RSA Conference **2019** Highlights and Insights

- Video Interviews With Industry Leaders
- Articles, Photos and More From the ISMG Team
- Looking Back on RSA Conference 2019

The Best of RSA Conference 2019

You want to see the 'who's who" and "what's what" from RSA Conference 2019? Look no further.

Here, within the pages of this compendium, you will see the hottest topics and most compelling speakers from the world's premier cybersecurity event. From application security to privacy to zero-trust, we have you covered. From the world's first CISO, Steve Katz, to current RSA President Rohit Ghai and scores — really, scores — of the industry's leading vendors, practitioners and influencers … we've captured their insight.

Once again, we leveraged the power of two video studios – one closed studio within the confines of the nearby Marriott Marquis, and then an open studio along the new Broadcast Alley at the Moscone West main venue.

And within these studios, we conducted more than 150 exclusive video interviews with some of the top thought leaders in the industry. We had CEOs, CISOs, analysts, researchers, law enforcement agents and educators. The topics ranged from DevSecOps and post-GDPR to security orchestration and automation, supply chain risk and how to improve cybersecurity education.

If it happened at RSA Conference 2019, then chances are it was discussed in ISMG studios.

As a media sponsor of RSA Conference 2019, ISMG was at the center of the dialogue at and about the event. This compilation provides a glimpse of our exhaustive RSA Conference 2019 coverage, including exerpts from our exclusive interviews at both studios.

In the past, I've referred to RSA Conference as "the Mardi Gras of security." This year, the event in San Francisco was held concurrent with the Mardi Gras in New Orleans. All you have to do is look in the pages that follow to see what this unprecedented party produced.

Best,

Tom Field
SVP, Editorial
Information Security Media Group
tfield@ismgcorp.io

Visit us online for more RSA coverage:

www.databreachtoday.com/rsa-conference

Video Interviews

More Content

Welcome to ISMG Studios at RSA Conference 2019

TOM FIELD, SVP EDITORIAL, ISMG

Over the course of four days at RSA Conference 2019, ISMG had four editors staffing two video studios to produce more than 150 interviews with the global cybersecurity industry's leaders. Joining me to conduct these interviews were my colleagues Varun Haran, Nick Holland and Mathew Schwartz. And among the conversations were one-on-ones with RSA Conference keynoters, sponsors and speakers, as well as panel discussions dedicated to cybersecurity research, education and the post-GDPR privacy imperative.

Application Security and the Focus on Software Integrity

Andreas Kuehlmann of Synopsys on Shifting Trends

As trends such as DevSecOps and agile application development spread, enterprises increasingly are focused on software integrity. Andreas Kuehlmann of Synopsys discusses how to address this shift.

WATCH ONLINE

Why Businesses Must Maintain Better Security Foundations

Piero DePaoli of ServiceNow Offers Breach Prevention Advice

Many breached businesses lack the foundational controls that would have helped to prevent a data breach, says Piero DePaoli, senior director of security and risk at ServiceNow.

WATCH ONLINE

> "Companies are not prepared for this level of permeation of technologies in their businesses."

Rohit Ghai,
President, RSA

Ann Sung Ruckstuhl,
*Senior Vice President and
Chief Marketing Officer,*
Unisys

Women in Tech: How Are We Doing?
How Should We Be Doing?

Ann Ruckstuhl of Unisys Says Women Are Key to Solving Sector's Talent Shortage

How are we doing on hiring more women in the technology sector? Ann Sung Ruckstuhl of Unisys says that from a demographic representation standpoint, we should be doing far better because of the demonstrable benefits to the business that women bring.

"Today, women account for about 25 percent of the workforce, but in tech only about 14 percent."

In a video interview at RSA Conference 2019, Ruckstuhl discusses why:

- The key to selling job opportunities to women is women;
- Companies with female leadership perform better;
- Women are key for solving the tech talent shortage.

WATCH ONLINE

Why Security for DevOps Is Lagging

Focus on Culture and Tools, Says WhiteHat Security's **Joseph Feiman**

Many large organizations are app developers, and individuals are increasingly using apps to access computing resources. But the age-old problem of code not being reviewed for flaws at every stage of testing and production continues, warns Joseph Feiman of WhiteHat Security.

WATCH ONLINE

Cyber Risk Management Rebooted

Kevin Flynn of Tenable on Revamping How Cyber Risk Is Assessed

As security and business leaders find a new common language in the discussion of business risk, enterprises need to revisit how they assess, measure and communicate cyber risk, says Kevin Flynn of Tenable.

WATCH ONLINE

Putting Application Threat Intelligence Into Action

Preston Hogue of F5 Networks Discusses New Solutions

F5 Networks is a vendor of application security solutions, but its DevSecOps professionals also have the need for actionable threat intelligence, says Preston Hogue, who discusses the advent of new solutions.

WATCH ONLINE

Cybercrime Disruption: The Role of Threat Research

Peter Brecl of CenturyLink on Cyber Information Sharing

CenturyLink has opened Black Lotus Labs, which focuses on threat research used to share information with customers as well as to initiate takedowns of networks used to support cybercrime activities, says Peter Brecl, a director at the company.

WATCH ONLINE

Vendor Risk Management: More Than a Security Issue

OneTrust's **Kabir Barday** on the Need to Address Privacy

Vendor risk management must be a higher priority in all business sectors and must extend beyond security to include privacy, says Kabir Barday of OneTrust.

WATCH ONLINE

API-Centric Automated Attacks on the Rise

CloudEntity CEO **Nathaniel Coffing** on Building Foundational API Security

CloudEntity CEO Nathaniel Coffing shares insight on building foundational API security in a zero-trust world.

WATCH ONLINE

Visibility at a New Depth

Mario Vuksan of ReversingLabs on Monitoring a Broadening Attack Surface

Every security leader wants visibility into the potential attack surface. But that surface is changing in vast new ways, owing to the cloud and connected devices. Mario Vuksan of ReversingLabs defines what visibility truly means today.

WATCH ONLINE

Capturing the Fingerprints of Attacks

Lastline's **John DiLullo** on Tracking Adversaries' Network Movements

It's not enough to detect an attack. To be truly effective, defenders need to capture digital fingerprints and movement through the network. John DiLullo of Lastline discusses this level of defense.

WATCH ONLINE

Greg Jensen,
Senior Principal Director of Security,
Oracle

Cloud Threat Report: The Findings

Oracle's **Greg Jensen** on the Need for Shared Responsibility

Oracle has released its Cloud Threat Report in partnership with KPMG. Greg Jensen discusses highlights of the study and why shared responsibility is now a primary focus.

