineer, Cryptography Research. (A16b) Steve Weymann, Security Engineer, InfoGard Laboratories. *Two presentations provide an update on side channel testing, and a look at its practicality in conformance testing scenarios.*

- 16:30 **CMVP Programmatic Status (CMVP)** (C17) Carolyn French, ITS Engineer, CSE; Michael Cooper, IT Specialist, NIST; Apostol Vassilev, Cybersecurity Expert, Computer Security Division, NIST. *This presentation will discuss the status of the CMVP, including some of the challenges, successes, and directions for development.*

- 17:15 **Networking Reception in Exhibit Area**

## Conference Presentations

Presentations will be available after the conference at [www.ICMConference.org](http://www.ICMConference.org)

Password: \*\*\*\*\*

## WiFi Access

WiFi service is available to conference registrants in the public areas of the hotel.

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## Join the Conversation on Twitter



**#CryptoModConf**

## Conference Sessions

## Friday, November 6

	Certification Programs Track	Plaza 1	General Technology Track	Plaza 2
9:00	<b>CSfC Program and its FIPS 140-2 Requirements</b> (C21) Matt Keller, VP, Corsec Security. <i>We'll explain how FIPS 140-2 validation and adherence to Suite B will impact a vendor's ability to be listed on the CSfC Components List.</i>		<b>Repetition Count Test</b> (G21) Jason Tseng, Project Control Analyst, Leidos; Michael Powers, Security Assurance Engineer, Leidos. <i>We'll discuss the new proposed Repetition Count Test (RCT), its benefits for vendors, as well as the FIPS 140-2 requirements behind a CRNGT for NIST Special Publication 800-90.A Deterministic Random Bit Generators (DRBGs).</i>	
9:45	<b>What is Suite-B Cryptography and How Does it Relate to Government Certifications?</b> (C22) Anthony Busciglio, Co-Founder, Laboratory Manager, Acumen Security. <i>This presentation will provide a high-level introduction to Suite-B, and discusses how it applies to commonly certified cryptographic protocols.</i>		<b>Roadmap to Testing of New Algorithms (CAVP)</b> (G22) Sharon Keller, Computer Scientist, NIST; Apostol Vassilev, Cybersecurity Expert, Computer Security Division, NIST. <i>This presentation will discuss the evolution of the CAVP with the testing of newly adopted approved cryptographic algorithms.</i>	
10:30	<b>Break in Exhibit Area</b>			
11:00	<b>Introduction on the Commercial Cryptography Scheme in China</b> (C23) Di Li, atsec information security. <i>We've heard a lot about CMVP and FIPS 140-2, this time let's see what is happening in China and what we can do to join the game.</i>		<b>Entropy Estimation by Example</b> (G23) David Cornwell, Lead Engineer, Booz Allen Hamilton. <i>We will review the fundamentals of entropy estimation, statistical tests of SP 800-90, and the NIST entropy tool. We will provide specific examples of the entropy estimation of data streams and keys.</i>	
11:45	<b>FIPS 140 Quo Vadis?</b> (C24) Apostol Vassilev, Cybersecurity Expert, Computer Security Division, NIST. <i>It takes a village—industry, labs, CMVP, government agencies—to respond well to the incredibly fast evolving challenges in cybersecurity and cryptography.</i>		<b>Importance of Open Source to the Cryptographic Module Community</b> (G24) Chris Brych, Senior Principal Security Analyst, Oracle. <i>After almost 10 years, the time is coming that OpenSSL distributions will not contain any FIPS support. We'll look at the history of the OpenSSL project, why OpenSSL FIPS support is important, and discuss concerns in the near future.</i>	
12:30	<b>Lunch in Exhibit Area</b>			
13:30	<b>Cryptographic Validation Requirements and the Common Criteria (ISO/IEC 15408)</b> (C25) Kirill Sinitski, Common Criteria Evaluator & Quality Coordinator, CygnaCom. <i>For anyone who is interested in the Common Criteria this presentation may lessen the pain of meeting requirements.</i>		<b>Challenges in Generating Keys for Asymmetric-Key Algorithms</b> (G25) Allen Roginsky, Mathematician, NIST. <i>We will review the approved methods for key generation for RSA and other asymmetric-key algorithms, the risks, the attacks, the implementation and testing issues.</i>	
14:15	<b>NIST &amp; NIAP Working Together</b> (C26) Janine Pedersen, Director, National Information Assurance Partnership (NIAP); Michael Cooper, IT Specialist, NIST. <i>NIST and NIAP are collaborating to streamline evaluations—leveraging commonalities to gain efficiencies. This presentation will discuss progress to date and plans for the future.</i>		<b>What is My Operational Environment?</b> (G26) Swapneela Unkule, atsec information security. <i>Attendees will understand operational environment for algorithm vs module validation.</i>	
15:00	<b>Break in Exhibit Area</b> (Exhibits Close at 15:30)			



