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#MCSC19

SECURITY NETWORK MUNICH
PRESENTS

# MCSC

MUNICH CYBER SECURITY
CONFERENCE 2019

## Security Meltdown –
## paradigm shift needed?

Hotel Bayerischer Hof
Munich, February 14, 2019
2:00 – 7:30 pm
Followed by Reception and Networking Party

In cooperation with:

ZD.B CENTER DIGITISATION. BAVARIA

Bavarian Ministry of Economic Affairs,
Regional Development and Energy

Munich Security Conference msc
Münchner Sicherheitskonferenz

This conference is sponsored by:

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DW    The Security Times    Capital
WIRTSCHAFT IST GESELLSCHAFT

## Distinguished Guests,

Occurrences of cyber crime have long since become commonplace. They are making headlines more often than any of us would like. Rightly so, because cyber crime has far-reaching consequences. It is more than an attack on the privacy of citizens and companies. It also fuels resentment of digital technologies. Not least, these criminal schemes cause extensive financial damage. Experts estimate the annual business losses due to cyber crime at more than USD 660 million worldwide. There are many indications that this amount will continue to increase. We cannot afford to sit back and watch. That is why cyber security is at the top of the Bavarian state government's political agenda.

We want to protect the economy against security risks on the one hand and, on the other hand, raise awareness of the current challenges in this area. And we want to strengthen Bavaria's position as a leading IT security industry site. Here, the industry can count on the Bavarian state government's support. We will do our part to ensure that innovative IT security technologies will increasingly come from Bavaria in the future.

The thematic platform for cyber security at the Center Digitisation Bavaria (ZD.B) is a key element of our commitment. The Security Network Munich is closely linked. It brings Bavaria's IT security companies together with the users of these technologies. The Security Network Munich is once again hosting the MUNICH CYBER SECURITY CONFERENCE this year. This event provides an ideal framework to jointly establish, maintain and promote cooperation and the transfer of knowledge between research, the industry and users.

I wish you an interesting, exciting and successful Munich Cyber Security Conference 2019. The thought-provoking impulses of this conference will make a major contribution to innovative new IT security ideas. Let us work together to contribute to an even more successful and especially more secure digital 4.0 world.

**His Excellency Hubert Aiwanger**
Bavarian State Minister for Economic Affairs, Regional Development and Energy

**Bavarian Ministry of Economic Affairs, Regional Development and Energy**

**Hubert Aiwanger, MdL**

**MCSC** MUNICH CYBER SECURITY CONFERENCE **2019**

This conference is under the patronage of the Bavarian State Minister for Economic Affairs, Regional Development and Energy, **Hubert Aiwanger**, and the Chairman of the Munich Security Conference, Ambassador **Wolfgang Ischinger**.

## Dear participants,

I am delighted that the eve of the 55th Munich Security Conference serves as an occasion for so many distinguished experts in this field to assemble at the Munich Cyber Security Conference MCSC again this year.

The ever-increasing significance of cyber security has been reflected in a growing range of activities on the MSC's calendar – both at our main conference and beyond. Over the past years, our Cyber Security Summits have convened at hubs of digital innovation around the world, including Silicon Valley, Tel Aviv and Tallinn. True to our conviction that cyber security is an issue to be addressed at the highest levels, both in the private sector and in govern-ment, the Summits have brought together senior decision-makers with experts from academia and civil society. We are especially pleased that, as a platform for constructive dialogue, the MSC is acting as a launch pad for entirely new initiatives such as the "Charter of Trust", a cyber security pact between over a dozen companies inaugurated at the MSC 2018.

During this year's main conference, we will again host numerous events on cyber security and partner with prominent organizations, such as the Atlantic Council, the Carnegie Endowment for International Peace, Google, Microsoft, Facebook, Ernst & Young, and the Cyber Innovation Hub of the Federal Armed Forces.

Our partnership with the MCSC is an important part of our commitment to advancing the debate on cyber issues, and we look forward to a continued cooperation to enable more of these constructive and thought-provoking discussions.

I now wish you a fruitful exchange here in Munich, and encourage you to challenge each other and embrace new perspectives.
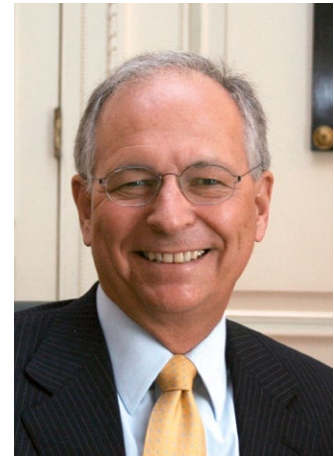
Sincerely yours,

**Wolfgang Ischinger**

Chairman of the Munich Security Conference

**Ambassador
Wolfgang Ischinger**

We are honoured to welcome **His Excellency Günther Oettinger**, Commissioner for Budget and Human Resources to the European Union as our guest of honour. Mr. Oettinger has been a dedicated supporter of the Munich Cyber Security Conference since its inception in 2015. He took an active role in promoting cyber security initiatives at the European Level and the establishment of the European Cyber Security Organisation (ECSO).