In a video interview at RSA Conference 2019, Jensen discusses:

- Results and surprises from the study;
- What shared responsibility means to enterprises;
- How to reduce risk and exposure to data loss.

WATCH ONLINE

"Ninety percent of CISOs really are struggling to understand what their role is in securing their organization, versus [the role of] the cloud service provider."

Stan Lowe,
Global CISO,
Zscaler

Enterprise Security in the Era of Digital Transformation

Stan Lowe of Zscaler on How CISOs Can Help Drive Revenue Growth Securely

Digital transformation is having a significant impact on enterprise security. Zscaler's Stan Lowe describes the evolving role of the CISO in the age of cloud and connectivity.

In a video interview with Information Security Media Group at RSA Conference 2019 in San Francisco, Lowe discusses:

- Digital transformation impacting how security is delivered;
- Meeting security demands despite budget pressures;
- The evolving role of the CISO.

WATCH ONLINE

> "The way that we've done security in the past is going to be completely different from the way we'll be doing it in the future."

"I'm really focused on what we can do to remove the complexity from our clients' security programs."

Mary O'Brien,
GM, IBM Security

Chris Painter, Commissioner of the Global Commission on the Stability of Cyberspace and former White House cyber czar

Is US Foreign Cyber Policy on Track?

Ex-Cyber Czar **Chris Painter** on Where US Is Getting It Right - and Wrong

U.S. cyber policy has faced a significant set of challenges in the past two years. How the country responds to the growing threats will shape its diplomatic, military and economic power. With the stakes this high, is the U.S. getting it right?

In a video interview at RSA Conference 2019, Painter discusses:

- The U.S. entities engaged in securing cyberspace;
- What's working and what still needs work;
- The state of critical infrastructure protection.

"Even though the White House has come out with a cyber strategy … you never hear this as a presidential priority. It's not coming from the top."

WATCH ONLINE

Strengthening the Weakest Link

KnowBe4's **Stu Sjouwerman** on Adding One More Layer of Security

It's a common refrain that people are security's weakest link. But Stu Sjouwerman of KnowBe4 has a solution that adds a critical additional layer to address that vulnerability.

WATCH ONLINE

The Role of AI, Machine Learning in Email Security

Adrien Gendre of Vade Secure on Infrastructure Protection

Machine learning models and AI are transforming the way email is secured, says Adrien Gendre of Vade Secure.

WATCH ONLINE

Rethinking Security in the Age of DevSecOps

David Meltzer and **Lamar Bailey** of Tripwire Share Practical Tips

Security needs to keep pace with the application development life cycle to avoid becoming a roadblock, and automation can play an important role, according to David Meltzer and Lamar Bailey of Tripwire.

WATCH ONLINE

The 2019 Bank Heists Report

Carbon Black's **Tom Kellermann** on Latest Threats to Banks

Carbon Black and Optiv have released their 2019 Modern Bank Heists report, which unveils the latest cyber threats to global banking institutions. Report co-author Tom Kellermann discusses the findings and what they mean.

WATCH ONLINE

Understanding Your Risk Surface

Kelly White of RiskRecon on How to Track What's Being Missed

In the expanded, virtual enterprise, security leaders face the challenge of defending an ever more complicated attack surface. How can they best understand and mitigate their risks? Kelly White of RiskRecon shares insights.

WATCH ONLINE

'Disrupting the Hell Out of the Industry'

Socure's **Tom Thimot** and **George Tubin** on Securing Identity

As fraud has shifted over the past decade from basic account takeover to synthetic identities and new account fraud, so has the field of identity protection evolved. Tom Thimot and George Tubin of Socure say they are here to disrupt the industry.

WATCH ONLINE

Cloud Security: How the Dialogue Has Shifted

Palo Alto Network's **Matt Chiodi** on the Evolution of Public Cloud Security

In just five years' time, the public cloud security conversation has changed dramatically, says Matt Chiodi of Palo Alto Networks. But security leaders still struggle with visibility and compliance.

WATCH ONLINE

How Security Needs to Change With Transition to Multicloud

Laurence Pitt of Juniper Networks Discusses Security in New Era

Business perimeters are becoming far more difficult to secure in the age of multicloud. Laurence Pitt of Juniper Networks discusses security strategies for the new era.

WATCH ONLINE

"The attacks and threats are bigger than ever, and I truly believe that enterprises have all the data it needs to identify those attacks. They're just unable to connect the dots.'"

Ricardo Villadiego,
EVP & GM Security and Anti-Fraud, Cyxtera

"My job is actually to expose risk the corporation faces, and provide solutions to the executive team and board of directors on what we should do to reduce that risk."

Mat Newfield,
CISO, Unisys

Josh Mayfield,
Director of Security Strategy,
Absolute Software

How to Minimize the Risk of Security Control Degradation

Josh Mayfield of Absolute Software on the Unstoppable Force of Entropy

Information security programs continue to rely on not just security policies, but also the controls that ensure they get enforced. "Security controls are the enforcement of the intent that we had in mind," says Josh Mayfield of Absolute Software.

In a video interview at RSA Conference 2019, Mayfield discuss:

- What makes for a security control;
- Why security controls inevitably degrade over time, and how to predict what will go wrong;
- How organizations can maintain needed levels of security.

WATCH ONLINE

> "Some of the fastest adversaries we've seen were able to accomplish [breakout time] in seven minutes."

Steve Katz on Cybersecurity's State of the Union

World's First CISO Weighs in on the Technologies and Trends Shaping 2019

It's been decades now since Steve Katz became the business world's first CISO. Today he is still active in the cybersecurity community and offers his unique perspective on security threats, solutions and the next generation of leaders.

WATCH ONLINE

Raising the Corporate Security Understanding

Korn Ferry CISO **Michael Moira** on Improving Enterprise Response to Threats

Too many basic cyber threats are successful too often. And Korn Ferry CISO Michael Miora says it's because enterprises do too little to understand, record and respond to the most common forms of intrusion.

WATCH ONLINE

FBI's Palmore on Leadership and Diversity

Cyber Investigator on the Need to Diversify Skills in Cyber Workforce

At a time when diversity is a key topic within the cybersecurity leadership and workforce, MK Palmore of the FBI says we also need a diversification of skills to help improve breach defense and response.

WATCH ONLINE

Can Machine Learning Systems 'Overlearn'?

Sam Curry of Cybereason on When to Trust ML Systems

Machine learning systems adapt their behavior on the basis of a feedback loop, so they can overlearn and develop blind spots, which if not understood by practitioners can lead to dangerous situations, says Sam Curry, chief security officer at Cybereason.

