



# Altibox IPv6 Deployment Real Use Case

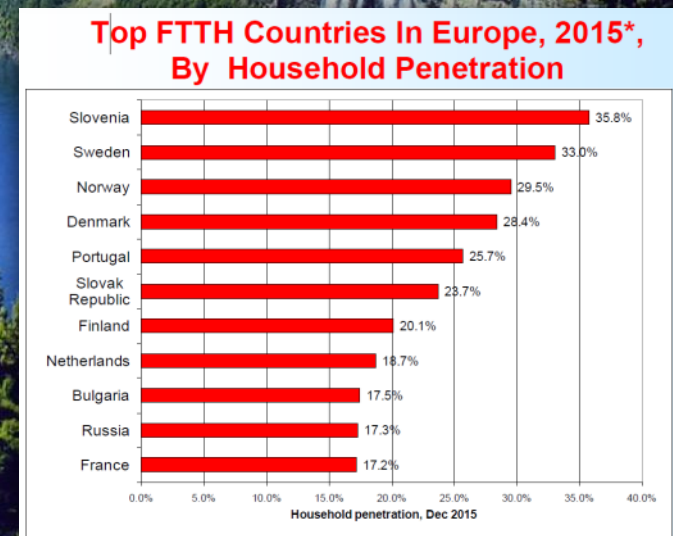
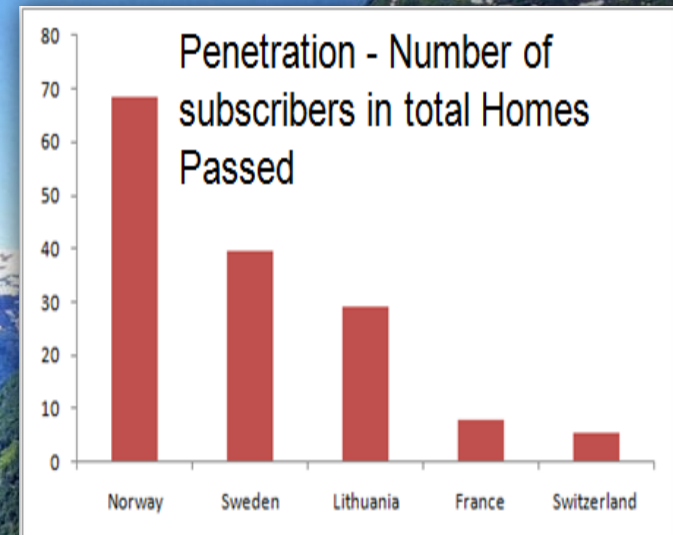
*Update 1*

Ragnar Anfinssen, Senior Architect IPv6, Altibox AS  
*RIPE 64, Ljubljana, April 19th 2012*

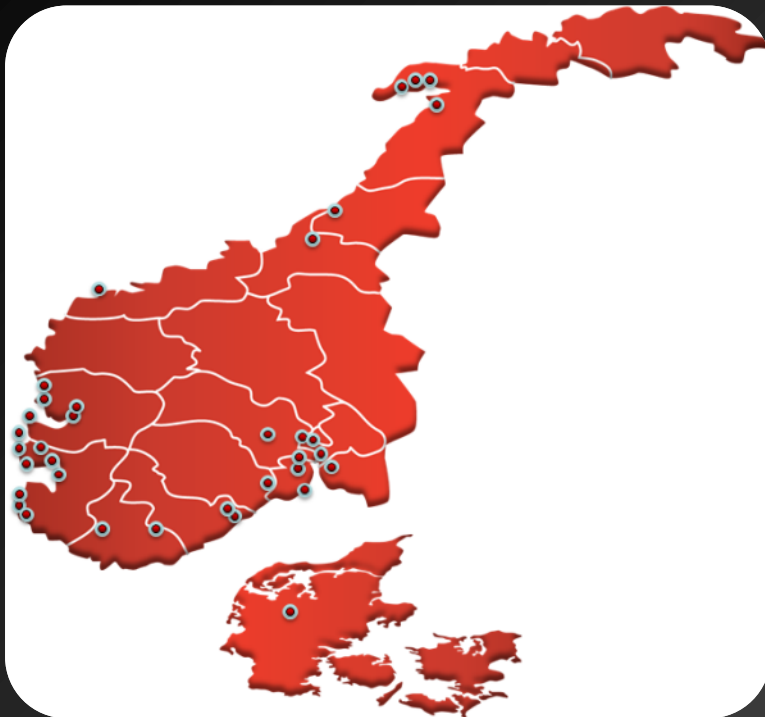


# Norway and Altibox – unique in Europe...

- Currently 250'000 connected customers
- Highest fiber penetration (70%)
- High coverage (25 % Homes passed)
- Strong fiber growth in a challenging physical environment (50.000 new customers per year)
- Altibox has 4 out of 5 fiber customers
- Incumbent on xDSL (27 % coverage on VDSL) and HFC
- Strongest fiber competition from HFC
- FTTH Council Europe Award winner in the Operator Category 2012



# 39 Norwegian and 6 Danish partners supply Altibox services to their customers



80 % of Norwegian fiber subscribers are  
customers of an Altibox partner



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**[http://ripe62.ripe.net/presentations/64-53-RIPE\\_62\\_Altibox\\_IPv6\\_Deployment\\_Real\\_Use\\_Case.pdf](http://ripe62.ripe.net/presentations/64-53-RIPE_62_Altibox_IPv6_Deployment_Real_Use_Case.pdf)**



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# What's new?

- Project on hold
- New CPE from ZyXEL, supports both DS and 6rd
- Redesigning access network, production start Q1 2013
- Do not expect to get more IPv4 allocations, depletion date know
- First Hop Security (FHS) delayed – mandatory for running native IPv6 in a N:1 shared Vlan network

# New features required on Access Router platform

- DHCPv6 Relay (Option 82) – Not new feature, just a bug...
- Lock L3 ► L2 mapping so that no one can take over someone else's CPE address. (= DHCP Mapping + ARP Inspection)
- PD ► L3 ► L2 mapping, so that no one can take over someone else's delegated prefix.
- Prevent rogue DHCP and RAs among customers. (= IPv4 ARP Inspection)
- Prevent DoS attacks.
- Waiting for final commitment dates from vendor. Q2 2012 is indicated!!!

# What now?

- Hope router vendor do some magic?
- Wait?
- Go for Plan B?





# More important...

- Running out
- Cannot stop doing IPv4
- Must prioritize customer growth
- Implement CGN



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# Consequence

- Probably not do DS in current network design, wait for new version
- CPE capable of doing 6rd, do plan B?
- Hoped to offload CGN with native IPv6, reduce cost
- CPE no longer the problem, router vendor is



# Questions?

Mail: [ragnar.anfinsen@altibox.no](mailto:ragnar.anfinsen@altibox.no)

Previous presentation found here:

[http://ripe62.ripe.net/presentations/64-53-RIPE\\_62\\_Altibox\\_IPv6\\_Deployment\\_Real\\_Use\\_Case.pdf](http://ripe62.ripe.net/presentations/64-53-RIPE_62_Altibox_IPv6_Deployment_Real_Use_Case.pdf)



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