Beyond 100G in CESNET
Two optical systems
- CISCO NCS
  - Recently modernized
  - Flexgrid
  - This picture
  - Approx ⅓ of all the footprint
- Czech Light OLS
  - near EOL... upcoming modernization

Main ring
- Praha - Hradec Kralove - Olomouc - Brno - Praha
- 100G in production
- 200G ready
- 400G trials
Example: Praha-BRNO

- CISCO NCS2K-1.2T-MXP
- Main line: approx. 300km, span loss range 13.5 - 22.5 dB, 4 spans, OSNR 16.2 dB 16QAM
- Backup: 464km, span loss range 13 - 24.5 db, 8 spans, OSNR 15.5
- One “ugly” span with 24.5 dB loss.
Network infrastructure for advanced research application

To employ most recent trends in networking

Semi-production
  ■ To allow solutions to prove itself
  ■ DCI over AW
    ■ Infinera G30
  ■ L2/3 - EdgeCore WEDGE 100G

Ostrava

Brno

Praha

CISCO DWDM Flex grid

Infinera G30

EdgeCore Wedge

200G+

200G+

200G+
Praha - Ostrava
- Infinera Grove G30 equipped by CHM2T unit
- 529 km
- 7 spans
- span loss range 13.7 - 24.5 db
- OSNR 22.2 dB from Prg 23.6 db from Ova
- 16QAM
- 75GHz channel
- preFEC BER 0.03089…
**500G test for CRP**

- **Praha - Ostrava**
  - Infinera Grove G30 equipped by CHM2T unit
  - 529 km
  - 7 spans
  - Span loss range 13.7 - 24.5 dB
  - OSNR
    - 22.2 dB from Prg
    - 23.6 dB from Ova
  - 16QAM
  - 75GHz channel
  - Pre FEC BER 0.4012...
  - Post FEC BER 0.0065
Thank you for your attention