WATCH ONLINE

Zulfikar Ramzan,
CTO, RSA

Technology's Role in Digital Risk Management

RSA CTO **Zulfikar Ramzan** on Tying Tech to Business Risk

As enterprises embrace strategies built around digital risk management, it isn't that technology becomes a less important conversation. Instead, it's more strategic. Zulfikar Ramzan, CTO of RSA, outline's technology's role in the business path forward.

> "Our businesses are getting more and more digital, which means that digital risk becomes a bigger facet of overall business risk."

In a video interview at RSA Conference 2019, Ramzan discusses:

- The biggest aspect of digital risk;
- The technology challenge;
- How to strategize around digital risk.

WATCH ONLINE

Art Coviello,
former CEO and chairman of RSA

Art Coviello on the 2019 State of Security

Ex-RSA Chair Weighs In on Threats, Technologies and Opportunities

Retired RSA Chairman Art Coviello is optimistic about the rise of privacy and the progression in how enterprises secure their critical, expanded networks. But he also has significant concerns.

In a video interview at RSA Conference 2019, Coviello discusses:

- The state of the industry;
- Threats that concern him most;
- Encouraging security technologies.

WATCH ONLINE

> "I worry about the nation-state threat, but I think generally organizations are getting more and more sophisticated with their security programs."

"The healthcare sector has a 'terrain problem' when it comes to cybersecurity."

Dr. Abdul Rahman,
Cheif Scientist, Fidelis Cybersecurity

"We believe that same [ERP-like] operational integration needs to happen in security."

Art Gilliland,
EVP and GM Enterprise Products, Symantec

Revisiting Election Security Threats

FBI's **Elvis Chan** on What's Being Done to Secure the 2020 Election

Heading into the 2020 U.S. presidential election preseason, the FBI is squarely focused on defending against nation-state hacks and influence, says Elvis Chan of the FBI.

WATCH ONLINE

Cyber Risk Management: Why Automation is Essential

Skybox Security's **Michelle Cobb** on Point Solutions Versus Platforms

The challenge of wanting to adopt the latest and greatest point products, as opposed to opting for a more platform-based approach, seems never-ending, and can only be managed by bringing greater amounts of automation to bear, says Michelle Cobb, CMO of Skybox Security.

WATCH ONLINE

The Evolution and Proliferation of Security Ratings

Sam Kassoumeh of SecurityScorecard on the Past, Present and Future of Ratings

Five years ago, rating the cybersecurity posture of organizations to help reduce risk and improve their security posture was a new idea. Since then, the concept has been expanded to include everything from threat management to cyber insurance premiums, says Sam Kassoumeh, COO of SecurityScorecard.

WATCH ONLINE

Bot-Driven Credential Stuffing Attacks

Patrick Sullivan of Akamai on Factoring Bots in Your Risk Assessment

The threats from bad bots and the consequences of ignoring them continue to rise, says Patrick Sullivan, global director of security at Akamai.

WATCH ONLINE

New Research on Machine Learning Vendors

Julie Conroy of Aite Group Describes Goals of Study

Julie Conroy of Aite Group describes new research on machine learning vendors and real-time payments fraud trends.

WATCH ONLINE

Privileged Access Management: The New Mandate

Chad Carter of Wallix Group on Managing and Monitoring Privileged Access

The explosion in the quantity and diversity of internet-connected devices - from industrial control systems and cars to farming equipment and refrigerators - makes applying privileged access management more important than ever, says Wallix Group's Chad Carter.

WATCH ONLINE

Business Email Compromise: Mitigating the Risk

David Appelbaum of Valimail on Addressing Vulnerabilities

Email remains a key vector for attacks, with business email compromises a growing concern. David Appelbaum of Valimail explains how the threat can be mitigated.

WATCH ONLINE

Why Smaller Businesses Need Comprehensive Security

Avast's **Vince Steckler** on the Layered Security Imperative

Security incidents often result in damage, regardless of an organization's size. But for small and midsize firms, which often lack robust security defenses, the damage may be so severe that it means not only disruption but also the end of the business, says Vince Steckler of Avast.

WATCH ONLINE

"What we're finding is kind of
what's old is new again."

Dan Schiappa,
SVP, Sophos

Eugene Liderman,
Director of Mobile Security Strategy,
Google

Redefining the Approach to Mobile Security

Google's **Eugene Liderman** Dispels Myths and Outlines Strategy

As the new director of mobile security strategy for Google, Eugene Liderman is focused on redefining the strategy and dispelling old security myths. He outlines the approach in this exclusive interview.

In a video interview at RSA Conference 2019, Liderman discusses:

- Google's approach to mobile security;
- The makeup of Google's team;
- The most prevalent mobile myths.

WATCH ONLINE

"Our mission is to try to protect every single Android user, and continually improve the security and privacy of the Android platform."

"The #1 concern that we have, based on conversations with our customers, is the reliance on anti-virus and anti-malware."

Brett Hansen,
VP & GM, Client Software & Security Solutions, Dell

Top Security Priority: Network Detection and Response

Chris Morales of Vectra Networks on Business Takeaways

The network is much more than just the sum of its endpoints, and the imperative to secure everything has led to network detection and response emerging as a top priority for many organizations, says Chris Morales of Vectra Networks.

WATCH ONLINE

The Changing Landscape of Dark Web Identities

Monica Pal of 4iQ on Data Breach Trends

While mega data breaches gain the most attention, the long tail of smaller breaches is largely ignored. Monica Pal of 4iQ shares findings on recent breach trends.

WATCH ONLINE

Helping Smaller Businesses Mitigate Risks

Dan Smith of Zeguro on Fusing Cybersecurity, Insurance

Small and midsize organizations are no less vulnerable to cyberattacks than large enterprises. Dan Smith of Zeguro outlines an approach for these organizations that fuses cybersecurity with insurance.

WATCH ONLINE

Identity Security and the Quest for Zero Trust

Stephen Cox of SecureAuth on the Passwordless Future

Forget inside/outside the perimeter when mitigating risks. That's the notion behind "zero trust," which means applying risk-based controls to safeguard access, says Stephen Cox of SecureAuth.

WATCH ONLINE

(from left) Kalinda Raina of LinkedIn, J. Trevor Hughes of IAPP and Ruby Zefo of Uber with moderator Tom Field

Adapting to the Privacy Imperative

Panel of Experts Addresses Critical Issues

In the wake of the EU's General Data Protection Regulation and other legislation, privacy suddenly is the hot topic within enterprises and governments alike. A panel of experts discusses the privacy imperative and what it means for security.

