

Press Release

Wien, 20th May 2015

The Internet is a Critical Infrastructure for Society

Subtitle: AIT Austrian Institute of Technology hosted a workshop on the future Internet with international experts

Vienna, 20th May, 2015: The workshop on *Emerging Trends in Critical Infrastructure Protection* was organized in the context of the EU-funded Network of Excellence in Internet Science (EINS), JRA (Joint Research Action) 7 “Internet as Critical Infrastructure: Security, Resilience and Dependability aspects”. It took place in Semmering, located southeast of Vienna on the 11th and 12th May. Attending the workshop were representatives from well-known research institutes, and experts from network and solutions providers, device manufacturers, and from public administration. Together, they discussed the challenges of the future Internet as a critical infrastructure.

The critical infrastructure landscape is changing. Recent technological developments in the Information and Communications Technology (ICT) arena, such as the integration of innovative solutions for emerging applications in the automated industry sector and future interconnected transportation systems, have turned the Internet and Internet technologies into a fundamental critical infrastructure. This trend can also be seen in other critical areas, such as with health services that rely on rich sensor data, energy demand-balanced utility environments, or in the redesign of our cities that have omnipresent ICT systems. Therefore, the protection of these critical infrastructures and the Internet is necessary, as their compromise affects many societally important subsystems with significant economic implications if they are not available.

The multidisciplinary workshop explored current and emerging challenges for these ICT-based infrastructures. These points formed the initial point of discussion on the second day of the workshop, which resulted in the creation of a road-map for the next steps in critical infrastructure protection. The workshop contributions reflected the different viewpoints of the attendees, such as the telecommunications equipment industry (Huawei), network operators (Orange Labs), the airline industry (Airbus), and from a national security perspective (Austrian Federal Chancellery). These viewpoints were complemented with the latest scientific insights and research results, and formed the basis for further discussions. For example, Prof. James P.G. Sterbenz from the University of Kansas, USA, and Prof. David Hutchison from Lancaster University, UK, represented leading scientists in the area of resilient network infrastructures. Meanwhile, Dr. Heiko Niedermayer, Technical University Munich, and Dr. Mark Rouncefield, Lancaster University, who head JRA7 in the EINS

Network of Excellence, brought important expertise in socio-technical scientific insights to the workshop.

Leading-edge network security and resilience scientists can pave the way to success

“I am really delighted that some of the most reputable colleagues from the network and computer science world had responded to our call for this very important meeting in Austria. This underlines our successful positioning of Austria in the area of critical infrastructure protection within the international research environment”, Helmut Leopold, head of Digital Safety & Security Department at AIT, pointed out somewhat proudly.

The workshop developed a research road-map, which reflects the rapidly emerging trends and threat scenarios for critical infrastructure protection. To develop this roadmap, expertise in fundamental internet technologies, network security and privacy protection, and brand-new findings in social and societal aspects of Human Computer Interaction (HCI) were drawn upon. The key questions that were discussed at the workshop included: are the actors in the critical infrastructure industries playing a leading role in implementing appropriate communication systems; what role should regulation play to ensure the security and resilience of future communication networks that support critical infrastructures; how can we measure and assure security and resilience of these highly-interconnected critical infrastructures; and what role is Europe playing in technology development and market leadership in this crucial area?

The results and key findings from the workshop will be consolidated in a whitepaper.

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