End User Experience Track

Plaza 3

- 9:00 **Commonly Accepted Keys and CSPs Initiative** (U21) Ryan Thomas, FIPS 140-2 Program Manager, CGI Global Labs. *This presentation will focus on an initial list of Industry Protocols such as TLS, SSH, SNMP and IPsec, RADIUS, Key Derivation Protocols such as 802.11i, and algorithms such as Diffie-Hellman, EC Diffie-Hellman and SP 800-90A DRBG.*
- 9:45 **FIPS is FIPS, Real World is Real World and Never the Twain Shall Meet?** (U22) Ashit Vora, Co-Founder and Laboratory Director, Acumen Security. *This presentation will cover the evolution of FIPS 140-2, discuss some egregious requirements that may be irrelevant or harmful to modern crypto systems, and provide recommendations on remediation.*
- 10:30 **Break in Exhibit Area**
- 11:00 **Collateral Damage—Vendor and Customer Impact of Frequent Policy Changes** (U23) Joshua Brickman, Director, Security Evaluations, Oracle; Glenn Brunette, Senior Director and Chief Technologist, Cybersecurity, Oracle. *This talk will demonstrate examples highlighting how continuous changes to policies can have a major impact on a product's lifecycle from*
- 11:45 **Learning From Each Other and Our Mistakes** (U24) Terrie Diaz, Product Certification Engineer, Cisco Systems; Edward Morris, Co-Founder, Gossamer Security Solutions. *We will examine how FIPS 140-2 and Common Criteria certification schemes intersect, support one another, are (to a degree) synergistic, and could remain so.*
- 12:30 **Lunch in Exhibit Area**
- 13:30 **FIPS140-Testing: You Want My What?** (U25) Valerie Fenwick, Software Engineering Manager, Oracle; Hai-May Chao, Principal Software Engineer, Solaris Security Technologies Group, Oracle. *Algorithm testing and IGs—what your customers don't know won't hurt them?*
- 14:15 **Validating Encryption: The Bottleneck in Security Innovation** (U26) Ray Potter, CEO, SafeLogic; Walter Paley, Director of Marketing, SafeLogic. *True or False: Validating encryption allows the US Federal government to deploy the best, most cutting-edge technology in a secure way?*
- 15:00 **Break in Exhibit Area** (Exhibits Close at 15:30)

Summary Panel Discussion

Plaza 1

- 15:30 **Impact of Draft CMVP Policy Changes on Industry (P27)** Moderator: Marcus Streets, Product Director High Security Products, Good Technology Panelists: Douglas Gebert, Enterprise Architect, HP Enterprise; Michael Cooper, IT Specialist, NIST; Tammy Green, Senior Principal Security Architect, Blue Coat Systems; Laurie Mack, Director Security & Certifications, Gemalto.
- Recently, NIST requested public comment on a proposal to use the ISO/IEC 19790:2014 Security Requirements for Cryptographic Modules standard as the U.S. Federal Standard for cryptographic algorithm and cryptographic module testing, conformance, and validation activities, replacing the standards currently specified by FIPS 140-2. With the period for public comment ending just prior to ICMC15, there will be much to discuss about this proposed shift. These industry experts will explore the issue in a moderated discussion with plenty of opportunity for audience Q&A. Don't miss it.*

