Performance Management Workshop

Zagreb

4-5 March 2020

The Network Technologies and Services Evolution work package of the GÉANT GN4-3 project is organising a workshop on Performance Management to be held in Zagreb on 4th-5th March 2020, directly after the 19th STF meeting on 3rd and 4th March at the same venue. The meeting will run from lunchtime on 4th March to lunchtime on 5th March.

The workshop will include presentations on and discussions of:

- Existing tools used to measure and monitor network and application performance
- Network performance management use cases and challenges
- Architectures for improved performance for demanding network applications, including large scale data transfers and real-time applications
- Emerging trends and new approaches to performance management

Specific topics may include:

- Tools used by European NREN NOCs
- Large scale data transfer tools and architectures, including use of Data Transfer Nodes (DTNs)
- Network measurement and monitoring tools, such as perfSONAR
- Network and application monitoring of collaborative performing arts applications such as LoLa, including analysis of latency and jitter
- Streaming network telemetry, In-Band Network Telemetry
- Programmable / software-defined networking, including P4-based approaches
- Network remediation using automation approaches.

If you are interested in presenting, please email gn4-3-wp6-wpls@lists.geant.org.

Meeting Venue

CARNET Headquarters
Josipa Marohnia 5
Zagreb
Croatia

CARNET HQ is located some 1.1 km from the **Hotel International** on foot.
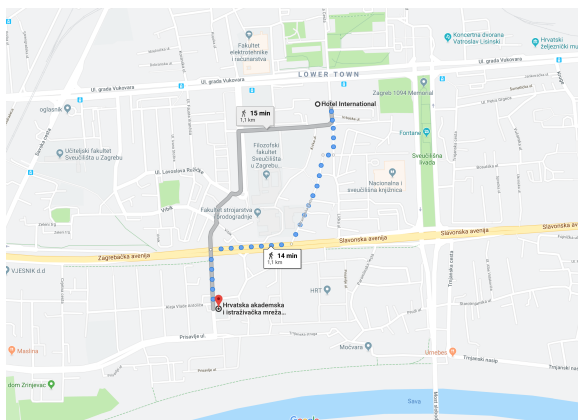
Registration

Registration is open at https://eventr.geant.org/events/3253.

Agenda (all times CET)

Wednesday 4th March 2020

The draft agenda includes confirmed talks to date. The final detailed agenda will be posted soon.

09:00-12:30	STF Meeting (day 2)
12:30-13:30	*Arrival, Buffet Lunch*
13:30-15:20	**Session 1: Performance management** Session Chair: Ivana Golub (PSNC) • Introduction - Ivana Golub (PSNC) • NREN community performance scenarios and tools - Tim Chown (Jisc) • SIG-NOC survey - performance tools being used by the NREN NOC community - Maria Isabel Gandia Carriedo (CSUC) • Strengthening international R&D communities with perfSONAR monitoring - Szymon Trocha (PSNC) • Performance measurement with RIPE Atlas and RIS data - an investigative approach - Jasper den Hertog (RIPE NCC)
15:20-15:45	*Tea and coffee break*
15:45-17:15	**Session 2: Use cases, challenges, and tools** Session Chair: Maria Isabel Gandia Carriedo (CSUC/RedIRIS) • Monitoring real-time applications; latency and jitter (LoLa) - Claudio Allocchio (GARR) (remote presentation). • Measurement Lab - Open Internet Measurement - Chris Ritzo (Measurement Lab) (remote presentation) • GÉANT GN4-3 project DTN wiki - Damir Regvart (CARNET)
17:15	**End of Day 1**

eduroam is available at the meeting venue.

Remote participation

Remote participation is possible via Adobe Connect Meeting.

It is recommended that you use an app:

For Windows: http://www.adobe.com/go/Connectsetup
For Mac: http://www.adobe.com/go/ConnectSetupMac
To join the meeting please use https://connect.carnet.hr/pmw

If you have never attended an Adobe Connect meeting before: Test your connection: https://connect.carnet.hr/common/help/en/support/meeting_test.htm. A quick overview is available at: http://www.adobe.com/products/adobeconnect.html.

Accommodation

We recommend all participants to stay at the **Hotel International** (http://www.internationalhotelzagreb.com/). Hotel International is located in downtown Zagreb, among the numerous offices of domestic and foreign companies, while all major Zagreb sights and attractions are nearby. CARNET HQ are 15 minutes on foot away from the hotel.

