Open Source Routing Experinces
at
Uppsala University

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2008-04-16

Agenda
Open Soure Routers (OSR)

Robert Olsson &
Hans Wassen   &
Emil Pedersen   OSR experiences at Uppsala University (40)

Tom Johans   OSR experiences at SLU   (15)

Coffee break

Dag Berge   OSR project at KTH,   (15)

Olof Hagsand/Bengt Görden.
                       IIS 10g bifrost router project   (25)

Björn Pehrson   Possible use of OSR   (15)

Discussion

10 years in production

- Three major installations

- UU core routers towards SUNET
- UU Student Network 30.000 students
- ftp.sunet.se

Testing, Verification Development & Research

- Started out as simple testing.
- Curiosity, Open Source, Collaboration

- Relatively freedom, the idea to use in own infrastructure. No need for external funding.

- OS was intended for desktops.

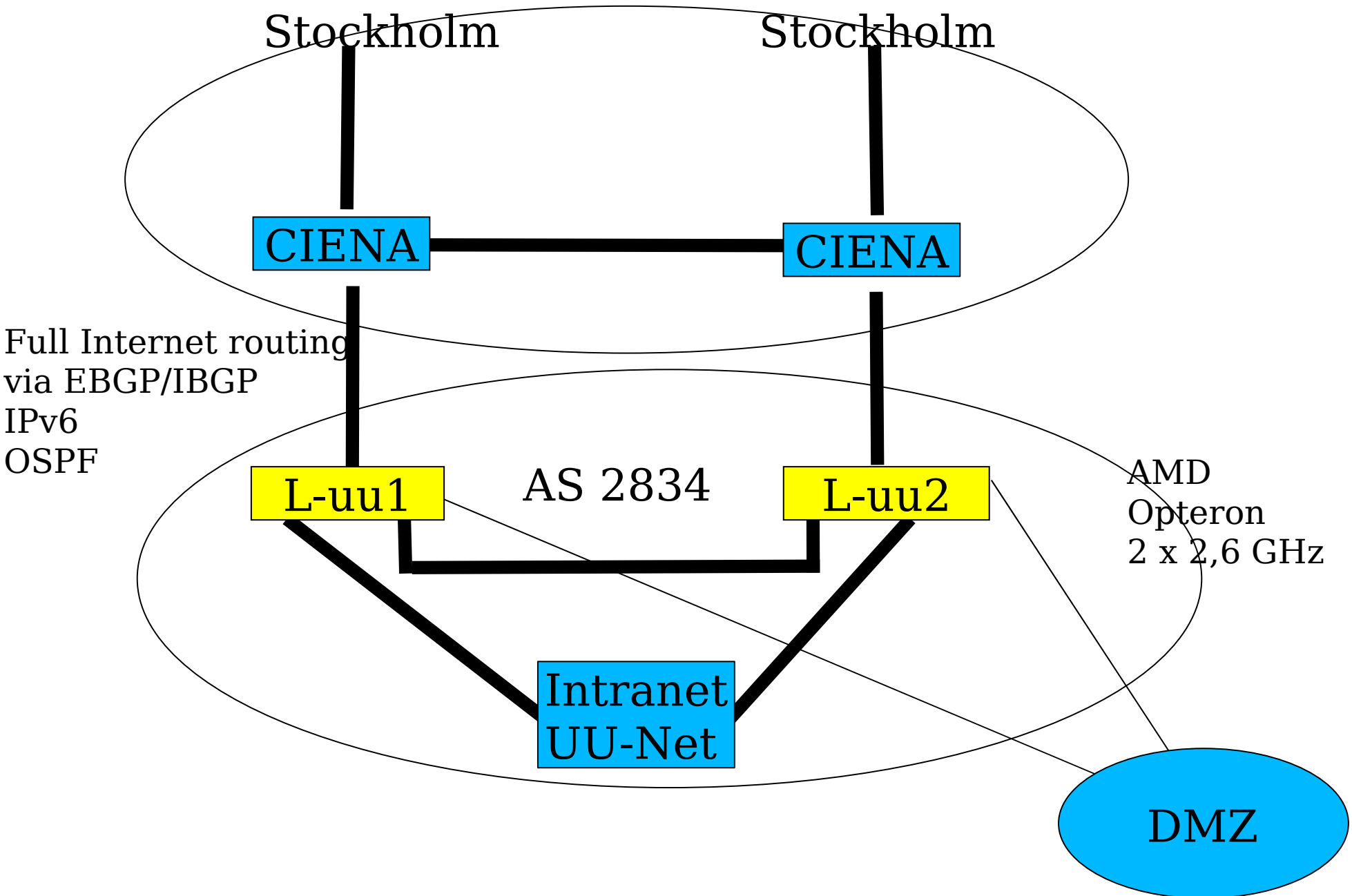# Testing, Verification Development & Research