16:15 **Conference Adjourns**

# Public Sector Leaders

- ✓ 20 of the 20 Top Global Governments
- ✓ 15 of the 15 Federal Cabinet Departments
- ✓ 50 of the 50 States
- ✓ 20 of the 20 Top Counties
- ✓ 20 of the 20 Top Cities

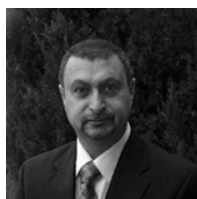
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# Speakers

Speaker biographies are online at [www.ICMConference.org](http://www.ICMConference.org)



## Issam Andoni

Chief Technology  
Architect/Owner, Zeva Inc.

A13



## Hank Chavers

Technical Program Manager,  
Global Platform

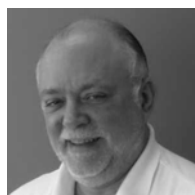
W01c



## Marianne Bailey

Principal Director, Deputy CIO for  
Cybersecurity, Department of  
Defense

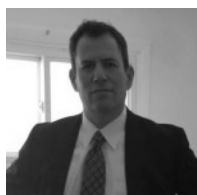
P11c



## Erin Connor

Director, EWA-Canada

Program Committee



## Joshua Brickman

Director, Security Evaluations,  
Oracle

U23



## Michael Cooper

IT Specialist, NIST

C17, C26



## Glenn Brunette

Senior Director & Chief  
Cybersecurity Technologist, Oracle

U23



## Francisco Corella

Founder & CTO, Pomcor

C15



## Tony Busciglio

Co-founder & Laboratory Director,  
Acumen Security

C22



## David Cornwell

Lead Engineer, Booz Allen  
Hamilton

G23



## Chris Byrch

Senior Principal Security Analyst,  
Oracle

G24



## Kelvin Desplanque

Security Certification Engineer,  
Cisco Systems Limited

C16



## Hai-May Chao

Principal Software Engineer, Solaris  
Security Technologies Group,  
Oracle

U25



## Terrie Diaz

Product Certification Engineer,  
Cisco Systems

U24





**Randall Easter**

Computer Security Division,  
STVM, NIST

C12



**Valerie Fenwick**

Software Engineering Manager,  
Oracle

U25



**Carolyn French**

Manager, Cryptographic Module  
Validation Program

C17



**Douglas Gebert**

Enterprise Architect, HP Enterprise

P27



**Shawn Geddis**

Security & Certifications Engineer,  
Apple Inc.

Moderator



**Kevin Gillick**

Executive Director, GlobalPlatform

W01c



**Gabriel Goller**

R&D Specialist Cryptology, Giesecke  
& Devrient GmbH

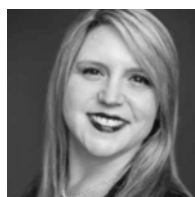
A17



**Gilbert Goodwill**

Senior Principal Engineer,  
Cryptography Research

A16a



**Tammy Green**

Senior Principal Security Architect,  
Blue Coat Systems

P27



**Thorsten Groetker**

CTO, Utimaco

G12



**Peter Helderman**

Principal Consultant, UL

G14



**David Johnston**

Hardware Security Architect, Intel  
Corporation

A15



**Chris Keenan**

Gossamer Security Solutions

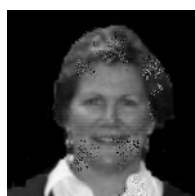
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**Matt Keller**