In a video interview at RSA Conference 2019, the panelists discuss:

- The current state of privacy within the enterprise;
- How GDPR has changed the conversation;
- How this new conversation impacts the roles of privacy and security professionals.

WATCH ONLINE

"I think GDPR has been a real game-changer.

"We need to evolve how we're enabling the security practitioners and the types of controls, and frankly where those controls live."

Jeff Reed,
SVP of Product, Cisco

GRC: A Status Report

Matt Kunkel of LogicGate Offers Update on Governance, Risk Management and Compliance

How are governance, risk management and compliance changing as a result of evolving privacy regulations? Matt Kunkel of LogicGate offers an update.

WATCH ONLINE

How IAM Is Evolving

John Notman of OpenText on the Interconnected Identity Ecosystem

How are identity and access management systems evolving? John Notman of OpenText describes how to deal with the interconnected identity ecosystem.

WATCH ONLINE

Why Empowering Developers Is Vital

Infosys **Vishal Salvi** on Why DevSecOps Is a Game Changer

Infosys is looking at DevSecOps as an organization change management requirement, and it needs to be driven as a movement, says Vishal Salvi, the company's CISO.

WATCH ONLINE

3 Hot Legal Topics at RSA Conference 2019

Attorney **Kimberly Peretti** of Alston & Bird on Indictments, Breach Response and More

What's hot on the cybersecurity legal front? For starters, in 2018, the U.S. Department of Justice indicted twice as many alleged state-sponsored attackers than it had ever indicted, says Kimberly Peretti of Alston & Bird.

WATCH ONLINE

Beyond 'Black Box' MSSP Security: How to Get the Most

Matt Peters of Expel Describes Hybrid Approaches to Security Operations

For a managed security service provider to deliver maximum value for customers, it needs to provide a hybrid approach that delivers not only actionable security information but also context, says Matt Peters of Expel.

WATCH ONLINE

The Business Case for Data Diode Security

Mike Timan of Owl Cyber Defense on One-Way Links for Data

To help ensure that their sensitive data cannot be exfiltrated, some organizations have adopted data diodes, which are hardware devices designed to provide a one-way link to stop exfiltration or block remote attackers, says Mike Timan of Owl Cyber Defense.

WATCH ONLINE

Bringing Operational Technology to the Forefront

Dawn Cappelli of Rockwell Automation on Why OT Security Should Be a Priority

Many third-party risk programs address information technology but not operational technology, says Dawn Cappelli of Rockwell Automation, who discusses why OT security should be a priority.

WATCH ONLINE

The Chaotic Threat Landscape: A Risk Mitigation Strategy

Tim Brown of SolarWinds on the Essential Steps

The security threat landscape is getting ever more chaotic, says Tim Brown of SolarWinds, who discusses risk mitigation strategies.

WATCH ONLINE

From Left: Mathew Schwartz, John Fokker and Raj Samani

The Art of the Steal: Why Criminals Love Cyber Extortion

McAfee's **Raj Samani** and **John Fokker** Review the Latest Threats

Criminals continue to target organizations and individuals with extortion schemes, such as by infecting targets with Ryuk and GandCrab ransomware, say Raj Samani, chief scientist of McAfee, and John Fokker, McAfee's head of cyber investigations.

In a video interview at RSA Conference 2019, Samani and Fokker discuss:

- Extortion schemes;
- The business model behind GandCrab and Ryuk ransomware;
- IoT smart lock security: A positive coordinated-fix story;
- The anti-ransomware No More Ransom initiative.

WATCH ONLINE

"We see a lot of increasingly targeted attacks, where criminals take a lot more time to do reconnaissance on their targets and hit them with far higher demands."

Jon Oberheide,
CTO, Duo Security

How the Remote Workforce Is Changing the Threat Landscape

Duo Security's **Jon Oberheide** on Securing Access to Devices, Cloud Services

Today's workforce increasingly works remotely and relies on a variety of devices and cloud services to accomplish their jobs. Organizations must support and secure this push, or they risk driving employees to adopt less secure - or corporate-managed - forms of shadow IT, warns Jon Oberheide of Duo Security, a Cisco company.

> "Organizations were being disintermediated by their user populations."

In a video interview at RSA Conference 2019, Oberheide discusses:

- Security challenges posed by a workforce that increasingly works remotely;
- How "bring your own device" security concerns and challenges have evolved;
- The "zero trust" principle.

WATCH ONLINE

Hackers Always Take the Easy Way In

Otavio Freire of SafeGuard Cyber on Digital Risk Protection

Although organizations need to worry about phishing, malware and other inbound threats, they must also be aware that social media accounts pose an increasing risk - and they need to be monitored and locked down, says Otavio Freire of SafeGuard Cyber.

WATCH ONLINE

Moving Away From the Redundancy of Perimeter Defense

Follow Data Wherever It Flows, Says **Ajay Arora** of Vera Security

Too many organizations continue to approach security with a "perimeter defense" mindset, despite enterprise networks long having moved past on-premises data centers to myriad cloud services, says Ajay Arora of Vera Security.

WATCH ONLINE

IAM in the Era of Automation

Ameet Shah of OpenIAM Describes the Current State of the Industry

As the attack surface expands through the cloud and IoT, the market for identity and access management is also growing, says Ameet Shah of OpenIAM.

WATCH ONLINE

Why Email Is Still So Vulnerable

David Wagner of Zix Shares Insights on Email and Office365 Security

Email remains the top threat vector for organizations. And while the move to cloud-based solutions has significantly improved email security, environments such as Office365 have their own complexities that need to be addressed, says David Wagner of Zix Corp.

WATCH ONLINE

The Mobile Application Security Quandary

John Aislen on Aligning Mobile App Dev to Security and Compliance

The need for enhanced mobile application security is being driven by increasingly powerful mobile devices and the ubiquitous availability of bandwidth, says John Aisien of Blue Cedar.

WATCH ONLINE

Why Security Is a Critical Safety Parameter for Operational Technology

Fortinet CISO **Phil Quade** on the Role of Cybersecurity in IT-OT Integration

The operational technology world is focused on two things: safety and reliability. But with increasing IT-OT integration, cybersecurity needs to be considered the third leg of the stool, says Phil Quade of Fortinet.

WATCH ONLINE

Network Security: The Next Generation

Jesse Rothstein of ExtraHop on the Need for Fewer, More Powerful Tools

The traditional information network is undergoing radical change, and so is the approach to network security. Jesse Rothstein of ExtraHop discusses the present and future of enterprise network security.

WATCH ONLINE

The Data Challenge: Security at Unprecedented Scale

Stephen Cavey of Ground Labs on Identifying, Securing Sensitive Data

By 2025, the volume of data is projected to grow by a factor of 10. How can enterprises hope to identify and secure sensitive data at the speed of business? Stephen Cavey of Ground Labs shares insights.