# FIFTH INTERNATIONAL MUNICH CYBER SECURITY CONFERENCE MCSC 2019

## Conference Moderator Brent Goff

### Deutsche Welle (Berlin)

Brent Goff is Chief News Anchor at DW News, the English-language television news network based in Berlin, Germany. Since 2016 Brent has hosted DW's flagship daily news program, "The Day with Brent Goff." Brent is an award-winning journalist and was nominated for an International Emmy Award for his programs which addressed the fallout of the NSA surveillance revelations for German-US relations. Brent has interviewed and reported on some of the leading global newsmakers of the day such as Whistleblower Edward Snowden, journalist Glenn Greenwald, 2014 Nobel Peace Prize Laureate Kailash Satyarthi & former German Chancellor Helmut Kohl. Brent can be heard on numerous German TV & radio stations, including DeutschlandRadio & Bayerischer Rundfunk, offering analysis of Transatlantic & American politics, business, and foreign policy. Brent holds an MA in German and European Studies from Georgetown University and BAs in German, Political Science and Journalism from the University of Missouri. He is fluent in German.

| Time | | |
|---|---|---|
| 2:00–2:40 pm | **Welcome** | Walter Schlebusch<br>Chairman Security Network Munich (Munich) |
| | **Opening Address** | His Excellency Sir Julian King<br>EU Commissioner for the Security Union (Brussels) |
| | **Keynote** | Alexander Evans OBE<br>Director Cyber, Foreign & Commonwealth Office |
| | **Impulse Speech** | Dirk Hoke<br>CEO Airbus Defence and Space (Munich) |
| 2:40–3:30 pm | **First Panel**<br>Human Factor<br>– Impact on Cyber Resilience?<br><br>Moderator: John Higgins<br>Senior Advisor Burson Cohn & Wolfe | Kiersten E. Todt<br>Managing Director Cyber Readiness Institute (New York)<br><br>Stefan Lüders<br>CIO CERN (Geneva)<br><br>Larry Clinton<br>President Internet Security Alliance (Washington D.C.)<br><br>Motohiro Tsuchiya<br>Keio University (Tokyo)<br><br>Stephan Micklitz<br>Director of Engineering Google (Munich) |
| 3:30–4:00 pm | **Break** | |
| 4:00–4:10 pm | **Impulse Speech** | Reinhard Ploss<br>CEO Infineon Technologies (Munich) |
| 4:00–4:20 pm | | |

| Time | Session | Speakers |
|---|---|---|
| 4:10–5:00 pm | **Second Panel**<br>Emerging Technologies –<br>Balanced Opportunities And Threats?<br><br>Moderator: Tyson Barker<br>Fellow Aspen Insitute Germany | Terry Halvorsen<br>CIO Samsung (Washington D.C.)<br><br>Rainer Baumgart<br>CEO Secunet (Essen)<br><br>Shue-Jane L. Thompson<br>VP/Partner, Cyber & Biometric, US Public Service IBM (Washington D.C.)<br><br>Norbert Gaus<br>EVP Siemens (Munich)<br><br>Gundbert Scherf<br>Partner McKinsey (Berlin) |
| 5:00–5:30 pm | **Break** | |
| 5:30–6:00 pm | **Spot on**<br><br>Moderator: Gregor P. Schmitz<br>Editor in Chief Augsburger Allgemeine | Bruno Halopeau<br>Head Cyber-Resilience, World Economic Forum's Centre for Cybersecurity<br><br>Bruce Schneier<br>Fellow and Lecturer Harvard Kennedy School (Cambridge, MA) |
| 6:00–6:10 pm | **Global View** | Latha Reddy<br>Co-Chair Global Commission on the Stability of Cyberspace, Former Deputy National Security Advisor of India (Dehli) |
| 6:10–6:20 pm | **Impulse Speech** | Ralf Wintergerst<br>CEO Giesecke+Devrient (Munich) |
| 6:20–7:10 pm | **Third Panel**<br>Residual Risk – Rethinking Frameworks And Governance?<br><br>Moderator: Tom Koehler<br>Partner Connecting Trust | Marina Kaljurand<br>Chair Global Commission on the Stability of Cyberspace (Tallinn)<br><br>Andreas Koenen<br>Head of Executive Department for Cyber Security, Federal Ministry of the Interior (Berlin)<br><br>Maria Vello<br>CEO Cyber Defence Alliance (London)<br><br>Raúl Riesco<br>Head of Intelligence and Industrial Control Systems at INCIBE (León)<br><br>Katie Moussouris<br>Founder and CEO Luta Security (Seattle) |
| 7:10–7:30 pm | **Reception Speech**<br><br><br><br>**Guest of Honour** | His Excellency Hubert Aiwanger<br>Bavarian State Minister for Economic Affairs, Regional Development and Energy (Munich)<br><br>His Excellency Günther Oettinger<br>EU Commissioner for Budget and Human Resources (Brussels) |
| 7:30–9:30 pm | **Reception and Networking Party** | |

# EDITORIAL



**Steve Durbin**

## Cyber Security Should Focus on Board Oversight and a Strong Security Culture

Cyber threats come in all shapes and sizes. Malicious actors – individual hackers, organized cybercrime rings, and state-sponsored hacker groups – launch spray-and-pray style attacks as well as targeting certain companies or types of organizations. Your cyber defense and security measures have to anticipate and counteract the particular threats most likely to impact your organization and its most valuable assets.

Unfortunately, that means there is no single recipe for cyber security success. There are, however, singularly damaging pitfalls to avoid. You must understand your specific risks, you can't neglect the fundamentals, and fostering a culture of security through consistently engaged leadership is paramount.

## Strong Security Culture is Built in the Boardroom

There has been a lot of discussion about the importance of board and executive involvement, but just about any CIO or CISO will tell you there's still work to be done. Board members need to lead by example, and by constantly communicating and showing that cyber security best practices are a top priority. One of the core tenets of modern corporate responsibility is protecting the privacy and integrity of customers' data – does everyone in your organization fundamentally "get" that? If not, figure out how to cultivate that as a company-wide value.

Companies are increasingly under scrutiny for how diligently they conduct governance, maintain board oversight, and respond to incidents. Organizations that don't prepare thoroughly – by defining and implementing an enterprise-wide strategy – will be increasingly likely to incur reputational and financial damage.