Vice President, Corsec

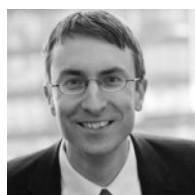
C21



**Sharon Keller**

Computer Scientist, NIST

G22



**Paul Kocher**

President and Chief Scientist,  
Cryptography Research

P11b



**Karen Lewison**

CEO, Pomcor

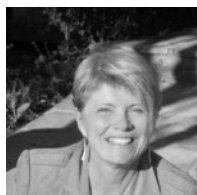
C15



**Di Li**

Senior Consultant, atsec China

C23



**Laurie Mack**

Director Security & Certifications,  
Gemalto

P27



**Yi Mao**

Lab Director, atsec information  
security

G17



**Edward Morris**

Co-Founder, Gossamer Security  
Solutions

G13



**Stephan Mueller**

Principal Consultant and Evaluator,  
atsec information security

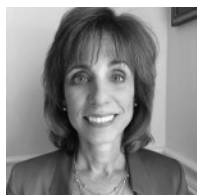
G16



**Walter Paley**

Director of Marketing, SafeLogic

U26



**Janine Pederson**

Director, National Information  
Assurance Partnership (NIAP)

C26



**Ray Potter**

CEO & Founder, SafeLogic

U26



**Michael Powers**

Security Assurance Engineer,  
Leidos

G21



**Nithya Rachamadugu**

Director, Cygnacom

Program Committee



**Steve Ratcliffe**

TME, Cisco Systems

W02a



**Allen Roginsky**

Mathematician, NIST

G15, G25



**Kirill Sinitski**

Common Criteria Evaluator,  
Cygnacom CCCEL Canada

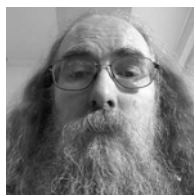
C25



**Jonathan Smith**

Senior FIPS Engineer, CygnaCom  
Solutions

Moderator



**Marcus Streets**

Director High Security Products,  
Good Technology

Program Committee, P27



## Alexander Summerer

Technology Consultant, Giesecke & Devrient; Chair, GlobalPlatform Secure Element Access Control Working Group

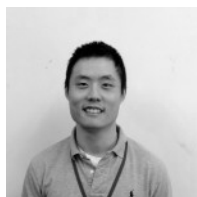
W01c



## Ryan Thomas

FIPS 140-2 Program Manager, CGI Global IT Security Labs-Canada

U21



## Jason Tseng

Leidos CSTL Lab Manager

G21



## William Tung

Senior Security & Certifications Analyst, Gemalto

Moderator



## Swapneela Unkule

Senior Consultant, atsec information security

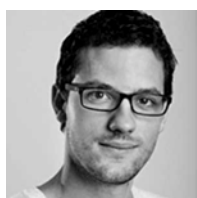
G26



## Khai Van

Security Tester, Gossamer Security Solutions

A14



## Jasper Van Woudenberg

CTO North America, Riscure

W01b



## Apostol Vassilev

Technical Director, Cryptographic Module Validation Program, NIST

G15, C24



## Ashit Vora

Co-Founder & Lab Director, Acumen Security

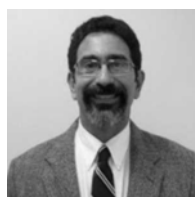
U22



## Zhiqiang [Richard] Wang

CSTL Lab Technical Director, Leidos

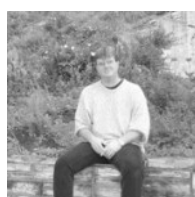
C14



## Steve Weingart

Manager of Public Sector Certifications, Aruba Networks

W01a



## Steve Weymann

Security Engineer, InfoGuard

A16b



## Clint Winebrenner

Technical Lead, Product Certifications Security & Trust Organization, Cisco

C13



## Phil Zimmermann

Co-founder of Silent Circle

P11a





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Booth 6

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Booth 3

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Booth 11

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Riscure is an international and independent security test laboratory founded in 2001 by Marc Witteman, with labs in the USA and in The Netherlands. Riscure is an accredited lab for EMVco security testing, DPA lock testing and various Pay TV schemes. Riscure specializes in evaluating and testing the security of embedded devices that are designed to operate securely in any environment and under all circumstances. Besides offering these services, Riscure develops and maintains security test tools for organizations and companies that want to perform in-house security testing, such as side channel analysis or fault injection.

