

Project FENIX

Michal Halenka
Cape Town



NIX.CZ



Co-financed by the European Union
Connecting Europe Facility

NIX.CZ

Neutral platform for peering

7 data centers in Prague (3 in Bratislava)

157 connected networks

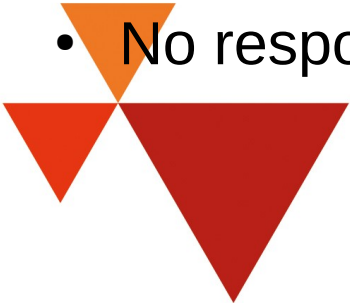
731 Gbps peak data flow

... and Project FENIX



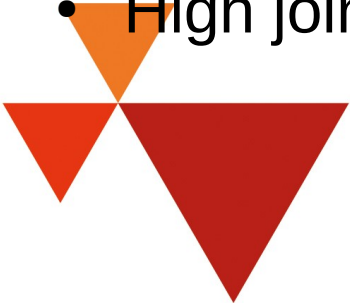
History

- Reaction to (D)DoS attacks in 3/2013
 - 4 days long
- Multiple CZ targets
 - media, banks, cell phone operators, Seznam.cz (czech „Google“)
- Lunch Break
- Source of attacks out of CZ (nothing from CZ)
- Through upstream and NIX.CZ
- No response source



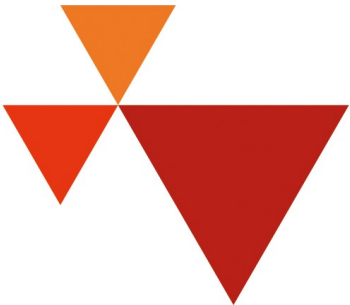
Idea of FENIX

- Club of „trustworthy“ companies
- Technical tool „Secure VLAN“
- Czech eyeballs can connect to local content
 - home banking, media, email, ...
- „Island“ mode as a last resort
- faster than regulations
- High joining conditions



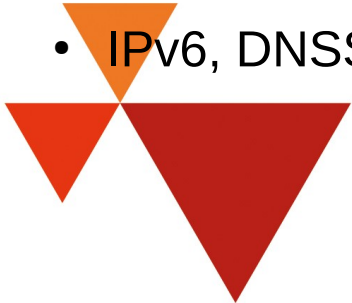
Conditions of FENIX

- End user terms and conditions (spam, attack, ...)
- 24x7 NOC with no IVR
- CSIRT team listed by Trusted Introducer
- Active participation
- Recommendation from 2 members, no veto



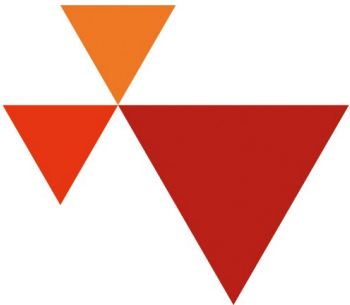
Conditions of FENIX

- BCP-38/SAC004 to prevent IP spoofing
- RTBH filtering using route servers
- Full redundancy on NIX.CZ
- Network monitoring
- Control plane policy (RFC6192)
- Amplification attack mitigation (DNS, NTP, SNMP, ...)
- Response on security incident time < 30 min
- BGP – TCP MD5
- IPv6, DNSSEC