To start with, you should be requesting and receiving regular security briefings – and finding a way to ensure that you fully understand them. It means taking to heart that you are responsible for overseeing data breach prevention. Finally, it means that you must passionately and incessantly lead the charge to create a culture of security throughout your entire organization.

Covering all of the bases – defense, risk management, prevention, detection, remediation, and incident response – is more feasible when leaders contribute from their expertise and use their unique vantage point to help set priorities and keep security efforts aligned with business objectives. The Board of directors can provide more meaningful oversight if they understand the distinct role of each executive, how these roles are changing and where breaking down barriers and forging new paths could transform the enterprise response to both cyber challenge and opportunity.

## Opportunities and Innovations Present New Risks

The Internet provides an endless source of opportunity creation: new channels, cloud services adoption, and innovative business models. However, it also brings unexpected risks and unintentional consequences.

If an organization's senior executives don't understand cyberspace, they will either take on more risk than they would knowingly accept, or miss opportunities to further strategic business objectives. These organizations are more likely to suffer embarrassing incidents, and when they do, they will suffer greater and longer-lasting impact.

Additionally, understanding cyber risks and rewards is fundamental to trust. If organizations can't maintain a trusted environment in which to communicate and interact with their customers, their business could stall or even collapse. This is true of both engagement efforts, including social media and advertising, as well as transactions, including banking, shopping, reservations and subscriptions.

## Standard Security Measures Still the Key to Success

Business leaders recognize the enormous benefits of cyberspace and how the Internet greatly increases innovation, collaboration, productivity, competitiveness and engagement with customers. Regrettably, they have difficulty assessing the risks versus the rewards. One thing that organizations must do is ensure they have standard security measures in place – this includes a well rehearsed incident response plan.
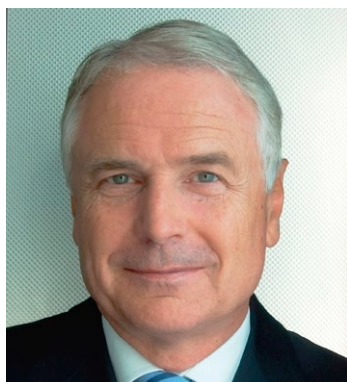
Organizations of all sizes need to ensure they are fully equipped to deal with these ever-emerging attacks on their business as well as their reputation. It may seem obvious, but the faster you are able to respond, the better your outcome will be. The challenge lies in identifying and following through with effective preparations and building your organization's capability for cyber resilience.

**Steve Durbin**

is Managing Director of the Information Security Forum (ISF).

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# HOST: SECURITY NETWORK MUNICH



### Dr. Walter Schlebusch

Chairman Security Network Munich (Munich)

Dr. Walter Schlebusch is Chairman of Security Network Munich and Member of the Advisory Board at Giesecke+Devrient (G+D). In his former role as CEO of G+D, Walter Schlebusch shaped and promoted the set-up of dedicated cyber security activities. He is a strong advocate of cyber security policies stressing the need for cooperation and innovation across all sectors in meeting digital challenges.
Walter Schlebusch currently serves as the Industry Speaker for the Cyber Security Platform at the Center Digitisation Bavaria (ZD.B) in Munich. He is a founding Member of United Europe, a pro-Europe Initiative of business people, politicians and analysts.
He studied engineering and graduated from the technical university in Aachen, Germany.

# OPENING ADDRESS:



### His Excellency Sir Julian King

EU Commissioner for the Security Union (Brussels)

Sir Julian King was appointed Commissioner for Security Union on the 19th September 2016.
He joined the Foreign & Commonwealth Office in 1985. He has held various positions, including: UK Ambassador to France (2016); Director General Economic & Consular (2014); DG of the Northern Ireland Office London and Belfast (2011); UK Ambassador to Ireland (2009); EU Commission Chef de Cabinet to Commissioner for Trade (2008); UK Representative on EU Political and Security Committee, (2004). Sir Julian is a graduate of Oxford University and the Ecole Nationale d'Administration, Paris.

# KEYNOTE:



### Dr. Alexander Evans OBE

Director Cyber, Foreign & Commonwealth Office

Dr Alexander Evans OBE is Director Cyber at the Foreign and Commonwealth Office. He was previously Britain's Deputy High Commissioner to India (2015-2018) and Britain's Acting High Commissioner to India (November 2015 to March 2016). Alexander previously led the United Nations Security Council Al Qaida/Taliban Monitoring Team from 2013 to 2015, appointed by UN Secretary General Ban Ki Moon. Alexander has served in the UK and US governments. He has served in Pakistan leading the UK's political work in Pakistan's Tribal Areas and in India where he led the political team in New Delhi. He served in Washington DC as a senior advisor to the late Ambassador Richard Holbrooke when he was US Special Representative for Afghanistan and Pakistan. Alexander has held academic appointments at Nuffield College Oxford and Yale University, where he taught international relations as a Senior Fellow. He is a former Henry Kissinger Chair in Foreign Policy at the Library of Congress and Bernard Schwartz Fellow at the Asia Society in New York. Alexander was educated at the London School of Economics, Yale and the School of Oriental and African Studies, where he obtained his PhD. He has written for Foreign Affairs and contributed to a number of books and academic journals. He is the author of 'The United States and South Asia' (New York: Asia Society, 2012).

