

# Bifrost Seminar 2012-11

# Håltider

09.30	Frukostfika
10.00	Start
12.00	Lunch
14.00	Eftermiddagsfika
16.00	Avslut

10.00	Pres. Resilans	Danlel Stolpe
	CWDM, DWDM, EDFA	Bernt Sundström
	bfdd/quagga	Voravit/Siraj/KTH
	Quagga	Bengt Görden
	Child Abuse filter	Fredrik Widell
	ARM-based networking	Henrik Nordström
	Raspberry pi	Alp Sayin, Henrik Nordström, Robert Olsson, others
	DOM in 5 min	Robert Olsson
	Vanilla Linux on telephones	Patrik Lidehaell
	CoAP/Contiki	Robert Olsson/UU/KTH
	UNET news/status Activites	Patrik Lidehaell/KTH
	pktgen_RX (pktrec)	Bengt Görden
	WSN uplinks	Alp Sayin/KTH
	Bifrost status	Jens Laas/UU
	Network Sniffing	Arne Nilsson/UU
	cligen	Olof Hagsand
	git & github	TBA

# Progress of Quagga

Bengt Gördén  
Resilans AB

Let us create  
quality  
in your net

# "Soppan/the mess" Quagga

- As we all know Quagga is a fork of Zebra
- Official repository on Savannah
- Notable "forks" of Quagga
  - EURO-IX Quagga ([opendev.org](https://opendev.org/ix/quagga), source on github)
    - A fork/branch to get vendor specific patches
    - Currently on Quagga 0.99.20
  - Quagga-RE (source on github)
    - Started to get a more stable release cycle
    - Based on 0.99.17 (currently on 0.99.17.11)
  - Rpki Quagga (LACNIC)
  - Vyatta
  - Google
    - ISIS, BGP-MP

- Bad performance with multiple tables and lots of peers
- ISIS to buggy
  - 15 "MUST" bugs needs to be ironed out

# Major bugs

- Route Recursion
  - Indirect BGP routes not or wrong installed to RIB
- BGP Route Decision
  - Lowest peer as tie breaker in best path decision
- BGP Aggregate
  - Multiple bugs in BGP route aggregation

# Focus for OSR (EURO-IX) Quagga

- ISIS/OSPF

- Fixing ISIS (IPv4) to get it to a useable state
- OSPF unnumbered interfaces
- IGP Stability fixes

- Data structures

- Trying to improve internal RIB structures
- (Cleanup and Performance Changes)

- API

- Add API to decouple FIB updates from the OS below and allow forwarding engines to subscribe to direct updates from Zebra

# Other routing engines

- OpenBGPD
- BIRD
- XORP
  - Pica8

# pktgen-rx/pktrec

- Daniel Turulls patches were refused by DM
- Technically right?
- What to do about it and do we want to do something about it?
- Is Dave's comment regarding tracepoints valid?

# pktgen-rx/pktrec

From Dave Miller on linux kernel mailing list netdev

*I completely disagree with this patch on two levels:*

- 1) pktgen is for "generating" packets, not receiving them. Trying to put lipstick on a pig is never a good idea.*
- 2) The information it gathers and shows is completely useless. What's interesting as "RX work cost" is what happens deep down in the netif\_receive\_skb() code paths, IP input, Routing, netfilter, whatever... but that is not what this thing is measuring at all.*

*Sorry, I'm not applying this. You can probably do something more clever with tracepoints.*

# Links

## OSR

- <http://opensourcerouting.org/>
- <http://confluence.isc.org/dashboard.action>
- <https://github.com/opensourcerouting/quagga>

## Quagga-RE

- <https://github.com/Quagga-RE/quagga-RE>

## Main line Quagga

- <http://www.nongnu.org/quagga/>
- <http://git.savannah.gnu.org/cgit/quagga.git>