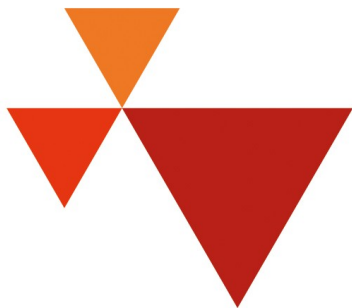
Birth of FENIX

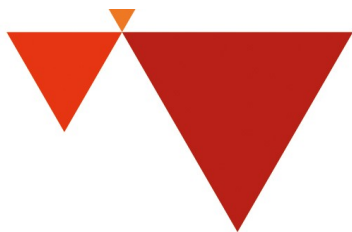
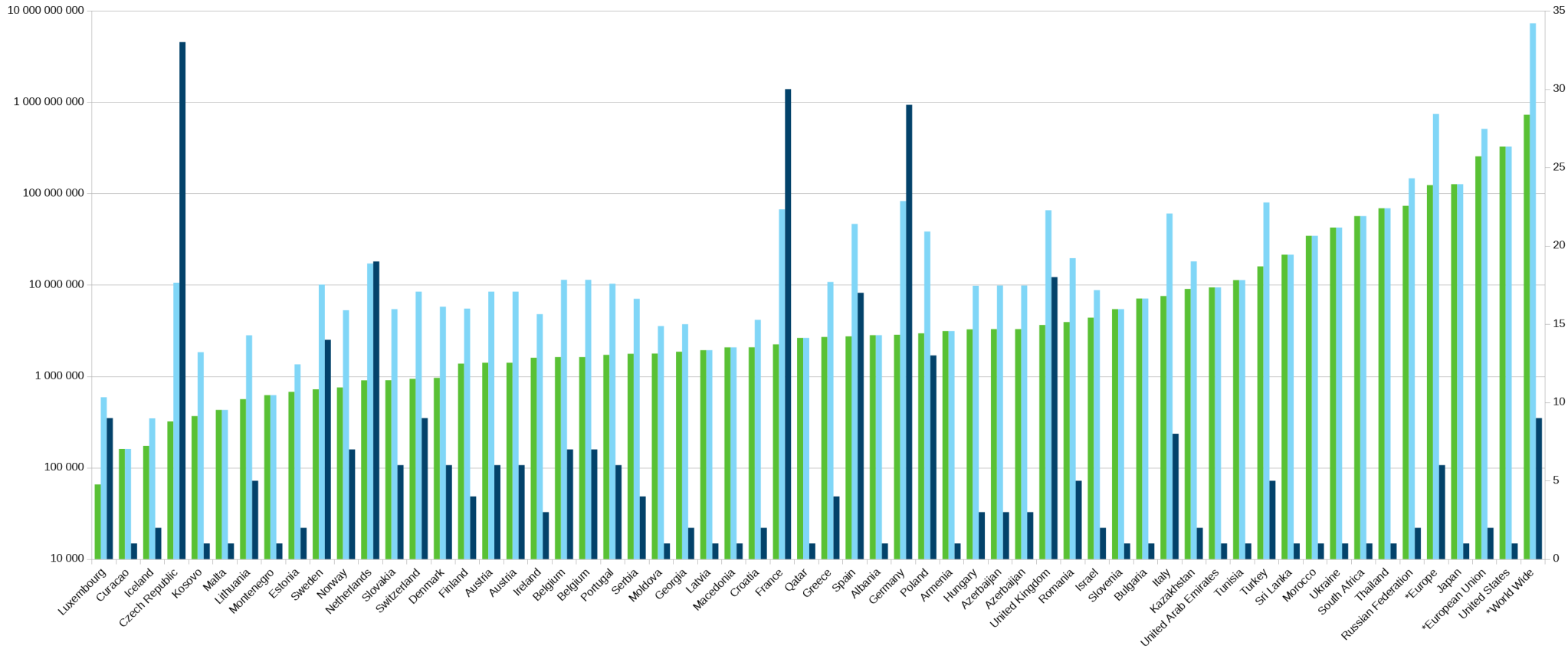
- 6 founding companies – January 2014
- NIX.CZ is supervisor over roles



FENIX today

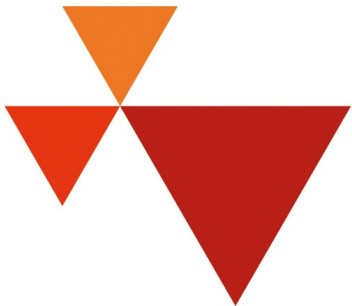
			
			
			
			
			
			





Working on

- Traffic filtration „as-a-service“
- Cooperation with government on cyber-related laws



Q&A

Michal Halenka
mh@nix.cz