# SPEAKERS

## Dirk Hoke
### CEO Airbus Defence and Space (Munich)

Dirk Hoke is CEO of Airbus Defence and Space since 1 April 2016 and a member of Airbus' Executive Committee. He joined Airbus on 1 January 2016 from Siemens, where he had been CEO of the Large Drives Business Unit since 2014. He has held various executive-level positions at Siemens since becoming CEO of the Cluster Western & Central Africa in 2008. Dirk Hoke's career spans 24 years and five continents, recurrently focussing on transportation and digitalisation. Starting in 1994 as R&D Engineer for process and software analysis at Renault in Paris to being promoted to President of Siemens Transportation Systems China in 2005; a position in which he made Siemens the largest foreign railway supplier in the country. At Siemens, he was also the first to set up a digital platform business in his role as CEO of the Industrial Solutions Division.
Dirk Hoke holds a degree in mechanical engineering from the Technical University of Brunswick, Germany. In 2010, Dirk Hoke became member of the Young Global Leader Class of the World Economic Forum and, in 2013, member of the Baden Baden Entrepreneur Talks.

## John Higgins
### Senior Advisor Burson Cohn & Wolfe (Brussels)

John Higgins has been the public face of the digital sector in Europe since November 2011 and speaks regularly on platforms and at conferences throughout Europe and beyond. He was Director General of DIGITALEUROPE, the association for the digital technology industry in Europe, until April 2017, following nine years leading its UK member association, Intellect, now TechUK. In spring of 2017 he became Chair of the Global Digital Foundation and a Senior Advisor to global communications company, Burson Cohn & Wolfe. He continues to chair DIGITALEUROPE's Brexit Advisory Council and is chair of the University of Warwick's European Advisory Board.
In 1995 he was appointed CEO of the Rocket Networks, a California based dot.com that provided the world's first online recording studios. He returned to the UK in 1998 and became Director General of the Computing Services and Software Association, one of Tech UK's predecessors. He holds a degree in Mathematics from the University of East Anglia and then a post graduate Diploma in Accounting and Finance. Early in his career he trained as a systems analyst, held senior positions with Ernst & Young and worked in Chicago with leading software company SSA. The Queen appointed him a Commander of the British Empire (CBE) in 2005 for his services to the UK IT industry.

## Kiersten E. Todt
### Managing Director Cyber Readiness Institute CRI (New York City)

Kiersten Todt is currently the Managing Director of the Cyber Readiness Institute, which convenes senior leaders of global companies to help small and medium-sized businesses improve their cybersecurity.  She is also the President and Managing Partner of Liberty Group Ventures, LLC. Ms. Todt advises senior executives and Boards on cyber risk management, including the development and execution of tabletop exercises. She also provides strategic advice and counsel to senior leaders in industry and government. Ms. Todt is the Scholar in Washington, DC of the University of Pittsburgh Institute for Cyber Law, Policy, and Security and serves on the Governor's Homeland Security Advisory Board for the State of Rhode Island. Ms. Todt most recently served as the Executive Director of the Presidential Commission on Enhancing National Cybersecurity. She has served in senior positions in the White House and in the United States Senate, where she drafted components of the legislation to create the U.S. Department of Homeland Security.

## Dr. Stefan Lüders

CIO CERN (Geneva)

Stefan Lüders, PhD, graduated from the Swiss Federal Institute of Technology in Zurich and joined the European Organization for Particle Physics (CERN) in 2002. Since 2009, he is heading the CERN Computer Security Incident Response Team as CERN's Computer Security Officer with the mandate to coordinate all aspects of CERN's computer security – office computing security, computer centre security, GRID computing security and control system security – whilst taking into account CERN's operational needs. Dr. Lüders has presented on computer security and control system cyber-security topics at many different occasions to international bodies, governments, and companies, and published several articles.

## Larry Clinton

President & CEO Internet Security Alliance (Washington D.C.)

Mr. Clinton literally wrote the book on cyber risk management – specifically the Cyber Risk Management Handbook published by the National Association of Corporate Directors, and endorsed by the US Government. Last year in conjunction with BSI the ISA produced German edition of the Handbook and a Spanish edition endorsed by the Organization of American States. The Global Information Security Survey found use of the Handbook leads to increased budgets, better risk management, closer alignment of cyber with overall business goals and creating a culture of security. Mr. Clinton has twice been named as one of the 100 most influential individuals in corporate governance.
He is also the author of the Cyber Security Social Contract, whose policy recommendations were endorsed both by the Republican Task Force on cyber security and were also the basis of President Obama's Executive Order on Cyber Security.
Mr. Clinton teaches a graduate course in cyber risk management at the Wharton School.
He has testified numerous times before Congress and the NATO Center for Cyber Excellence in Estonia and has been a featured expert in virtually every major US and many international media outlets.

## Dr. Motohiro Tsuchiya

Keio University (Tokyo)

Dr. Motohiro Tsuchiya is professor at Keio University Graduate School of Media and Governance in Japan. He is serving as deputy director at Keio University Global Research Institute (KGRI) from 2016. He is specialized in cybersecurity and other cyber issues. He joined the Global Commission on the Stability of Cyberspace as commissioner in January 2018. He is also senior adviser of the Pacific Forum in Honolulu. He authored Intelligence and National Security (Tokyo: Keio University Press, 2007, in Japanese), Cyber Terror (Tokyo: Bungeishunju, 2012, in Japanese), Cyber Security and International Relations (Tokyo: Chikura Shobo, 2015, in Japanese) and co-authored Cybersecurity: Public Sector Threats and Responses (Boca Raton, FL: CRC Press, 2012) and 30 other books. He earned his BA in political science, MA in international relations, and Ph.D. in media and governance from Keio University.

## Stephan Micklitz

Engineering Director for Privacy and Identity Google (Munich)

Stephan Micklitz is an Engineering Director for Privacy and Identity at Google in Munich. Stephan manages engineering teams across Europe and the US who work both on user-facing products and on internal infrastructure. These teams provide users with tools and controls to manage their privacy and security when using Google - helping them to keep their data secure and protect their privacy. Stephan's organization also supports teams across Google and Alphabet with tools and infrastructure to build respectful products for our users. Stephan joined Google in 2007 as a Software Engineer, and has been working on the Identity, Privacy and Security team since 2009. Stephan studied computer science at the TU München and completed his masters degree (Dipl. Inf.) in 2003. Prior to joining Google he worked for several software companies as an engineer and consultant for business software solutions.

