



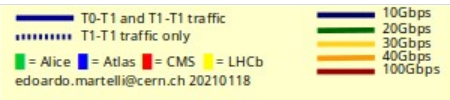
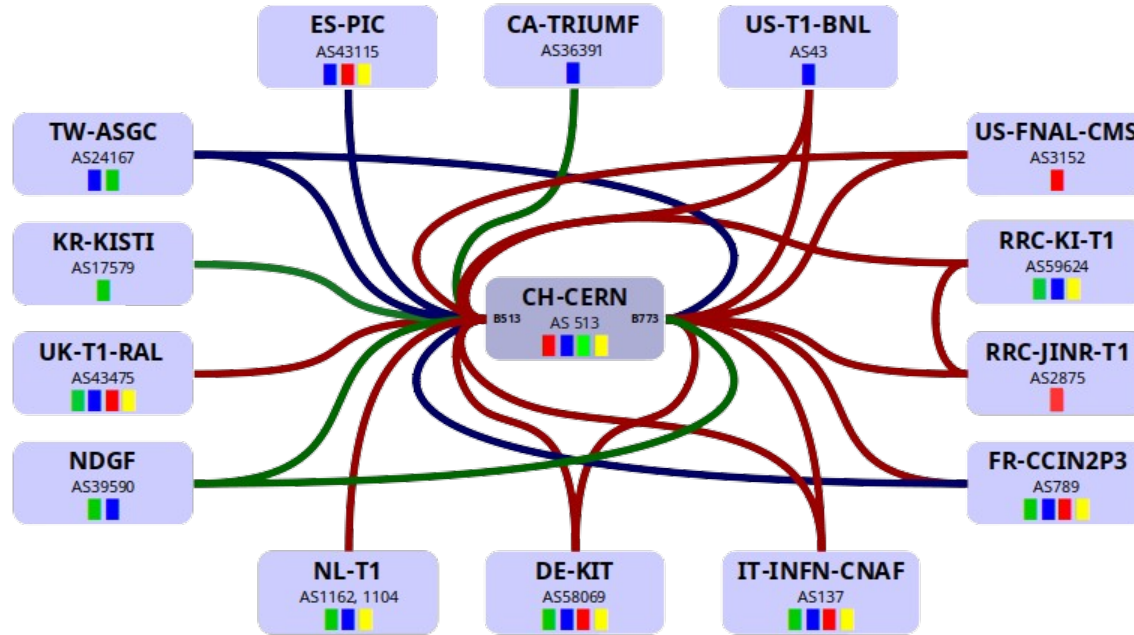
# LHCOPN update

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LHCOPN/ONE meeting #46

23<sup>rd</sup> March 2021

# LHCOPN



<https://twiki.cern.ch/twiki/bin/view/LHCOPN/OverallNetworkMaps>

## Numbers

- 14 Tier1s + 1 Tier0
- 12 countries in 3 continents
- Dual stack IPv4-IPv6
- 1.3 Tbps to the Tier0

# Latest news

## **CH-CERN:**

- Replacement of legacy Brocade datacentre routers completed
- LHCONE link to GEANT upgraded to 2x100G