WATCH ONLINE

Alejandro Lavie

Establishing a Single View of Your Technology Landscape

Alejandro Lavie of Flexera on Data Visibility in a Multicloud Enterprise Environment

Gaining a holistic view of corporate data in today's multicloud world is a challenge, says Alejandro Lavie of Flexera, who describes a path to establishing a single view.

> "Visibility is one of the biggest challenges that we see out there."

In a video interview at RSA Conference 2019, Lavie discusses:

- The single most important topic impacting IT in organizations today;
- Why data visibility remains a problem;
- How organizations can achieve a common view.

WATCH ONLINE

"Automation is the first step toward full-blown machine learning."

Derek Manky,
Chief of Security Insights,
Global Threat Alliance, Fortinet

Todd Moore

The Challenges of Encryption in the Cloud

Gemalto's **Todd Moore** Offers Key Management Insights

Managing the lifecycle of encryption keys in the cloud is a complex process, says Todd Moore of Gemalto, who offers tips.

In a video interview at RSA Conference 2019, Moore discusses:

- Challenges with cloud encryption;
- Complexities with major offerings in the market;
- Recommendations and predictions.

WATCH ONLINE

> "A lot of times when people move to the cloud, they lose control of that information and become beholden to the cloud provider."

Al Ghous,
Senior Director of Cybersecurity,
GE Digital

Security's Role in Digital Transformation

GE Digital's **Al Ghous** on How CISOs Can Influence the Change

Security has the opportunity - or challenge - to help drive digital transformation within the enterprise. Al Ghous of GE Digital describes how security leaders can maximize their influence and avoid potholes.

"Help develop the [digital transformation] strategy, don't just be a part of it."

In a video interview at RSA Conference 2019, Ghous discusses:

- How security leaders can drive digital transformation;
- Potholes to avoid;
- Unique challenges for enterprises "born digital."

WATCH ONLINE

"What [users] want is privacy, and they're not really able to get it; so what I'm proposing is a concept of privacy through obscurity."

Mike Kiser,
Strategist and Evangelist, SailPoint

Kyle Metcalf,
CEO,
Inspired eLearning

Improving Security Awareness Training

Kyle Metcalf of Inspired eLearning on the Key Elements of Success

Security awareness training is typically an Achilles heel for enterprises. But Kyle Metcalf of Inspired eLearning believes he's found the elements that create an effective training solution.

In a video interview at RSA Conference 2019, Metcalf discusses:

- The training challenge;
- Elements of a successful program;
- Details of his company's Security First solutions.

WATCH ONLINE

"Those that follow our instruction, direction and best practices tend to see dramatic reductions in folks clicking on phishing emails."

Defending Against Malicious and Accidental Insiders

Veriato's **Patrick Knight** on New Strategies for Insider Threat Protection

Malicious and accidental insiders alike have drawn renewed attention to the insider threat. Patrick Knight of Veriato offers new insight on the scale of the problem and how to tackle it.

WATCH ONLINE

A Shift to Endpoint Prevention and Response

Nyotron's **Nir Gaist** on What Distinguishes This New Strategy from EDR

Evolving from endpoint detection and response, security vendor Nyotron has a new approach called endpoint prevention and response. What's the distinction? CTO Nir Gaist explains the strategy.

WATCH ONLINE

Rethinking Cybersecurity Education

Circadence's **Keenan Skelly** on How Training Needs to Be Delivered Differently

Many security leaders recognize the flaws in traditional awareness training, but what is anybody actually doing about it? Keenan Skelly of Circadence describes a new approach that she believes has changed the cybersecurity education paradigm.

WATCH ONLINE

CrowdStrike's 2019 Global Threat Report

CTO **Dmitri Alperovitch** Reviews Key Findings

CrowdStrike is out with its 2019 Global Threat Report, which includes a ranking of the most dangerous nation-state adversaries. The company's CTO, Dmitri Alperovitch, discusses the report's key findings about threats and threat actors.

WATCH ONLINE

More RSA Conference 2019 Content from ISMG

Cybersecurity Comes to the Mid-Market
Phil Reitinger of the GCA and Jon Brickey of Mastercard Discuss Cybersecurity Toolkit

The Need to Focus on Detection, Remediation
Nick Hayes of IntSights on Changing Priorities

Essentials of Supply Chain Security
Panorays CEO Matan Or-El on an Automated Approach to Defense

Destructive Cyberattacks Surge
Attackers Move to Counter Incident Responders, Says Carbon Black's Rick McElroy

Investment Adviser's View of Cybersecurity Market
Brad Topchick of Mooreland Partners on the Trends Driving 2019 Growth

The Convergence of IT and OT: The Cyber Implications
Damiano Bolzoni of Forescout on New Cybersecurity Concerns for Industrial Devices

Is Internet of Things Security Getting Worse?
Pen Test Partners' Ken Munro Sees IoT Problems Mounting

Perpetual 'Meltdown': Security in the Post-Spectre Era
SonicWall's Bill Conner on Side-Channel Attacks and Other Emerging Threats

Critical Infrastructure: Economic Warfare Risks
Adam Isles of the Chertoff Group on How to Improve Defense, Resiliency

The Critical Need for Application Security
Jeff Williams of Contrast Security on Self-Protecting Software

Dealing With Security Analyst Turnover
Mike Armistead of Respond Software Outlines How Robotic Decision Automation Can Help

Inside the Cybercrime Support Network
Kristin Judge, CEO of the Cybercrime Support Network, Discusses Victim Resources

Tips on Building a Security Program
Rick Holland of Digital Shadows on Starting From Scratch

Building More Robust Fraud Detection Engines
Onfido's Parker Crockford Discusses Fraud-Fighting Challenges

The Impact of Digital Transformation on Security
Kory Daniels of Trustwave on Scaling Security at the Speed of Business

Authenticating in the Age of IoT
Nok Nok Labs' Philip Dunkelberger on Why Traditional Authentication Won't Work

GDPR: Data Breach Notification 101
Brian Honan of BH Consulting on When to Notify - or Not

The Far-Reaching Implications of PSD2
Angie White of iovation Discusses How the New Directive Could Compare With Impact of GDPR

Why Insider Threats Are Still a Critical Problem
Verizon's Ashish Thapar Discusses the Evolving Threat Landscape

More RSA Conference 2019 Content from ISMG

Broadcom Executive on Acquisition of CA Technologies
Clayton Donley on How Security Ties Into Broadcom's Vision

