Virtualization in OT – Baseline, best practices, and hardening:

But how to provide reliability and security?

OT virtualization is a shift in the market, and there is no chance to stop this development. Therefore, we want to elaborate on this issue, and especially on the most critical points: reliability, security and supply chain.

14th Forum, March 6, 2025 12:00-20:30 h

Roche Diagnostic, Forrenstrasse 2, 6343 Rotkreuz, Melden bei Bau 5, Reception

Mission
Why should you attend?

The Swiss OT-IT Cyber Security Forum Series is a sequence of events which takes 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 communities 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 cyber-space. Therefore, the need to connect the two communities 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:

- 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.

Virtualization in OT – Baseline, best practices, and hardening:
But how to provide reliability, availability and security?

IT concepts such as virtualization are very beneficial for IT- and OT-operators because of savings in hardware, and in system management (updates etc.). The suppliers know this, and offer their new products in the cloud, and often in virtualized environments. Traditional components, as they were available in the past, are no more available. Therefore, OT practitioners and engineers need to change to the new virtualized world. And this requires new and different risk analysis and security concepts.

In the first step we need to understand the virtualization concept, and its primary vulnerabilities and attack surface, in the cloud, but also at the operator's premises. More specifically: Rols and responsibilities must be defined in-depth and well, in the cloud, on premises for internal IT-provider, and OT- organization (e.g. applications).
For this we will exchange best practices approaches and the related frameworks.

Secondly, we need to consider how to harden virtualized system and make them more resilient against attacks. What are the immediate benefits, and which residual risks remain?

Thirdly, we need an analysis what the new concepts provide in respect to reliability, availability and security. The new world is a distributed computing systems and the analysis must consider all aspects, in the cloud but also at operator's premises. And in respect to the new area of political conflicts, we need to be very deliberate in choosing the region we align, when we run virtualized services. Are there also vulnerabilities we need to be prepared for ourselves, just in case political tension is growing?

We expect new security insights in respect to our system of today but also of the near future.

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CYBER SECURITY
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Virtualization in OT – Baseline, best practices, and hardening:
But how to provide reliability, availability and security?

Keynotes:

Assessing Risk for OT Virtualization: How to provide reliability and security in the new virtualized world?
James Phillips, Kudelski Security

Concepts and implementation of OT Virtualization: How to bring IT-Virtualization Concepts to Acceptance in the OT Group?
Daniel Franke, Norsk Hydro

Roundtables:

Roundtable 1:
Refining OT virtualization:
How to design for reliability, availability and security?

Roundtable 2:
OT Virtualization: Supply chain, implementation and operation:
What are best practices today and in the near future

Date:	**March 6, 2025**
Time:	**12:00-20:30 h**
Location:	**Roche Diagnostics International, Forrenstrasse 2, 6343 Rotkreuz**
	Melden bei Bau 5, Reception

SWISS **OT-IT**
CYBER SECURITY
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Agenda

In-Person Meeting: Roche Diagnostics International, Forrenstrasse 2, 6343 Rotkreuz

Online Table will be offered, and online streaming of presentations (good online quality)