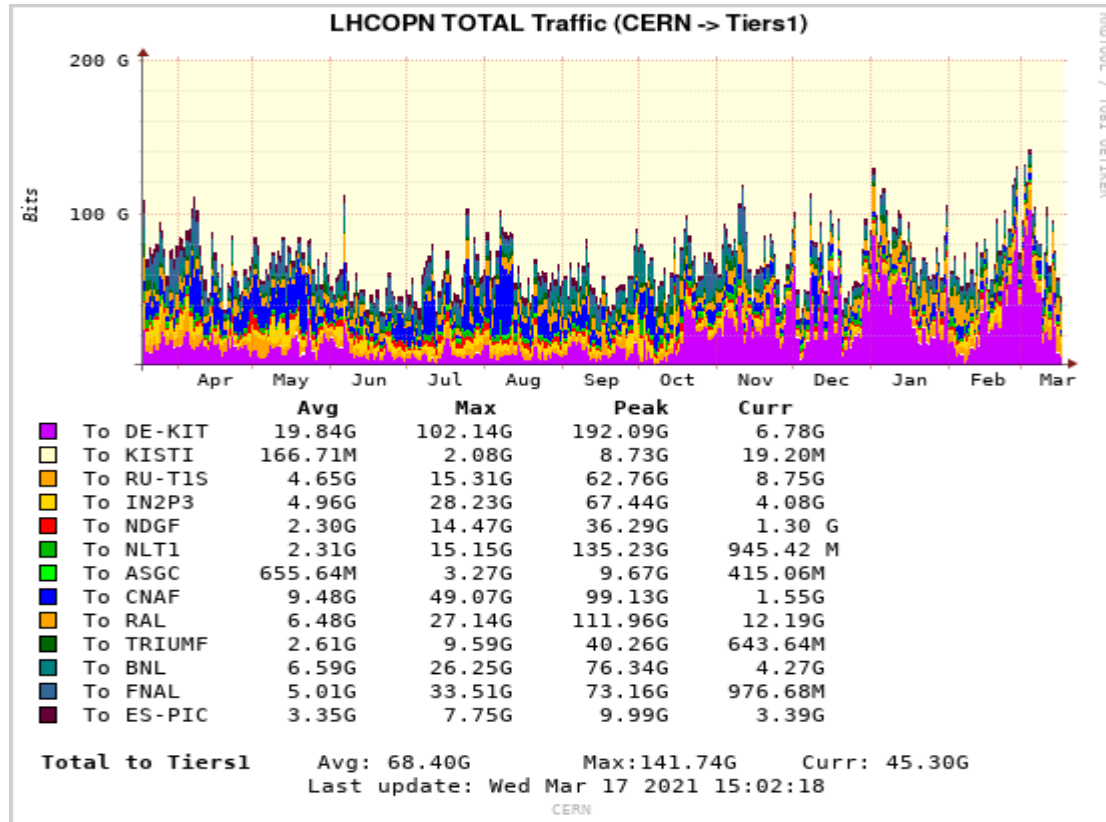
## **UK-T1-RAL:**

- New 100G in production. Former 3x10G decommissioned

## **DE-KIT:**

- Second 100G in production. Configured in load-balancing with previous 100G

# LHCOPN Traffic – last 12 months



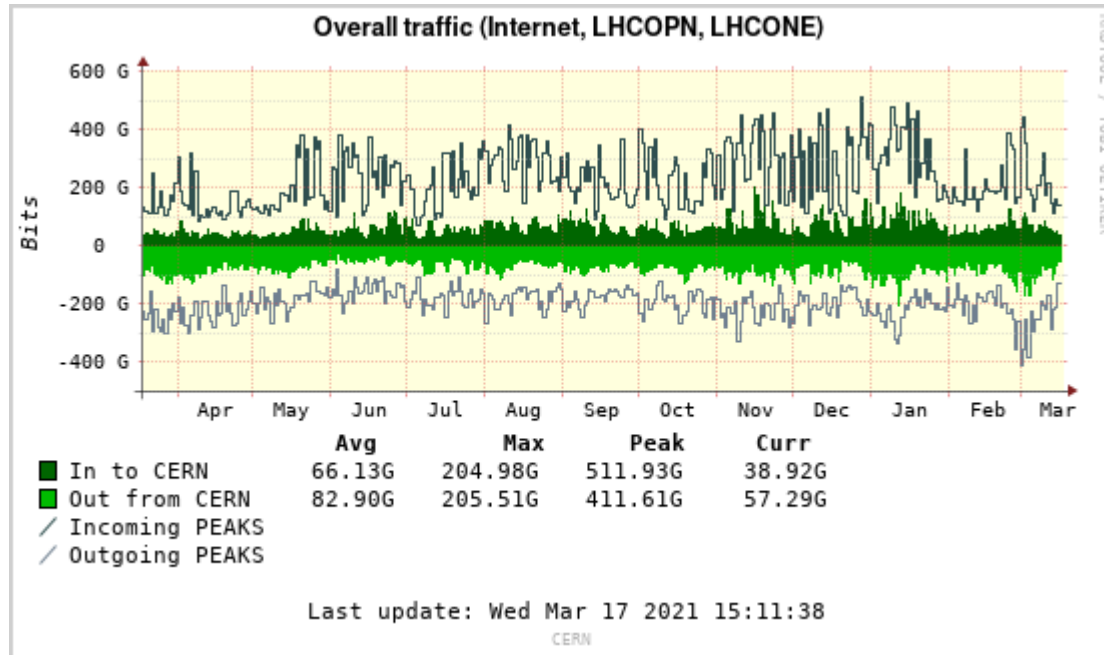
## Numbers:

Moved ~269 PB in the last 12 months

-6% compared to previous year (286PB)

Ref: <https://netstat.cern.ch/monitoring/network-statistics/ext/?q=LHCOPN&p=LHCOPN&mn=00-Total-Traffic&t=Yearly>

# CERN total traffic



## Numbers:

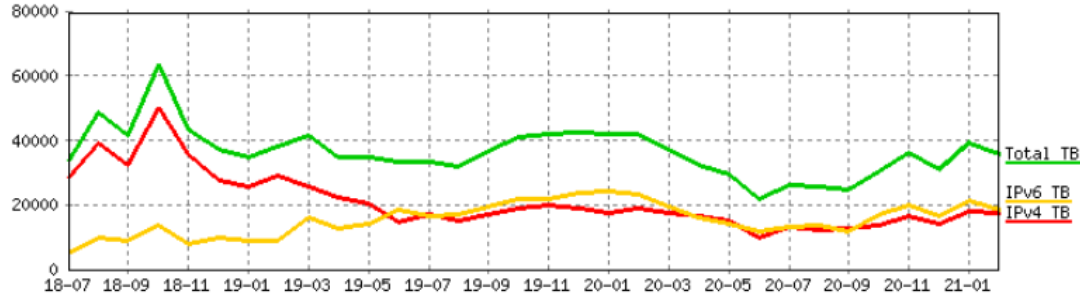
Sent out ~328 PB  
in the last 12  
months

+19% compared  
to previous year  
(275PB)

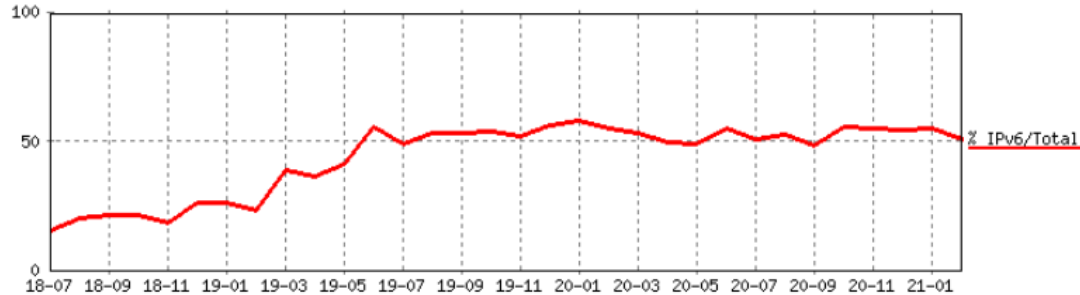
Ref: <https://netstat.cern.ch/monitoring/network-statistics/ext/?q=CERN&p=EXT&mn=01-Total-Internet-traffic&t=Yearly>