What Makes a DevSecOps Program Elite?
Sonatype's Derek Weeks Unveils Results of 2019 Survey

AT&T Cybersecurity Sets Sights on Threat Intelligence
Javvad Malik on New Entity's Role in Cybersecurity Market
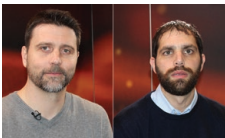
The Art and Science of Cybersecurity Research
Wade Baker and Jared Ettinger on How to Separate Pure Research From Marketing

Culture Change and Awareness: CSOs' Ultimate Duty
Master the Basics and Share Strategies Too, Says Vocalink's Andrew Rose

Stepping Up to the Board
Joyce Brocaglia on How BoardSuited Prepares Security Leaders

Dark Web Intelligence-Gathering: Why Privacy Matters
Danny Rogers of Terbium Labs Says Organizations Often Gather Regulated Data

Watch all 150+ interviews online
View over 150 interviews with the foremost thought leaders in security today as part of our ongoing coverage of the RSA Conference: **www.databreachtoday.com/rsa-conference**

15 Highlights: RSA Conference 2019

Cybersecurity 'Things Can Only Get Better' as Conference Marks Its 28th Year

BY MATHEW SCHWARTZ | 🐦 @euroinfosec

Calm before the RSA opening keynotes

More than 42,000 attendees visited San Francisco's Moscone Center in March for RSA Conference 2019.

The event celebrated multiple firsts, including a newly rebuilt Moscone Center for holding all of those attendees; a new full-day track, hosted by Bruce Schneier, focusing on public interest technology; as well as a public commitment by RSA and its sponsors to put more women front and center on the stage of what is arguably the world's most high-profile cybersecurity conference.

28th Annual RSA Conference
Not for the first time, the keynotes and briefings at the annual RSA conference - now in its 28th year - covered a massive array of topics. Sessions offered insights on privacy, hackers, cyber extortion, machine learning, artificial intelligence, human psychology, legal matters, career advice and internet-connected device concerns.

But first, the information security conference started with a bit of spectacle.

Prime Subject? No Mystery
One reason to get to the 8 a.m. keynote presentations on the Tuesday when the RSA briefings kicked off: The guest stars.

Enter Helen Mirren, star of stage and screen, who delivered an opening monologue praising the cybersecurity community for its collective efforts.

"Together you stop the cyber underworld from growing out of control. ... You are a hero," Mirren told the audience members.

'Things Can Only Get Better'
RSA turned up the British dial even more, as members of the cybersecurity community joined a gospel choir onstage to deliver their rendition of British pop singer Howard Jones' "Things Can Only Get Better."

Synergy alert: Better is also the theme of this year's conference, featured everywhere from the conference billboards to bags.

Women Own the Stage
One of the things the RSA conference strove to do better this year was to feature more women in speaking roles. Whereas previous years had many all-male lineups, often featuring executives from RSA, McAfee and Microsoft, followed by all-male participants in the Cryptographer's Panel, this year's program included much more female participation.

At the opening keynote presentations on March 5, Niloofar Razi Howe, a cybersecurity strategist and entrepreneur, was featured along with RSA President Rohit Ghai, looking at how cybersecurity must evolve to meet the needs of tomorrow's society, be it privacy or addressing energy and water shortages. But above all, security must be trustworthy.

"Trust does not require perfection. It requires transparency, accountability, honesty and reliability," Howe said

Security Versus Dancing Cats
But it's 2019 and clearly, much about cybersecurity could be better.

"We suck at remembering passwords. We struggle to process large amounts of data. And yes some of us still click on dancing cat videos," RSA's Ghai told the audience.

Internet-Connected Device Challenges
Meanwhile, Matt Watchinski, vice president of the global threat intelligence group for Cisco Talos, contemplated the sheer number of internet-connected devices that will soon exist, estimating it will hit 250 billion by 2020. "Clearly I'm going to need more pockets for all of these devices," he said.

Liz Centoni, general manager for Cisco IoT, outlined the clear and present cybersecurity dangers. "It's not unusual for customers to tell me that they don't know 40 to 50 percent of what's in their environment," she said.

RSA: Something Missing
Something else that could have been better: The U.S. State Department getting its visa act together.

Notably absent from this year's RSA, including its annual Cryptographer's Panel: Adi Shamir, the "S" in the RSA public-key cryptosystem, which Ron Rivest, Shamir and Leonard Adleman developed in 1977.

Addressing the conference via a prerecorded message, Shamir, an Israeli national, said his request for a U.S. tourist visa had not been

Missing from this year's Cryptographer's Panel: Adi Shamir, who "spoke" at the opening RSA Conference 2019 keynotes via a prerecorded video, from Israel

The refurbished Moscone Center played host to RSA Conference 2019 in San Francisco.

approved or denied. If the U.S. couldn't get its act together, Shamir suggested that RSA take the show somewhere else.

Shamir said he'd been planning to present new research on the security of AES. "I'll have to break the news at some other time and place," he said.

Choices, Choices

How's this for choice? Four days of briefings, more than 30 keynotes - including Tina Fey on the closing day - as well as choosing from 740 speakers, via presentations at Moscone Center - North, South, West - and the Marriott Marquis.

Of course, there are some things in life you can't control - namely, the weather.

Thankfully, RSA Conference 2019 avoided last year's unrelenting deluges. Mostly.

Moscone Gets a Refresh

The long-running renovation of Moscone Center North and South has finally concluded, resulting in new buildings that feature more open and well-lit interiors.

Unfortunately, the Marriott Marquis remained a construction zone, with hotel staff resorting to using paths of colored tape in an attempt to route conference goers and hotel guests alike past temporary walls.

700 Exhibitors

RSA Conference 2019 also featured more than 700 exhibitors across the redesigned Moscone North and South exhibition halls.

Feds Focus on Chinese Counterintelligence

No information security conference these days would be complete without focusing on nation-state hackers. While the specter of Russia's ongoing attempts to interfere in Western elections ran throughout the show, FBI Director Christopher Wray used an opening keynote slot to hammer home the threat posed to the U.S. by China.

In a conversation with Lawfare's Susan Hennessey, Wray noted that nearly every FBI office has an investigation underway that looks into alleged Chinese counterintelligence operations. Wray said that after returning to the bureau from a private law practice two years ago, he was surprised by the sheer scale of China's counterintelligence efforts.

"There is nothing like it. I am not someone who is prone to hyperbole, but ... the thing that shocked me was the breadth, depth and the scale of the Chinese counterintelligence," Wray told the RSA audience.