## Dr. Reinhard Ploss

CEO Infineon Technologies (Munich)

Reinhard Ploss has been a member of the Management Board of Infineon Technologies AG since 2007. He has been CEO since October 1, 2012.

Reinhard Ploss was born on December 8, 1955 in Bamberg. He studied process engineering at the Technical University of Munich and in 1986 received his doctorate. He began his career at Infineon (Siemens AG until 1999) in the same year.

## Tyson Barker

Fellow Aspen Institute Germany (Berlin)

Tyson Barker is Program Director and Fellow at the Aspen Institute Germany responsible for the Institute's digital and cyber program. Barker comes to Aspen from the Brandenburg Institute for Society and Security (BIGS) where he worked on transatlantic cyber security policy. Prior to that, he served as Senior Advisor to the Assistant Secretary of State for European and Eurasian Affairs at the US State Department in Washington, D.C. from 2014 to 2015. Prior to joining State, he worked for 6 years at the Bertelsmann Foundation, most recently as the Director for Trans-Atlantic Relations where his portfolio included the European-American economic relationship, US-EU cooperation, the Congressional European Parliament Initiative (CEPI) and tracking rising political leaders in the US and Europe. He has written for numerous publications on both sides of the Atlantic including Foreign Affairs, Foreign Policy, Politico, the Atlantic, National Interest and Spiegel.

## Dr. Rainer Baumgart

CEO Secunet (Essen)

Dr. Rainer Baumgart has been with secunet since 1997. He joined the Board of secunet Security Networks AG when it became a listed company in 1999 and has been Chairman of the Board since 2001. Dr. Baumgart is head of the company's Public and Business divisions, and is also responsible for business development/strategy, compliance/auditing. The physics PhD has enjoyed a 20-year career in IT security, having previously held positions at RWTÜV AG and TÜV Informationstechnik GmbH.
At the European level, Dr. Baumgart is an active member of the ENISA (European Network and Information Security Agency) Stakeholder's Group.

## Terry Halvorsen

CIO / EVP IT & Mobile Communication B2G Business, Samsung (Washington D.C.)

Mr. Terry Halvorsen started with Samsung electronics on April first of 2017 as an Executive Vice President in the Business to Government group.  He has since been appointed as the Chief Information Officer and Executive Vice President IT and Mobile Business to Business group Samsung Electronics.
Prior to Joining Samsung Electronics, Mr. Halvorsen served as the Department of Defense Chief Information Officer from March 8, 2015 to February 28, 2017. He previously served as the Acting Department of Defense Chief Information Officer from June of 2014 until March of 2015. He was the Department of the Navy Chief Information Officer from November 2010 until May of 2014.
Mr. Halvorsen served as an Army intelligence officer active and reserve in a variety of assignments, including Operations Just Cause and Desert Storm.  He holds a bachelor's degree in history from Widener University and a master's degree in educational technology from the University of West Florida. He is a Rotary International Paul Harris Fellow and an Excellence in Government Leadership Fellow. He was awarded the Distinguished Presidential Rank Award for Civilian Executive Service in 2017.

## Dr. Shue-Jane L. Thompson

TVP/Partner, Cyber & Biometric, US Public Service IBM (Washington D.C.)

Dr. Shue-Jane L. Thompson is Vice President/Partner, Cybersecurity and Biometrics (C&B) Service Line for the IBM Global Business Services. She oversees cyber related technology innovation, solution integration and service delivery for the US DoD, Intel, Federal, State and Local clients. Moreover, she leads a group of highly qualified security professionals, providing advanced cyber capabilities as core of solution offerings and serves as a mission enabler for US top agencies.
Ms. Thompson has more than 30 years of experience in academia, commercial, government and international technology and business management, including winning and managing many large-scale IT, cyber, cloud and mission-operation programs. She has served in many executive positions for Corporate Strategic Campaigns, Service Line, Chief Technology Office, Line of Business, Account management, Business Development, Performance Excellence and Program Management.
She holds two Masters of Science degrees, a Doctoral Degree in Business Management, ABT* Ph.D. in Atmospheric Sciences and credentials from several Executive Training Programs.

## Dr. Gundbert Scherf

Partner McKinsey (Berlin)

Dr. Gundbert Scherf is a partner with McKinsey & Company's Berlin office. He is one of the leaders of McKinsey European Cyber Security Practice. He advises clients in the private and public sector on cyber security, digital strategy and transformation.
From 2014 to 2016 Mr. Scherf was part of the Ministry of Defence. During his tenure he drafted the strategy for cyberspace and developed the blueprint for the newly developed Cyber and Information Domain Command – a new service of 13,500 soldiers responsible for cyber defense and offense, intelligence, and information analytics.
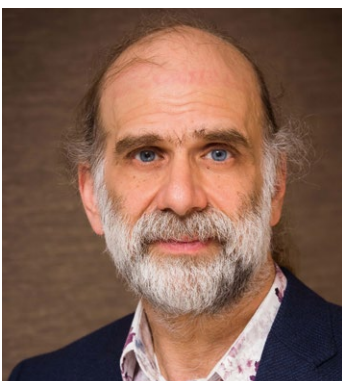Mr. Scherf is a Member of the Atlantik-Brücke, the Young Leaders, and was voted by Capital Magazin in its "40 under 40" in 2016 and 2017.