Hotel International
Miramarska 24
10000 Zagreb Croatia
T: + 385 52 808 897

Getting to the Hotel International
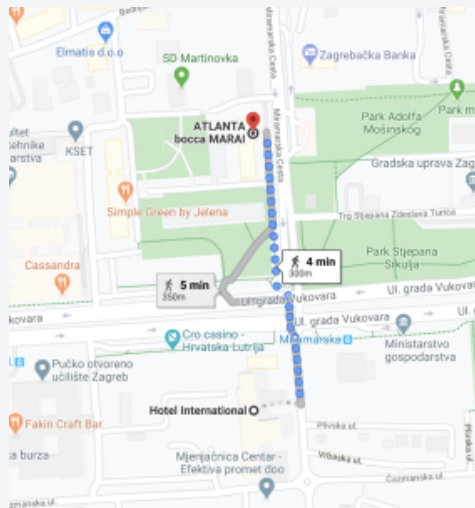
ZAGREB AIRPORT "Franjo Tuman"

From the "Franjo Tuman" airport to the hotel you can arrive by taxi (regular daily rates range from 200-250 HRK) or by regular bus line from Croatia Airlines to the main bus station in Zagreb for 35 kn. From main bus station take tram number 5. Uber and Bolt are also available.

19:30-22:00	Self-paid dinner
	Restaurant: ATLANTA bocca MARAI Miramarska 22, Zagreb
	https://www.bocca-marai.hr/
	Directions from Hotel International:
	https://www.google.com/maps/dir/Hotel+International,+Miramarska+Cesta,+Zagreb/ATLANTA+bocca+MARAI,+Miramarska+Cesta+22,+10000,+Zagreb/@45.8003866,15.9719693,17z/data=!3m1!4b1!4m14!4m13!1m5!1m1!1s0x4765d6f5ccd82531:0x9f01ada2a1532ad4!2m2!1d15.974062!2d45.79911!1m5!1m1!1s0x4765d6f6ecee36db:0xd23adc59b23838c1!2m2!1d15.9740513!2d45.8016471!3e2

Thursday 5th March 2020

9:00-9:15	**Resume, t*ea and coffee available*
09:15-10:35	**Session 3: Data transfer and performance management architectures**
	Session Chair: Pavle Vuleti (UoB/AMRES)
	• Roadmap for perfSONAR Measurement Point design in GEANT 2020-2025 - Tony Barber (GÉANT)
	• Data Mover Challenge 2020; lessons and observations - Andrew Howard (Australian National University, remote)
	• How to set up DTN nodes on GTS - Damir Regvart (CARNET) and Jerry Sobieski (NORDUnet, remote)
	• GÉANT 100G DTN testbed and experiments - Vincenzo Capone (GÉANT, remote)
10:35-11:00	*Tea and coffee break*

PUBLIC TRANSPORT AND TAXI

When in town, you can reach Hotel International with tram lines 3, 5 and 13. It is necessary to leave the tram at Miramarska station. Hotel International is located 50 m from station to the south and is immediately visible. Taxi station is in front of the hotel so we can provide you with transportation in a few minutes.

IF ARRIVING BY CAR

If coming from the west (highway A2, crossing Bregana, Slovenia), follow signs for "Zagreb west (Zagreb zapad)" and continue to drive along Zagreb Avenue. Turn left at Savska road (Savska cesta). At the first intersection, turn right to Vukovar Avenua. Drive 700 meters to the intersection with Miramarska Street. Hotel is on your right side.

If coming from the east entrance to the city drive along Slavonian Avenue (Slavonska avenija, 11 km) before turning to Trnje. Turn right. Continue to drive and turn left in Vukovar Avenue. After 400 meters turn left. The hotel is located on your right side.

If you are returning from Croatian coast or traveling on highway A1 to Zagreb, after the toll booth, continue along Adriatic Avenue (Jadranska avenija) to the roundabout. At the roundabout take the second exit and continue driving along Dubrovnik Avenue (Avenija Dubrovnik) to the intersection with Avenue Veeslav Holjevac (Avenija Veeslava Holjevca). At the intersection turn to the north, and drive across the bridge to the intersection with the Vukovar Avenue. At the crossroads turn left and after 400 meters turn left again in Miramarska street. Hotel is on your right side.

11:00-12:30	**Session 4: New measurement approaches** Session Chair: Tim Chown (Jisc) - In-band Network Telemetry and Streaming Telemetry - Marinos Dimolianis (NTUA) - RARE telemetry requirements Frederic Loui (RENATER) - Data plane programmability (P4) and telemetry - Mauro Campanella (GARR) - WP6T3 incubator studies - Pavle Vuleti (University of Belgrade) - Discussion
12:30	**Lunch**
13:30	**Close**

Table 1: