



Belnet Network: Lockdown implications

Pieter Hanssens
30/06/20 – PoP Community Forum



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Lockdown implications



- Preparation: Italy follow-up and peer communication
- First reaction: upgrading Belnet external connectivity was ongoing, keep this as priority by any means necessary
- Fast reaction: upgrading Belnet customers in extraordinary circumstances, whilst keeping things stable
- Chain reaction: Network Freeze and regulator implication
- Major difference between the NREN network and the Internet Exchange

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Agenda

Automation

Call For Tender

Preventative Maintenance

Release Mgmt

Third Party overview

Automation @ Belnet



Why?

- Increasing numbers of machines to manage
- Reducing human error
- Consistent config
- Better lead times

How?

1. Create conventions & Standardize - Done
2. Consistency checks & Sanity checks - Ongoing
3. Generate config and Housekeeping!! – To Do

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Call For Tender: Network Equipment



- First implication of customers by opening up our offers via Framework Agreement
- Included 31 customers in the document
- Launch is foreseen end of August
- Reasons for different approach





Agenda

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Preventative Maintenance



- Done in 2019 for optical nodes, IP nodes and infrastructure
- All air-filters cleaned
- All batteries checked and replaced where applicable
- 1 major problem found: (ash / smoke damage) at Bastogne
- Extremely useful feedback about infrastructure

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Release Management



- Belnet has optical nodes, PoP IP infrastructure, CPE equipment, central appliances, management systems and overlaying tools
- Customers have online courses & exams, unified communications, central citizen tools, cloud services and many more
- Goal is to minimize risk by matching the schedules as close as possible
- Challenges: redundant hardware, 1st & 3rd party resources, ...





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Third Party View



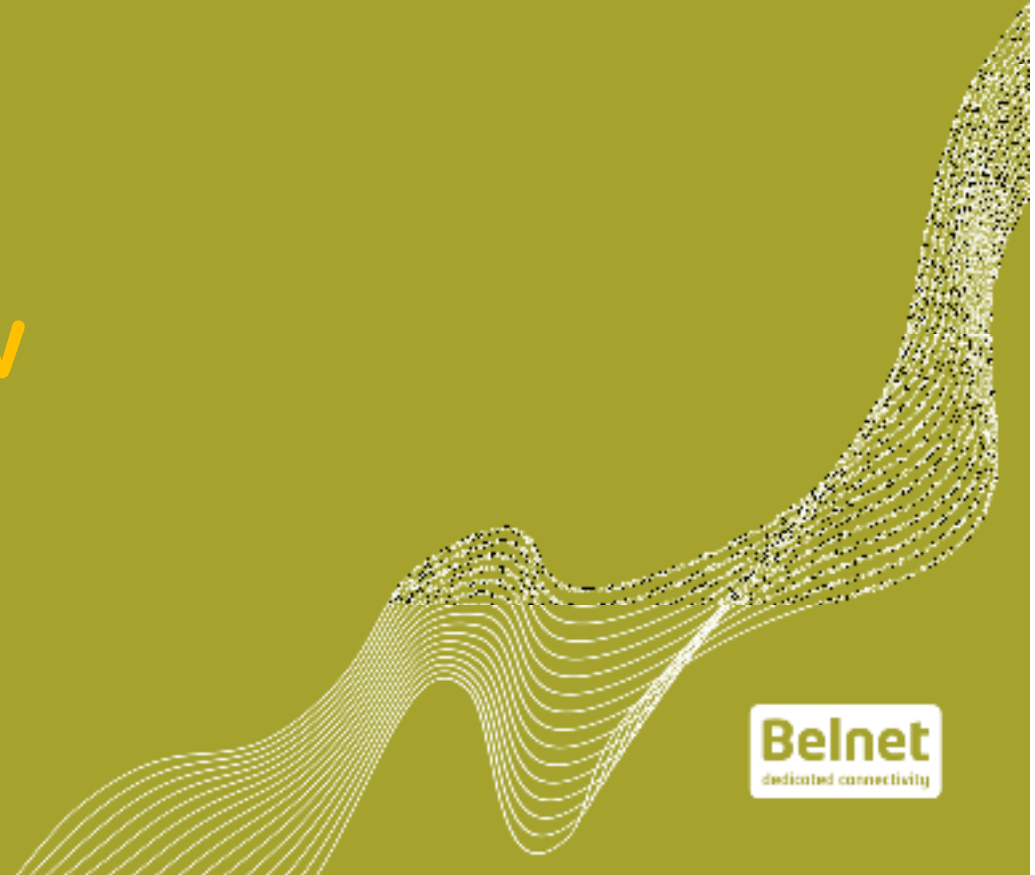
- Telco's (Proximus, COLT, Telenet, Eurofiber, VOO, Orange, Digipolis, Fluvius, MET, VO, commercial ISP's)
- Integrators: Securelink/Orange Cyberdefense, Arcadiz, Infradata
- Vendors: Ciena, Nokia
- Belnet





Agenda

Sneak Preview



Behind the Scenes



- Upcoming: Planned upgrade of Ciena nodes, start 17/08.
- Major upgrade of the external capacity nearly finished
- More connections to Géant and other NRENs
- BSR replacements ongoing
- New PoP/DC analysis
- Security improvements
- Technical development new services

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