## Dr. Norbert Gaus

EVP Siemens (Munich)

Dr. Norbert Gaus, Executive Vice President at Siemens Corporate Technology, is responsible for Research and Development in Digitalization and Automation at Siemens. After earning a degree in electrical engineering from Technical University Munich, he worked initially as a research assistant at the German Aerospace Center. During that time he earned a Ph.D. in engineering from Ruhr University Bochum. He joined Siemens AG Corporate Technology in 1991. Between 1994 and 2001, Gaus held various positions in the Information and Communication Networks Group with the rank of Vice President. In the following four years, he served as President and CEO of Siemens Corporate Research Inc., Princeton, NJ, USA. From 2005 to when he assumed his current position, he held various executive positions in Siemens Healthcare, ultimately as CEO of the Customer Solutions Division (Sales and Service for Siemens Healthcare, HIS Business Unit) of Siemens Healthcare. Since May 2015 he is in his current position at Siemens Corporate Technology.

## Bruce Schneier

Fellow and Lecturer Harvard Kennedy School (Cambridge, MA)

Bruce Schneier is an internationally renowned security technologist, called a security guru by the Economist. He is the author of 14 books – including the best-seller Click Here to Kill Everybody – as well as hundreds of articles, essays, and academic papers. His influential newsletter Crypto-Gram and blog Schneier on Security are read by over 250,000 people. Schneier is a fellow at the Berkman Klein Center for Internet and Society at Harvard University; a Lecturer in Public Policy at the Harvard Kennedy School; a board member of the Electronic Frontier Foundation, AccessNow, and the Tor Project; and an advisory board member of EPIC and VerifiedVoting.org. He is also a special advisor to IBM Security and the Chief Technology Officer of IBM Resilient.

## Dr. Gregor Peter Schmitz

### Editor-in-Chief Augsburger Allgemeine (Augsburg)

Gregor is editor-in-chief of Augsburger Allgemeine, with a daily circulation of more than 300.000 one of the largest German newspapers. In 2018, he was selected as one of the "Journalists of the Year". Prior to that he served as Chief Political Editor and Berlin Bureau Chief of WirtschaftsWoche, Germany's leading business magazine.
From 2007 to 2013 Gregor was a Washington correspondent for DER SPIEGEL. He was part of SPIEGEL's WikiLeaks and NSA team and was awarded the Arthur F. Burns Prize and Henri-Nannen-Prize for his reporting. His first book, co-authored with George Soros ("Wetten auf Europa - Warum Deutschland den Euro retten muss, um sich selbst zu retten"), was translated into more than 10 languages.
He is a graduate of Harvard University (MPA) and Cambridge University (MPhil) and holds a law degree from Munich University. He is a member of the Atlantic Council, a Young Leader of the American Council on Germany and a McCloy Scholar of the German National Merit Foundation.

## Bruno Halopeau

### Head Cyber-Resilience, World Economic Forum's Centre for Cybersecurity

Bruno Halopeau is the Head of Cyber-Resilience at the World Economic Forum's Centre for Cybersecurity. He is a seasoned professional with twenty years of experience in driving secure architecture solutions projects in various industries. He has held various positions as managing consultant and as a team lead expert in the fight against cybercrime and terrorism in a Law Enforcement Agency on topics such as critical infrastructure protection, exploitation of emerging technologies for criminal gains, forensics and investigative techniques in cyberspace. He also led the development of an innovation strategy programme for law enforcement.
He has, furthermore, built expertise in crypto-currencies and BlockChain, encryption, digital identities and access management, incident response and building CERTs, intellectual property protection.
Bruno earned an MBA from Warwick Business School (2017), an MBA in strategic management and competitive intelligence from Ecole de Guerre Economique (2011) and an MSc from École Supérieure d'Informatique, Electronique, Automatique (1998).

## Latha Reddy

### Co-Chair Global Commission on the Stability of Cyberspace, Former Deputy National Security Advisor of India (Dehli)

Latha Reddy is the former Deputy National Security Adviser of India. In addition to assisting National Security Adviser Shiv Shankar Menon, Ms. Reddy was responsible for cybersecurity and other critical internal and external security issues. She also served as a Commissioner on the Global Commission on Internet Governance.
Ms. Reddy served in the Indian Foreign Service from 1975-2011. During her diplomatic career she served in Lisbon, Washington D.C., Kathmandu, Brasilia, Durban, Vienna and Bangkok. She served as Ambassador of India to Portugal (2004-2006) and to Thailand (2007-2009). She was Secretary (East) in the Ministry of External Affairs in Delhi (2010-2011) with overall charge of India's bilateral and regional relations with Asia. She was then appointed as India's Deputy National Security Advisor in the Prime Minister's Office from 2011-2013.
Ms. Reddy is involved with several organizations and think-tanks, both globally and in India. She is currently, among other positions, serving as a Distinguished Fellow in the EastWest Institute in the US, the Observer Research Foundation in India, and the Centre for International Governance Innovation in Canada.

## Ralf Wintergerst

Chairman of the Management Board and CEO
Giesecke+Devrient (Munich)

Ralf Wintergerst was appointed to the Management Board of Giesecke+Devrient (G+D) in 2013 and became its Chairman in 2016. Prior to this, he held senior management positions across the company, which he joined in 1998. In addition to his role with G+D, Wintergerst advises the German government on security issues and co-chairs a dedicated security platform within the German Digital Summit Initiative with Federal Minister of the Interior Horst Seehofer. He serves on the board of BITKOM, Germany's digital association and also acts as an advisor to the University of the German Federal Armed Forces' CODE Cyber Security Centre in Munich. Wintergerst was appointed Chairman of the Supervisory Board of secunet Security Networks AG in 2017.