# LHCOPN+LHCONE: IPv4 vs IPv6

IPv4 and IPv6 traffic volumes month by month



Percentage of IPv6 traffic over the total



v4/v6 as seen on  
the CERN  
LHCOPNE border  
routers

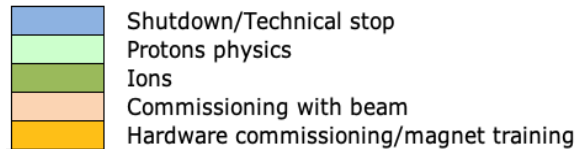
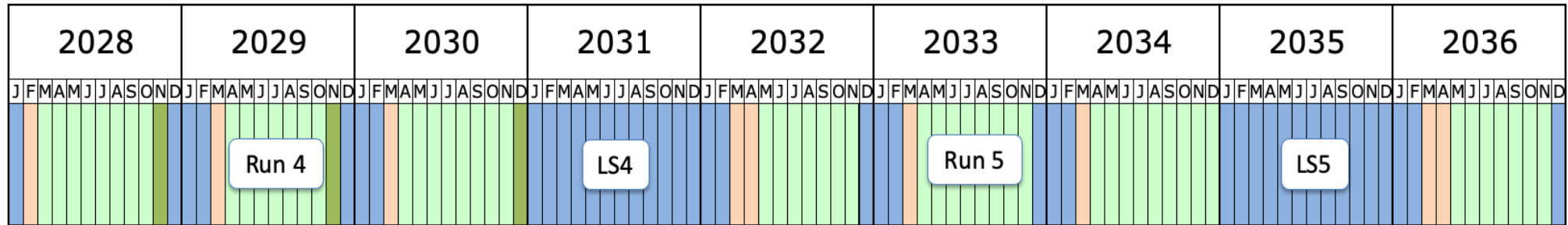
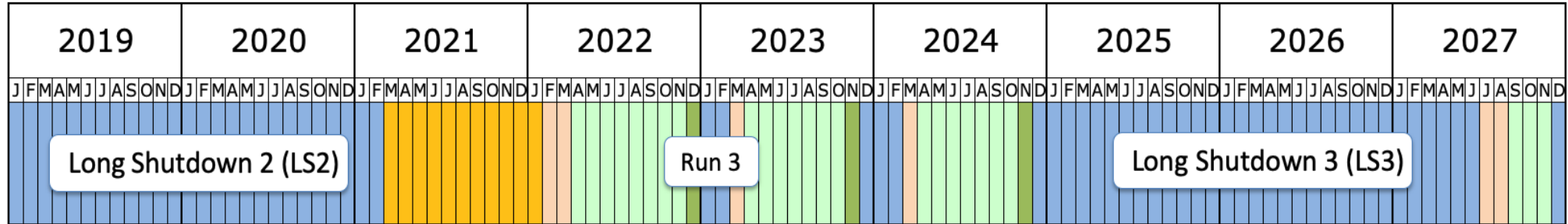
Ref: <https://twiki.cern.ch/twiki/bin/view/LHCOPN/LHCOPNEv4v6Traffic>

# New schedule for CERN's accelerators and experiments

- On 23 October, the CERN Management validated the new schedule for activities taking place during the second long shutdown (LS2), which began at the start of 2019. The schedule has had to be modified due to the COVID-19 pandemic.
- The new schedule for LS2 anticipates that the **first test beams will circulate in the LHC at the end of September 2021**, four months later than the date planned before the COVID-19 crisis. To give the LHC's main experiments – ATLAS, CMS, ALICE and LHCb – time to complete their own upgrade programmes, **Run 3 of the LHC will begin at the start of March 2022**.
- **No changes have been made to the schedule beyond 2022**. The third long shutdown (LS3) will begin at the start of 2025 and end in mid-2027

<https://acceleratingnews.web.cern.ch/news/issue-35/particle-accelerators-acc/new-schedule-cerns-accelerators-and-experiments>

# LHC schedule



<https://lh-commissioning.web.cern.ch/schedule/images/LHC-longterm-schedule-sep-20.png>



# CERN and Covid-19 restrictions

- Teleworking 100% restarted in November 2020 and currently extended till mid April 2021
- Access for visitors still very limited
- Travels not allowed yet

*Questions?*

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