Experts Dissect the Latest Trends

What's the best way to take the pulse of all the other topics that are on information security professionals minds? One proven strategy: See what they have to say. To that end, Information Security Media Group conducted video interviews with more than 150 information
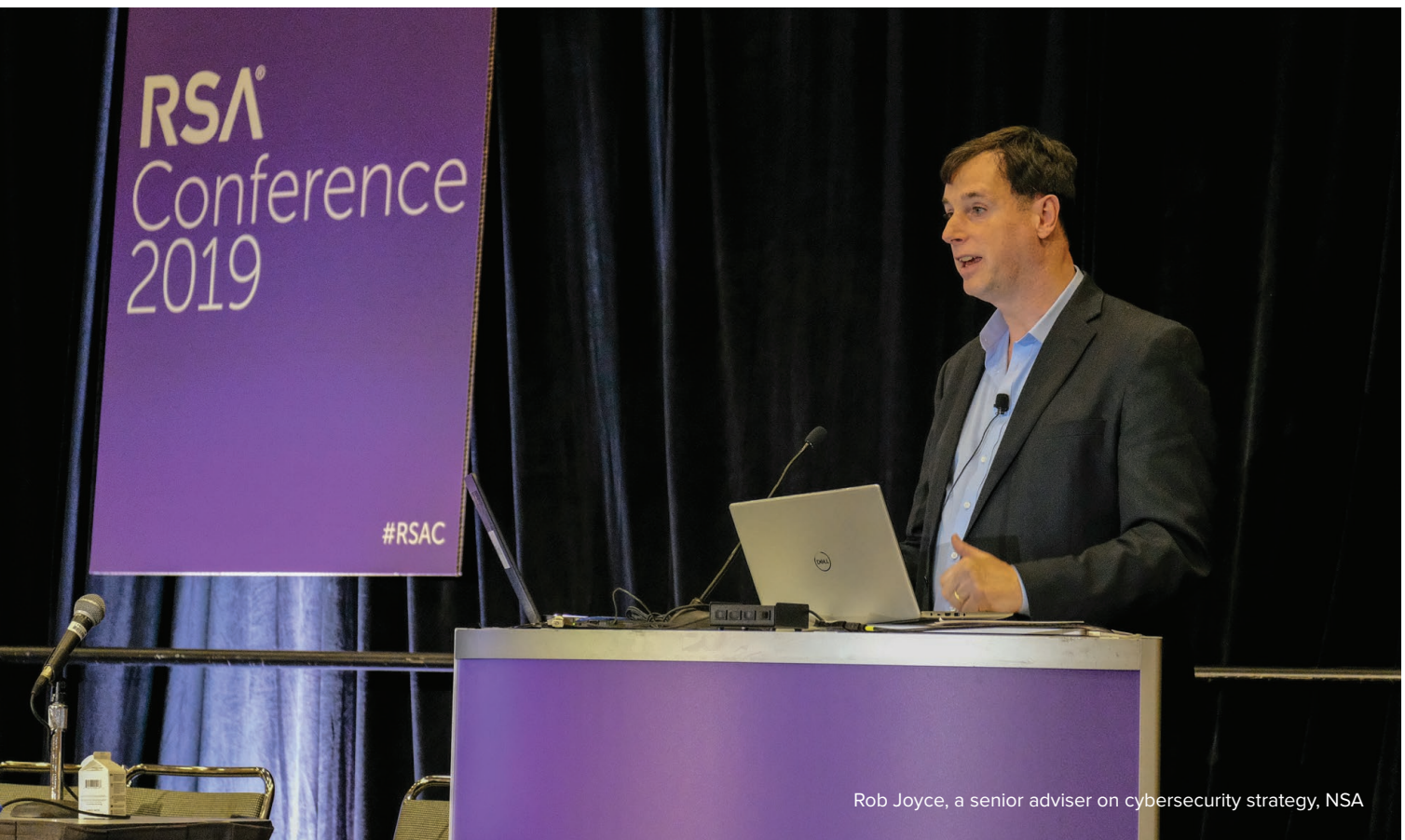
Rob Joyce, a senior adviser on cybersecurity strategy, NSA

security practitioners, including numerous CISOs, as well as executives, threat researchers, leading legal experts and more.

On the agenda: Recent mergers and acquisitions, including NTT Security buying WhiteHat Security as well as what's in store for since AT&T just rebranded its AlienVault acquisition as AT&T Cybersecurity.

Meanwhile, practitioners paid close attention to matters pertinent to their role as CISOs.

Former CISO Thom Langford spoke about how he'd hit bottom and battled his way past burnout, while CSO Andrew Rose talked about how he'd been putting into practice many of the great ideas he gathered while serving as a Forrester analyst, most recently at Vocalink, which is a MasterCard company.

Beyond that, topics ranged far and wide, including the privacy imperative now facing organizations, lessons learned from GDPR notification and threat researchers reviewing why cyber extortion - and especially more advanced phishing - seems unstoppable, as does U.S. bank card fraud.

Experts from industry and law enforcement also shared the latest insights into cybersecurity awareness and upskilling, as well as how the FBI is battling election interference attempts.

NSA Offers a Free Tool

"Psst - hey buddy, want a free reverse-engineering tool?"

So went the pitch from the National Security Agency's Rob Joyce, who took to the RSA briefing stage to announce the release of a home-built tool - Ghidra - from the agency for reverse-engineering software (see: NSA Pitches Free Reverse-Engineering Tool Called Ghidra).

"For the record, there's no backdoor in Ghidra," he said, prompting laughter. "This is the last community [to which] you'd want to release something with a backdoor."

Joyce said the tool has been built by the NSA to meet very particular requirements. "We use it across the two main missions of the NSA: cybersecurity and foreign intelligence," he said. The software helps with security validation - ensuring that a box or device does what it says it does, and nothing more - as well as malware analysis, discovering vulnerabilities and simply taking a deep dive into any type of software.

"Doing software reverse-engineering is like working a puzzle - you're given a binary and you're trying to get back to an understanding of what it is and what it does," Joyce said.

While the tool is now free and in the public domain, Joyce did admit to having some ulterior motives: The NSA wants to foster more skilled interns that it can turn into salaried employees.

RSA keynoters

First, however, it wants to help students learn to become better reverse engineers.

"If I go to a school and I see Ghidra, that [will be] a huge measure of success," Joyce said. "I'll be really transparent: That education also helps us."

More Cybersecurity Professionals Please

Better education isn't just being demanded by just NSA. It's a truism of the field that more needs to be done, not just to educate professionals but to produce more of them.

For example, ISACA, the international professional association focused on IT governance, conducts an annual survey of cybersecurity professionals.

