# Network Measurements

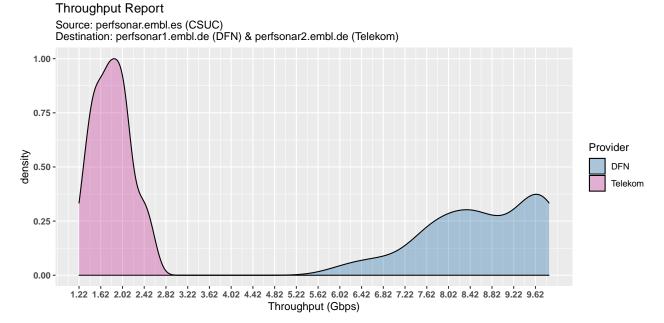
Beatriz Serrano Solano

Carlos Fernandez San Millan

# Throughput comparison

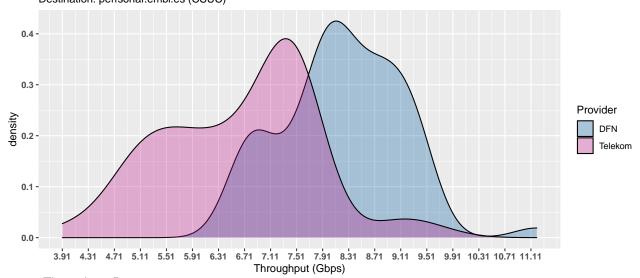
## Ingress & Egress EMBL Outstations

The following graphs represent the throughput achieved from and to EMBL (Heidelberg) and various EMBL outations.



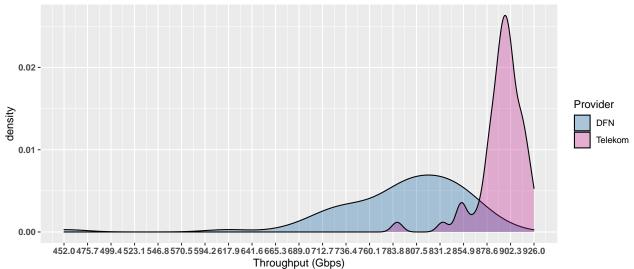
## Throughput Report

Source: perfsonar1.embl.de (DFN) & perfsonar2.embl.de (Telekom) Destination: perfsonar.embl.es (CSUC)



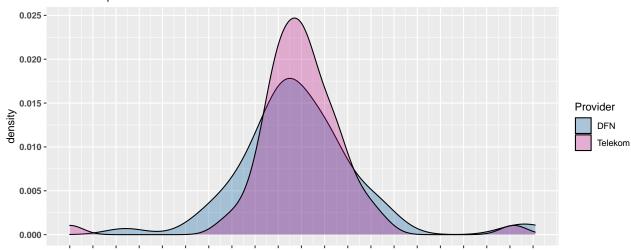
#### Throughput Report

Source: perfsonar.embl.it (GARR)
Destination: perfsonar1.embl.de (DFN) & perfsonar2.embl.de (Telekom)



## Throughput Report

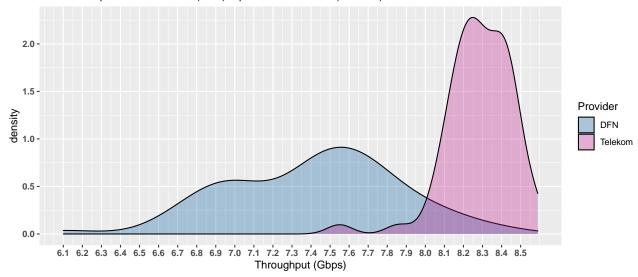
Source: perfsonar1.embl.de (DFN) & perfsonar2.embl.de (Telekom) Destination: perfsonar.embl.it



823.0833.8844.6855.4866.2877.0887.8898.6909.4920.2931.0941.8952.6963.4974.2985.0995.81006.0017.4028.2039.0012911.001291.001291.001291.001291.001291.001291.001291.001291.001291Throughput (Gbps)

#### Throughput Report

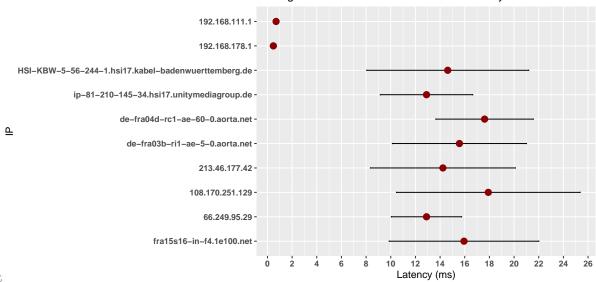
Source: emblhd-ebihost.ebi.ac.uk (JANET)
Destination: perfsonar1.embl.de (DFN) & perfsonar2.embl.de (Telekom)



# Traceroute and latency

• Import the data

# Average and Standard Deviation of the latency



• Plot