## Tom Koehler

Partner Connecting Trust (Munich)

Tom Koehler is founder of connecting trust and a recognized cybersecurity visionary leader, strategist and trusted advisor at board level. He focuses exclusively on cybersecurity and integrated risk management, providing strategy, governance, cyber resilience and M&A advisory to a wide range of clients globally. Tom held a variety of senior executive roles with global advisory and technology leaders. These include: partner at EY European Advisory Center and GSA, CEO and CSO at EADS/Cassidian Cybersecurity, Head of Public Sector at RSA Germany, Director of Infosec Strategy & Communications at Microsoft Germany and Country Manager at VeriSign DACH.

## Katie Moussouris

Founder and CEO Luta Security (Seattle)

Katie Moussouris is the founder and CEO of Luta Security, a company offering unparalleled expertise to create robust vulnerability coordination programs. Ms. Moussouris recently testified as an expert on bug bounties & the labor market for security research for the US Senate, and has also been called upon for European Parliament hearings on dual-use technology. She was later invited by the US State Department to help renegotiate the Wassenaar Arrangement. Ms. Moussouris is a coauthor of an economic research paper on the labor market for bugs, published as a book chapter by MIT Press in 2017, and presented on the first system dynamics model of the vulnerability economy & exploit market in 2015, as part of her academic work as a visiting scholar at MIT Sloan School. She has over 20 years of pioneering leadership in information security, as a former penetration tester at @stake, to creating Microsoft Vulnerability Research, the first MS Bug bounties, and advising the US Department of Defense for years resulting in the launch of the Hack-the-Pentagon program. She is also an author and co-editor of standards ISO 29147 Vulnerability disclosure and ISO 30111 Vulnerability handling processes.

## Marina Kaljurand

Chair Global Commission on the Stability of Cyberspace
(Tallinn)

Marina Kaljurand served as Estonian Foreign Minister from 2015 July – 2016 October.
She began her career at the Ministry of Foreign Affairs in 1991 and held several leadership positions, including Undersecretary for Legal and Consular Affairs (Legal Adviser), Under-secretary for Trade and Development Cooperation, Undersecretary for Political Affairs. She served as Ambassador of Estonia to the State of Israel, the Russian Federation, Kazakhstan, Mexico, Canada and the United States of America. Kaljurand was a member of Estonian Governmental delegation in negotiations with Russia Federation on withdrawal of Russian troops from Estonia and Border Agreements between Estonia and Russia. Kaljurand headed the legal working group at the Estonian accession negotiations to the European Union and was the Chief Negotiator in Estonian accession negotiations to the OECD.  She has served twice as the Estonian National Expert at the United Nations Group of Governmental Experts on Developments in the Field of Information and  Telecommunications in the Context of International Security (GGE), in 2014-2015 and in 2016-2017. Marina Kaljurand is the Chair of the Global Commission on the Stability of Cyberspace (GCSC) and Member of the UN Secretary General's High Level Panel on Digital Cooperation.

## Maria Vello

CEO Cyber Defence Alliance (London)

Ms. Maria Vello, joined the Cyber Defence Alliance (CDA) in April 2016. Prior to this she was the CEO and President of the NCFTA (National Cyber-Forensics & Training Alliance) for three years. Prior to being appointed as CEO and President, Maria served on the Board of Directors of the NCFTA from its inception in 2002 to 2012 and as the Board Secretary for four years. During Maria's three-year leadership role, the non-profit weathered several significant cyber storms, playing an instrumental role in major and newsworthy shared successes across industry and law enforcement, like GameOverZeus and Darkode. During her leadership, the NCFTA was named in President Obama's Executive Order in October of 2014 and attended the signing of the Executive order.
With more than 25 years of experience in the security, design, integration, risk, architectural design, and implementation of global corporate systems, security architectures, and networks, Ms. Vello has been responsible for integrating security best practices, risk, compliance and raising awareness levels at every level in every organization for which she has worked.

## Raúl Riesco

Head of Intelligence and Industrial Control Systems
at INCIBE (León)

Raúl is currently Head of Intelligence and Industrial Control Systems, formerly Head of Research, Development and Innovation at the Spanish National Cybersecurity Institute (INCIBE). Since 1999 he has carried out positions of different responsibility levels in multi-national companies from the ICT sector like HP, BT and T-Systems, actively participating and leading different ICT international projects for several customers. Raul is also Advisor of the European Commission in the Protection and Security Advisory Group (PASAG) leading the Cybersecurity and privacy technologies area and until May 2017 he was also Member of the Board of Directors of ECSO (European Cybersecurity Organization) and member of the Partnership Board of the contractual Public Private Partnership (cPPP).
Raúl Riesco Granadino holds a Master Degree in Telecommunication Engineering from the Polytechnic University of Madrid and is a PhD candidate in the same university.

## Andreas Koenen

Head of Executive Department for Cyber Security,
Federal Ministry of the Interior (Berlin)

Andreas Könen is the Head of Directorate IT II – IT and cyber security; secure information technology and ÖS III – Cyber security in the field of law enforcement and domestic intelligence by the German Federal Ministry of the interior. Before he was the Vice President of the German "Federal Office for Information Security (BSI)". Mr Könen, a graduate mathematician, joined the BSI in 2006, taking on the post as the head of the executive staff of the BSI Director General. In 2009 he became the head of the division "Security in Applications and Critical Infrastructures" and subsequently head of the department "Security Consulting and Coordination". Prior to BSI, Mr Könen held various positions in the field of information technology within the German Federal Administration, including executive functions.

# INSTITUTIONAL PARTNERS:

## Global Commission on the Stability of Cyberspace

Launched at the Munich Security Conference in February 2017, the Global Commission on the Stability of Cyberspace is a group of 28 prominent, independent leaders in cyberspace from 16 countries, including Chair Marina Kaljurand (Estonia) and Co-Chairs Latha Reddy (India) and Michael Chertoff (USA). It engages the full range of stakeholders to develop proposals for norms and policies that enhance international security and stability, and guide responsible state and non-state behavior in cyberspace. It aims to bring the knowledge, expertise and perspectives of private actors and civil society, including the technical community and academia, into the traditionally state-led dialogue in international peace and security in cyberspace, to reflect the multi-stakeholder reality of this space.

## Aspen Institute Germany

The Aspen Institute Germany is an international, independent, and non-profit institution, which is committed to promoting value-based leadership with a strong focus on moral decision-making processes concerning foreign and security policy. The Aspen Institute pays particular attention to forming sustainable networks and on the establishment of an open and critical discourse among executives from Europe, the United States of America, as well as from the Western Balkans. Founded in Berlin in 1974, it is part of the global Aspen network, with partners in the U.S., France, Italy, the Czech Republic, Romania, Spain, Japan, India, Mexico, and the Ukraine. Together, the Institutes are committed to addressing the challenges of the 21st century.

## United Europe

United Europe is a non-profit, pro-European association set up in 2013 by prominent European business people, politicians and analysts. It was initiated by Wolfgang Schüssel, former Austrian chancellor who as president now heads the organization, and Jürgen Grossmann, a German entrepreneur, who serves as treasurer.
United Europe's goal is a strong and competitive Europe which regards the diversity of its cultures and peoples as a source of strength. We believe in the power of ideas and the value of debate. On this basis, United Europe organises CEO roundtables, lectures and Young Professionals Seminars and cooperates with other organisations and institutions.

## Deutschland sicher im Netz e.V.

Deutschland sicher im Netz e.V. (DsiN) is a nonprofit alliance of large companies and NGOs, providing comprehensive information, awareness campaigns and educational offers to consumers and businesses on issues of IT security. In June 2007 the Federal Ministry of the Interior became DsiN's patron (dsin.de).

# INFORMATION SECURITY FORUM (ISF)

Founded in 1989, the Information Security Forum (ISF) is an independent, not-for-profit organisation with a Membership comprising many of the world's leading organisations featured on the Fortune 500 and Forbes 2000 lists. It is dedicated to investigating, clarifying and resolving key issues in information security and risk management, by developing best practice methodologies, processes and solutions that meet the business needs of its Members.

## ISF Threat Horizon



**Digital connectivity exposes hidden dangers**

**Digital cold war engulfs business**

**Digital competitors rip up the rulebook**

2021

**THREAT HORIZON 2019 – 2021**

2020

Conflict looms

Technology outpaces controls

Pressure skews judgement

2019

Deterioration: when controls are eroded by regulations and technology

Distortion: as trust in the integrity of information is lost

Disruption: from an over reliance on fragile connectivity

### 2019

1.1 Premeditated internet outages bring trade to its knees
1.2 Ransomware hijacks the Internet of Things
1.3 Privileged insiders coerced into giving up the crown jewels

2.1 Automated misinformation gains instant credibility
2.2 Falsified information compromises performance
2.3 Subverted blockchains shatter trust

3.1 Surveillance laws expose corporate secrets
3.2 Privacy regulations impede the monitoring of insider threats
3.3 A headlong rush to deploy AI leads to unexpected outcomes

### 2020

1.1 Cyber and physical attacks combine to shatter business resilience
1.2 Satellites cause chaos on the ground
1.3 Weaponised appliances leave organisations powerless

2.1 Quantum arms race undermines the digital economy
2.2 Artificially intelligent malware amplifies attackers' capabilities
2.3 Attacks on connected vehicles put the brakes on operations

3.1 Biometrics offer a false sense of security
3.2 New regulations increase the risk and compliance burden
3.3 Trusted professionals divulge organisational weak points

### 2021

1.1 5G technologies broaden attack surfaces
1.2 Manipulated machine learning sows confusion
1.3 Parasitic malware feasts on critical infrastructure

2.1 State-backed espionage targets next gen tech
2.2 Sabotaged cloud services freeze operations
2.3 Drones become both predator and prey

3.1 Digital vigilantes weaponise vulnerability disclosure
3.2 Big tech break up fractures business models
3.3 Rushed digital transformations destroy trust

# ACKNOWLEDGMENTS

**MCSC**

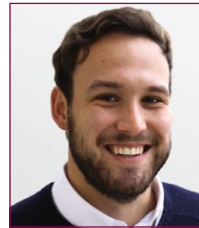## This conference was organised by:

**Peter Möhring**
Security Network Munich
Giesecke+Devrient

**Bianca Sum**
Security Network
Munich, Zentrum
Digitalisierung.Bayern

**Nicolai d'Alexandrowsky Harnisch**
Giesecke+Devrient

**Oliver Rolofs**
connecting trust

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**The Munich Cyber Security Conference** provides a forum for top-level industry decision makers to meet and discuss the necessary responses to today's cyber security challenge.

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# SECURITY NETWORK MUNICH
## Europe's leading expert network for information security

The Security Network Munich (Sicherheitsnetzwerk München) is an association of leading players, organisations and research institutes in the field of information and cyber security in the greater Munich area. Our goal is to foster industry cooperation through joint research and innovation projects. Our members meet regularly to discuss pressing industry challenges with government and research institutions. We also convey the industry´s insights and concerns to a political and broader societal audience, through education and communication, spreading awareness of the importance of information security.

Set up as a project funded by the Bavarian Ministry of Economic Affairs seven years ago, the network founded the non-profit association "Sicherheitsnetzwerk München e.V." in January 2019. The new association will promote cooperation and exchange among its members across different industries and academia, foster innovation projects and education initiatives directed especially to students and young adults. The Security Network Munich is committed to engage -together with its partners- in awareness and best practice campaigns with special emphasize on SMEs.

For more information on the network and membership, please visit https://it-security-munich.net.

**Security Network**
**Munich**