No surprise about the findings: Businesses say they're desperately seeking more cybersecurity professionals.

Backdoors Are Still Bad

Word of warning to cybersecurity professionals: Be responsible.

That's because backdoors are back. Or rather, they never left. And the annual Cryptographer's Panel on the opening morning hit the topic hard, launching a broadside against backdoors and those who love them or facilitate them, on the heels of Australia having passed controversial legislation that can send developers to jail if they don't build government-mandated backdoors into software.

"The laws of mathematics may be all well and good, but the laws of Australia apply in Australia," said cryptographer Whitfield Diffie.

Paul Kocher said the matter involves a question of ethics: "If anyone should go to prison, It should be developers who sneak backdoors into their products. Secret backdoors are kind of like pathogens, and governments have done a terrible job of not managing them," he said, referring to how NotPetya was apparently a collection of exploits built by the NSA, which lost control of them.

"People in computer science are realizing more and more that this ability to draw on computation is giving us an immense amount of power, but also responsibility," said Shafi Goldwasser, director of the Simons Institute for the Theory of Computing.

"The road to hell is paved with good intentions," said Ron Rivest, the "R" in the RSA cryptosystem. ■

Behind the Scenes: ISMG at RSA Conference 2019

Information Security Media Group, media partner at RSA Conference 2019, was busy conducting video interviews with top leaders in information security, risk management and privacy. Here's a look at the team behind the scenes.

Left: ISMG's Nick Holland prepares for video interview; Right: ISMG's Tom Field interviewing Amit Elazari Bar On and Lisa Ho.

Above: ISMG's Mathew J. Schwartz; Right: CEO Sanjay Kalra and GM Mike D'Agostino review the interview schedule.
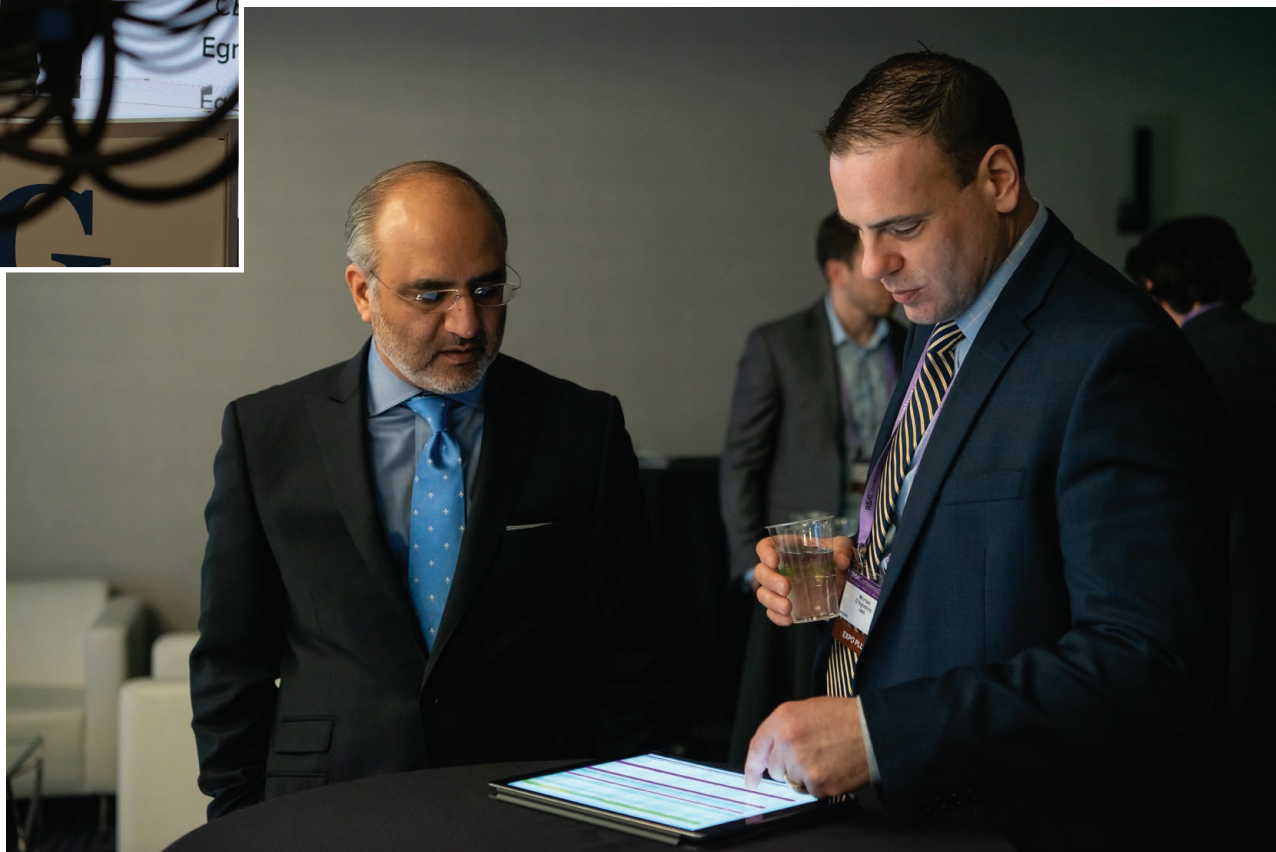
Left: ISMG's Tom Field (left) with Tomer Weingarten of SentinelOne; below: ISMG's Varun Haran with Sam Curry of Cybereason

Left: CTO Mohan Koo stands in ISMG Studio; Above: ISMG CEO Sanjay Kalra (right) with the FBI's MK Palmore; Bottom right: ISMG's Nick Holland (right) with Laurence Pitt of Juniper Networks.

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Above: ISMG at RSA 2019:
From left: Michael Gee, Tristan
Collesano, CEO Sanjay Kalra,
Robert Dowe, Jason Asch and Tom
Field.

Above: ISMG Executive Editor
Mathew Schwartz on camera; Left:
Mathew Schwartz with Ann Sung
Ruckstuhl of Unisys.

Above (from left): Stephen Katz, the world's first CISO, with ISMG's Sanjay Kalra and Tom Field; below: ISMG's Scott Ferguson and Mathew Schwartz.

About ISMG

Information Security Media Group (ISMG) is the world's largest media organisation devoted solely to information security and risk management. Each of our 28 media properties provides education, research and news that is specifically tailored to key vertical sectors including banking, healthcare and the public sector; geographies from North America to Southeast Asia; and topics such as data breach prevention, cyber risk assessment and fraud. Our annual global Summit series connects senior security professionals with industry thought leaders to find actionable solutions for pressing cybersecurity challenges.

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