

# 10th SIG-NOC meeting

13 & 14 November, Prague, Czech Republic



## Theme - "Keeping the competitive edge in the NREN community"

Learn how your colleagues are working with the latest tools, processes and people as the results from the SIG-NOC survey will be presented and discussed. In addition to this we will focus on the Campus Network as a Service, Monitoring tools and automation.

## Venue/Location

Masaryk Dormitory, CTU (Czech Technical University)

Thákurova 1, Prague 6

## How to get there:

There is a good connection from/to the airport in less than 30 minutes.

When using public transportation, **bus 119** to **Nádraží Veveřská** plus **metro A** to **Dejvická station**, or **bus 119** to **Nádraží Veveřská** plus any **tram** to **Thákurova station** is available.

## Where to stay

### Remote Participation:

- connection details will be sent to the [registered](#) remote participants directly on Tuesday the 12th of November.

## Blog

Agenda (all times are in CEST)

### Wednesday 13th November

Time	Session
12:00-13:00	<b>Arrival - Lunch</b>
13:00-13:15	<b>Welcome by CESNET</b> - Jan Gruntorád, CESNET
13:15-14:00	<b>SIG-NOC 2019 Survey Results</b> - Maria Isabel Gandia, CSUC  Presentation of the results from the 3 <sup>rd</sup> SIG-NOC survey and short discussions about the most popular tools from these results.
14:00-14:30	<b>Orchestration on the network automation stack in GRNET</b> - Lefteris Poulakakis, GRNET  GRNET network automation stack consists of some internal -in house developed- tools for service/customer DB and network inventory. This presentation will show how orchestration has been added to the current stack.
14:30-15:00	<b>P4</b> - Viktor Puš, Netcope  P4 is a high-level language for programming protocol-independent packet processing. Netcope will explain its experiences on that.
15:00-15:30	<b>Coffee break</b>
15:30-15:50	<b>DDoS Mitigation: DDoS Protector</b> - Tomáš Podermanski, CESNET  Presentation of the DDoS Protector, that inspects the traffic, drops packets according to a given mitigation strategy and forwards the legitimate traffic to the target organization.
15:50-16:15	<b>DDoS Mitigation: ExaFS</b> - Ondej Caletka, CESNET  Presentation about the mitigation of traffic via BGP
16:15-16:45	<b>GLAD Training</b> - Irina Matthews, GÉANT  Introducing GÉANT's portfolio of learning services for the European NREN community.
16:45-17:15	<b>Staying competitive: how to attract the best</b> - discussion led by Jonny Lundin, SUNET  Finding the best talented engineers is a challenge for the NOCs. In this discussion, we will try to find the best ways to deal with human resources while staying competitive.
18:30	City walking tour - we will start at Malostranská station (metro or tram accessible), we will see Malostranské square, Charles bridge and walk by the river to the restaurant Parnas.
19:30	<b>Dinner - Restaurant Parnas</b> (today broken web but maybe they fix it), <a href="#">map</a>  <b>address:</b> Smetanovo nábřeží 1012/2, 110 00 Praha

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## Thursday 14th November

Time	Session
9:00-9:30	<p><b>CNaaS in SUNET</b> - David Heed, SUNET</p> <p>This presentation explains the experiences from SUNET, one of the first NREN to offer Campus Network Management as a Service (CNaaS) services to their connected institutions.</p>
9:30-10:00	<p><b>Automation @ SURFnet</b> - Sadi Koçak, SURFnet</p> <p>Presentation of the SURFnet Automation stack. This has been developed in house so we could migrate our Customers from SURFnet7 network to SURFnet8 network via automation process using orchestration.</p>
10:00-10:30	<p><b>OAV in GÉANT</b> - Tim Chown, Jisc &amp; Maria Isabel Gandia, CSUC</p> <p>Update on the work done by the Network Services Evolution and Development task (Task 2) of the GN4-3 project's Network Technologies and Services Development work package (WP6) about Orchestration, Automation and Virtualisation.</p>
10:30-11:00	<b>Coffee break</b>
11:00-11:30	<p><b>Monitoring of Network Quality and Netflow Monitoring with FTAS and G3</b> -</p> <p>Tomáš Košar, CESNET</p> <p>CESNET has developed several tools to monitor the network quality. FTAS is a netflow based tool for the monitoring and statistics of traffic, whereas G3 enables users to monitor the level of resource utilisation, the availability of unused capacity and other characteristics of the network.</p>
11:30-12:00	<p><b>Workshop on Network Management and Monitoring Summary</b> - Maria Isabel Gandia, CSUC</p> <p>The presentation will be a summary of the Workshop on Network Management and Monitoring for CNaaS: organising management for end-institutions, tools for end-institution management, monitoring end-institution networks and automating management functions.</p>
12:00-12:15	<p><b>Flash talk: "GN4-3N - Transforming the European R&amp;E Core to 40Tbps Capability"</b> - Tony Barber, GÉANT</p>
12:15-12:30	Wrap-up
12:30	<b>Goodbye and Lunch</b>