



# Next generation OT-IT architecture with IPv6, 5G and LPWAN:

How to secure OT and IT in the next strategic period?

5<sup>th</sup> Forum, Forum, March 3, 2022, both dates from 13:15-17:30 The forum will be online with Webex

For this Forum the sponsors provide the participation fee: Free participation!



## **Mission**

## Why should you attend?

The Swiss OT-IT Cyber Security Forum Series is a sequence of events which take place three times per year, with the strategic goal to unify OT and IT decision makers. The main objective is achieving significant advances in security.

### **Background:**

Historically, the two communitities had completely different set-ups:

- IT used to follow the speed of technology evolvement, with product cycles of about three years and extremely fast fixing of faults and errors: short reaction time of less than one hour is common practice by today.
- OT used to create solutions in the mechanical space with life cycles reaching from 25 to 70 years, with little maintenance on average every 3-5 years.
  - In the past few years the use of IT in OT installation has been increasing dramatically and OT is now fully integrated in cyberspace. Therefore, the need to connect the two communitities is now more important than ever before in order to address the mutually dependent topics including security issues.

#### Design of the forum:

- 3 meetings per year
- 2-3 talks from industry leaders delivered in English
- Several roundtables lasting 1 hour in D, F and E at every meeting

### Participation fee:

- Forum 5 is funded by sponsors no participation fee In general: CHF 360 per event, alternatively CHF 960 for three events (one year)
- Participation by invitation only. Proposal for inviting additional key persons mail to: bmhaemmerli@OT-IT-CyberSecurityForum.ch

#### **Content:**

The content will be coordinated by Prof. Dr. Bernhard M. Haemmerli, Hochschule Luzern, and will be created by the organizing committee.

#### **Organizing Committee:**

Drives the process for the meetings with delegates, sponsors and selected partners.

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# Next generation OT-IT architecture with IPv6, 5G and LPWAN:

# How to secure OT and IT the next strategic period?

Cyber space is continuously developing, and we face three protocols: LPWAN (Low Power Wide Area Network) such as LoRa (Long Range Wide Area Protocol, for low data rates in widely distributed environments), 5G (next generation cell phone protocol, which is much faster, can nearly handle unlimited numbers of nodes and has extremely low delays) and IPv6 the new internet protocol. What do we need to prepare, to ensure companies get best value and usage of these technologies while keeping security at a high level? Indirectly we will also prepare the organization for a secure future, with an alignment accordingly.

In this frame we will discuss beneficial and new applications and elaborate on new security concepts, which will make OT-IT security ready for the future. The following questions are relevant:

- With which applications companies can take advantage of new networking technologies?
- How to align the architecture for being ready for this and future technologies?
- Which changes you need in organization, technology, processes, and people skills?

Keynotes:

5G and low power, low bandwidth wide area networks (LoRa, Sigfox):

**Architecture, security, and innovative applications**Gerrit Holtrup, Principal Security Engineer at Kudelski IoT

Preparing OT and IT security for the next strategic period: Aligning organization, technology, processes, people.

Simon Schneiter, Cyber Security Expert, ensec

Roundtables

Roundtable 1

Architecture, security, and innovative applications: How to take advantage securely?

Roundtable 2

Aligning organization, technology, processes, people: Priorities, implementation, and changes

## 5<sup>th</sup> Swiss OT-IT Cyber Security Forum

SWISS OT-IT CYBER SECURITY FORUM

March 3, 13.15-17:30

## **Agenda**

### Webex participation link

| 12:45 | Opening of Webex for testing.   |  |
|-------|---|--|
| 13:00 | Onboarding Webex participants.  |  |
| 13:15 | Welcome note by Kudelski and Prof. Hämmerli   |  |
| 13:30 | <b>5G</b> and low power, low bandwidth wide area networks (LoRa, Sigfox): Architecture security, and innovative applications Gerrit Holtrup Principal Security Engineer at Kudelski IoT |  |
| 14:00 | Roundtable 1:  Architecture, security, and innovative applications: How to take advantage securely?   |  |
| 15:00 | Sharing results between tables  |  |
| 15:15 | Break   |  |
| 15:30 | Preparing OT and IT security for the next strategic period: Aligning organization, technology, processes, people.  Simon Schneiter, Cyber Security Expert, ensec                        |  |
| 16:00 | Roundtable 2 Aligning organization, technology, processes, people: Priorities, implementation, and changes  |  |
| 16:50 | Sharing results between tables  |  |
| 17:10 | Wrap up   |  |
| 17:30 | Networking, as long you want  |  |
|       |   |  |



## **Swiss OT-IT Cyber Security Forum 6**

Outsourcing detection and response: Identifying key issues for constructing successful partnerships?

Core topic: For most enterprises the necessary knowledge for detection and response is far beyond of the own capacity as well as 24h by 7day service beyond any economic reality. Therefore, it is about to find the right partner, and to tune the organization to each other for best benefit. In addition, the options to identify and improve difficulties in the relationship with your outsourcing partner will be discussed.

Date: June 16, 2022, 12:00-20:30h

Place: TBA (To Be Anounced)

Speakers: TBA

Roundtable 1: Outsourcing detection and response: What must be done in preparation

and evaluation phase, and how to reach the critical maturity for wellfunctioning?

Roundtable 2: Finetuning operation: What are key issues, and how to continuously assess

common operation?

## Swiss OT-IT Cyber Security Forum 7

Securing networks with old and non-patchable devices or other insecure black boxes: Strategies, concepts, and implementation in context of critical infrastructure like e. g. hospitals and energy providers.

Core topic: Insecure devices need micro segmentation as narrow as the functionality allows. In addition, the analysis and monitoring of networks streams should be another line of defense: automated search for unusual behavior and anomalies with advanced machine learning and artificial intelligence method may disclose otherwise hidden activities.

Date: September 22, 2022, 12:00-20:30h

Place: Berne area

Speakers: TBA

Roundtable 1: Challenges with legacy devices: Discussing the scenarios and sharing experience

Roundtable 2: Discussing latest and future solution: What must happen, that the security

can be fostered, which technologies help, and what corporate and community

activities must be induced?



# Registration

| Register by replying to the invitation email with a and sending through a scan or alternatively throuform to: info@OT-IT-CyberSecurityForum.ch | igh a smartphone picture. Send this completed |  |  |
|--|---|--|--|
| For this Forum your participation fee is provided by the sponsors because we cannot meet in person.  |   |  |  |
| We hope that we can meet June 16 again in Person, and will do our very best to enable that.  |   |  |  |
| Again webex link for participation   |   |  |  |
|  |   |  |  |
| First Name   | Last Name                                     |  |  |
| Organisation   |   |  |  |
| Job Title  |   |  |  |
| Street / No.   | ZIP / City                                    |  |  |
| Phone  | Cellphone                                     |  |  |
| Email  |   |  |  |
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