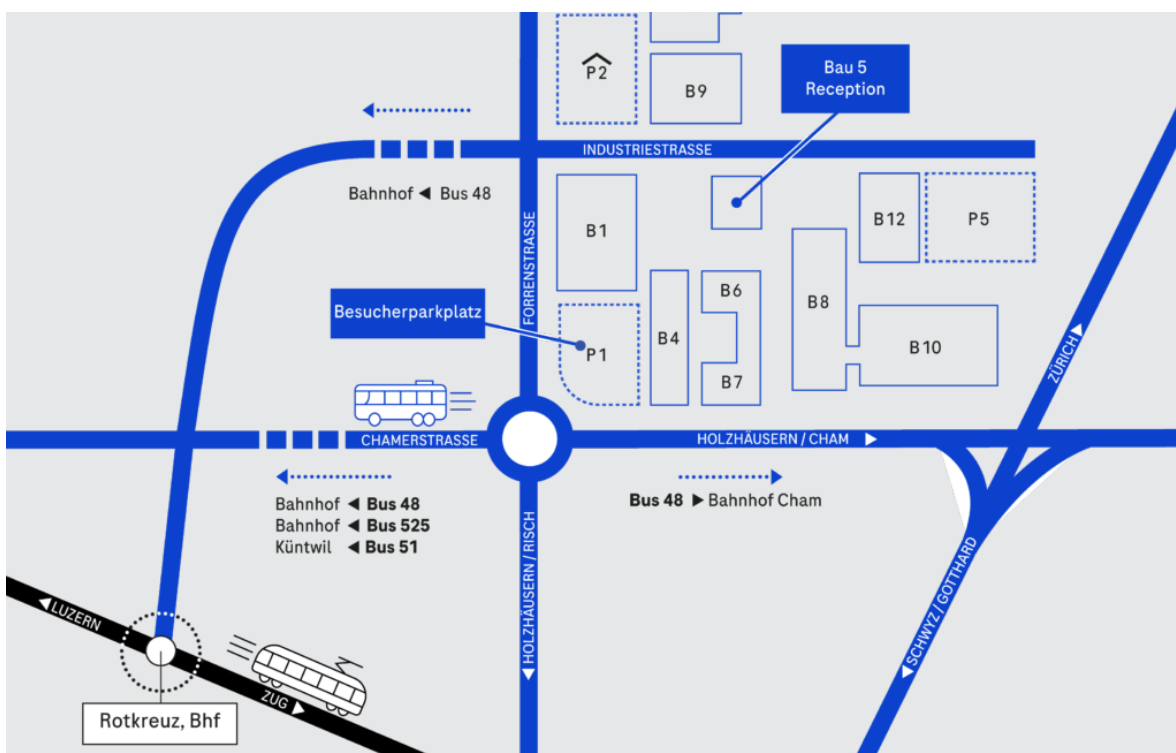|	
12:00	Lunch at Roche Diagnostics international
12:45	Networking among participants
13:10	Welcome note by Thomas Zaugg, Roche Diagnostics International, and Prof. Bernhard Hämmerli
13:30	**Assessing Risk for OT Virtualization: How to provide reliability and security in the new virtualized world?** James Phillips, Kudelski Security
14:10	Roundtable 1: **Refining OT virtualization: How to design for reliability, availability and security?**
15:00	Exchange between groups
15:15	Break
15:45	**Concepts and implementation of OT Virtualization: How to bring IT-Virtualization Concepts to Acceptance in the OT Group?** Daniel Franke, Norsk Hydro
16:15	Roundtable 2: **OT Virtualization: Supply chain, implementation and operation: What are best practices today and in the near future?**
17:00	Exchange between groups
17:15	Wrap-up and information on next meeting
17:30	Social Activity at Roche Diagnostics: Tours through 3 activities Imagine Lab: The future of the Health Diagnostics, Showroom Roche Diagnostics Products, Production of Automated Medical Diagnostics.
18:45	Invited Dinner **Restaurant Peron Nord**, (im APART Hotel), Mattenstrasse 1, 6343 Rotkreuz
20:30	End of the meeting

Swiss OT-IT Cyber Security Forum 15

During Incident: Stabilize or Isolate infected systems: How to determine Strategy and which actions lead to success?

There is an indication of compromise: What are the next steps? How to evaluate the severeness of the incident, and how to define criteria to categorize? Is authority reporting required? And: which strategy should be selected, stabilization or isolation? What are the criteria to potentially change strategy during the incident from isolation to stabilization or vice versa? A comprehensive overview on Incidents and incident processing will be debated.

Date:	Thursday, June 12, 2025, 12:00-20:30h
Place:	Aula von Swissgrid, Bleichemattstrasse 31, 5001 Aarau
Speakers:	TBD

Roundtable 1: Understanding security testing and audit: What are the options, and what are the criteria to select a specific approach?

Roundtable 2: Reporting, risk communication and other influence on decision makers: What are the best options to invoke the desired actions?

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Tentative – to be verified by votes: Auditing OT-systems: Which are the options for audit and its processes, and how to report for creating the best response?

Audit and security testing offers many different options: but which option is the best for a specific situation? Therefore, it is important to get an overview form bug bounty, red teaming, penetration test to more compliance-oriented framework audits. The result must be communicated, but how? Is reporting the best options, or is risk communication better? We expect a vivid discussion and experience exchange on these issues.

Date:	Thursday, tentative September 11, 2025, 12:00-20:30h
Place:	Bern Area
Speakers:	TBD

Roundtable 1: Understanding security testing and audit: What are the options, and what are the criteria to select a specific approach?

Roundtable 2: Reporting, risk communication and other influence on decision makers: What are the best options to invoke the desired actions?

Registration

Register by replying to the invitation email with all your details – or by filling out this form, scanning it in or taking a smartphone picture.
Send the completed form to: info@OT-IT-CyberSecurityForum.ch

- [ ] Three consecutive forums for CHF 960.–
  Forum 14 (06.03.2025), Forum 15 (12. 06, 2025), and Forum 16 (tentative 12.09.2025),

- [ ] 14th OT-IT Cyber Security Forum, March 6, 2025 only, at the price of CHF 360.–

- [ ] Register for social activity 17:30-18:45

- [ ] Register for the sponsored Dinner 19:00-20:30 at **Restaurant Peron Nord**, (im APART Hotel), Mattenstrasse 1, CH-6343 Rotkreuz

- [ ] Online Attendance: I will attend online in Teams (the link will be sent to you on request)

First Name .... Last Name ....

Organisation ....

Job Title ....

Street / No. .... ZIP / City ....

Phone .... Cellphone ....

Email ....

Please add instructions for invoice, needing an offer etc.:

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