No need for test network. We could test in own infrastructure. (Or SLU)

Problem oriented vs Project oriented
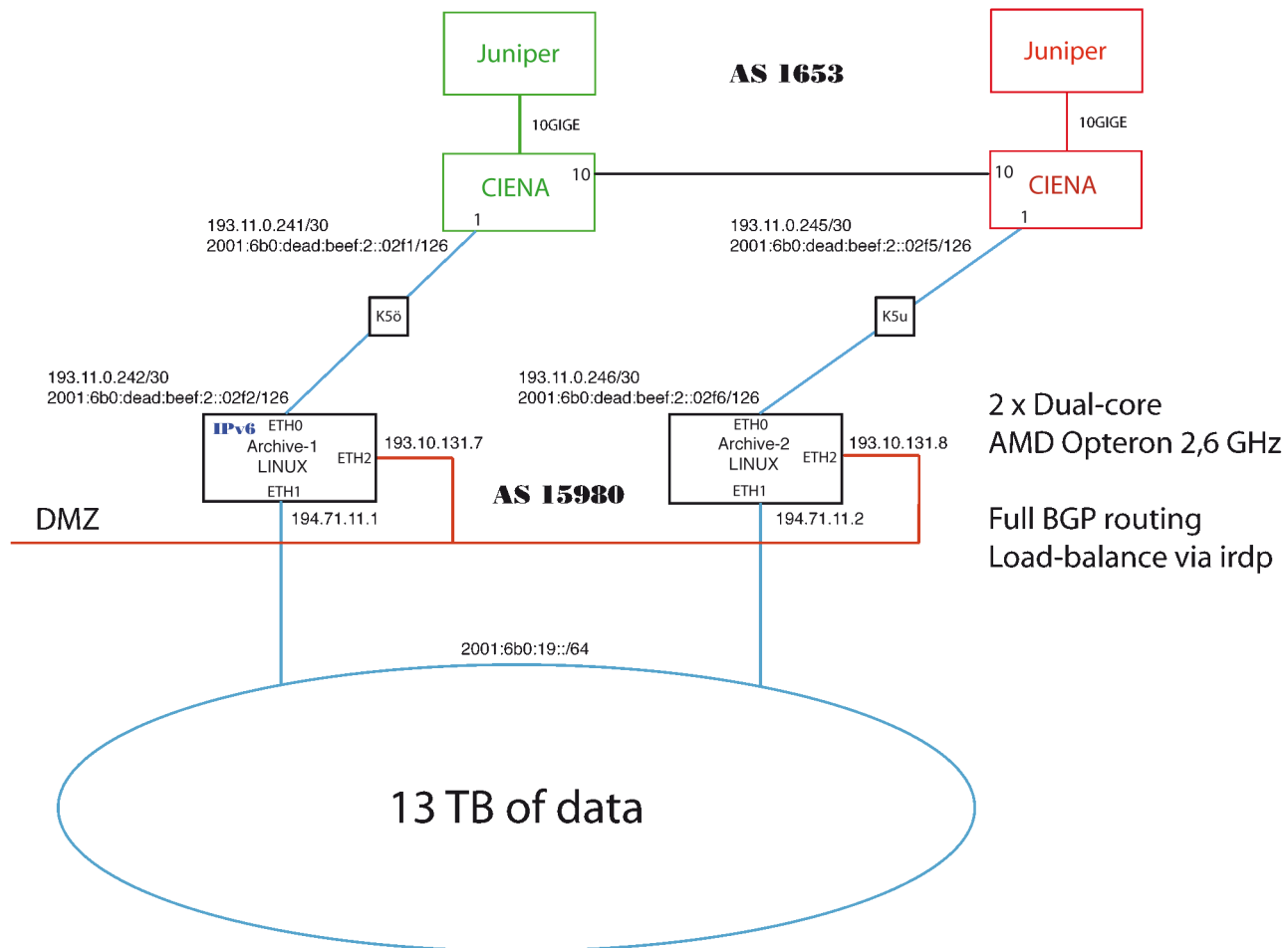
We could work on complicated issues

- NAPI 3years
- pktgen 2years
- fib_trie 1year
- TRASH 1year

BIFROST in use: uu.*se*

Stockholm   Stockholm

CIENA   CIENA

Full Internet routing
via EBGP/IBGP
IPv6
OSPF

L-uu1   AS 2834   L-uu2   AMD
Opteron
2 x 2,6 GHz

Intranet
UU-Net

DMZ

FTP
The SUNET FTP-Archive

Hardware

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Bifrost components 2008-01-03
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This represents equipment which have "passed" our tests at some point of
time.
NOTE. This implies no guarantee whatsoever.