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#### wolfCrypt FIPS

wolfSSL now has wolfCrypt with FIPS 140-2 validation (Certificate #2425).

Our FIPS certification supports a broad range of wolfSSL customers, specifically those who sell to the US government.

You have the option of rebranding the wolfCrypt module and NIST will issue a FIPS 140-2 certificate in your company's name.

The wolfSSL team has the FIPS expertise you need. Talk to us about it. We can save you time and money.

wolfSSL provides SSL/TLS and cryptography solutions with an emphasis on speed, portability, features, and standards compliance. We cater to diverse user base in the cloud, on appliances, and in government and military applications. We are happy to help our customers and community in any way we can. Our products are Open Source, which provides our users with access to all of our underlying code and documentation.

Why does a security company that focuses on SSL/TLS and cryptography choose a wolf over any number of possible logo designs? The wolf was chosen to be part of the wolfSSL logo for several reasons: wolves like to live in free and open environments, they communicate and hunt in packs (like open source developers hunt bugs), and they are both lean and fast.

**All of wolfSSL's products are 100% made in the USA and have been since the company's birth in 2004.** wolfSSL is based in Bozeman, MT, Seattle, WA, and Portland, OR. All product support provided by wolfSSL is from native English-speaking engineers.

## SSL/TLS Library

For Military and Government Applications, Devices, IoT, and the Cloud  
Providing secure communication for Military, Government, IoT, smart grid, connected home, automobiles, routers, applications, games, IP, mobile phones, the cloud, and more.



**wolfSSL** wolfSSL is a C-language-based

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### wolfCrypt

The wolfCrypt embedded cryptography engine is a lightweight cryptography library targeted for embedded, RTOS, and resource constrained environments primarily because of its small size, speed, and portability. wolfCrypt supports the most popular algorithms and ciphers as well as progressive ones such as HC-128, RABBIT, NTRU, and SHA-3. wolfCrypt is **stable, production-ready**, and backed by an **excellent support team**.

### wolfCrypt FIPS

wolfCrypt FIPS provides customers with a FIPS 140-2 validated (Certificate #2425) cryptography library. The wolfSSL team can add new operating environments and algorithms as needed in addition to accelerating FIPS projects by providing validated cryptography and testing services to our customers.

### Java Wrapper

For Java applications that wish to leverage the industry-leading CyaSSL SSL/TLS implementation for secure communication, our JNI wrapper provides an interface to give those applications support for the current SSL/TLS standards up to TLS 1.2 and DTLS 1.2. **TLS 1.3 support is in Alpha.**

	wolfSSL Inc. Bozeman, MT <a href="mailto:info@wolfSSL.com">info@wolfSSL.com</a> <a href="http://wolfSSL.com">wolfSSL.com</a>
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**WolfSSL**

10016 Edmonds Way, Suite C-300,  
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[www.yassl.com](http://www.yassl.com)

WolfSSL, founded in 2004, is an open source Internet security company with products including the CyaSSL embedded SSL library, wolfCrypt crypto engine, SSL Inspection, and the yaSSL Embedded Web Server. WolfSSL employs the dual licensing model, offering products under both the GPLv2 as well as a standard commercial license. WolfSSL's products are designed to offer optimal embedded performance, rapid integration into existing applications and platforms, the ability to leverage a wide range of hardware crypto solutions, and support for the most current standards. All products are designed for ease-of-use with clean APIs, and are backed by a dedicated and responsive support and development team.

Booth 12

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