Hi-End Opteron system:

TYAN Thunder n5550W (S2915-E)          1 *
256 MB Reg ECC PC3200 (400 MHz)        4 *
Opteron dual core 2222 processor       2 *
4U Chassi                              1 *
USB memory stick                       1 *


Option:
Redundant power supply
 EMACS MRG-6500P Redundant PSU 2x500W

Intel Corporation 82571EB GIGE based Network cards
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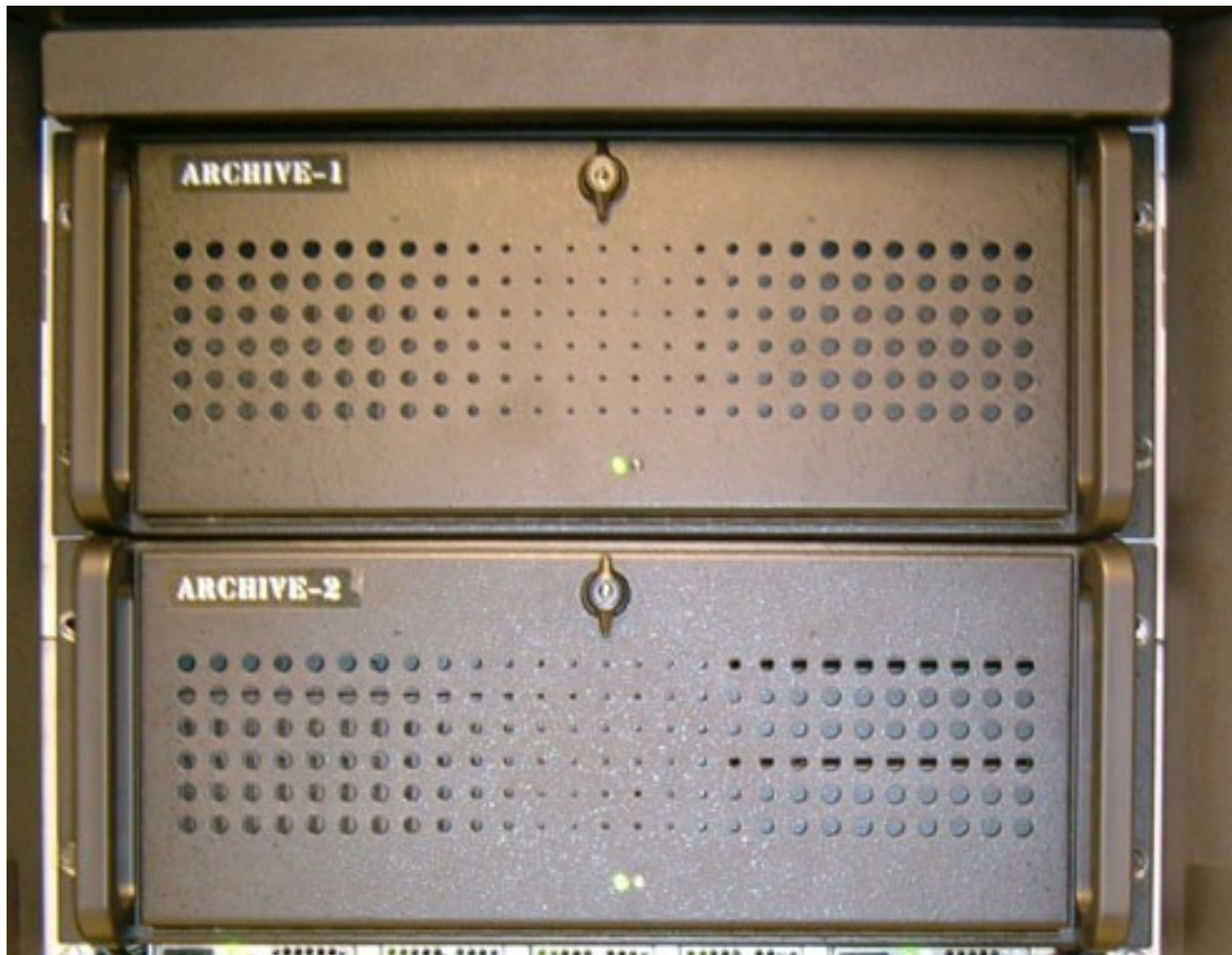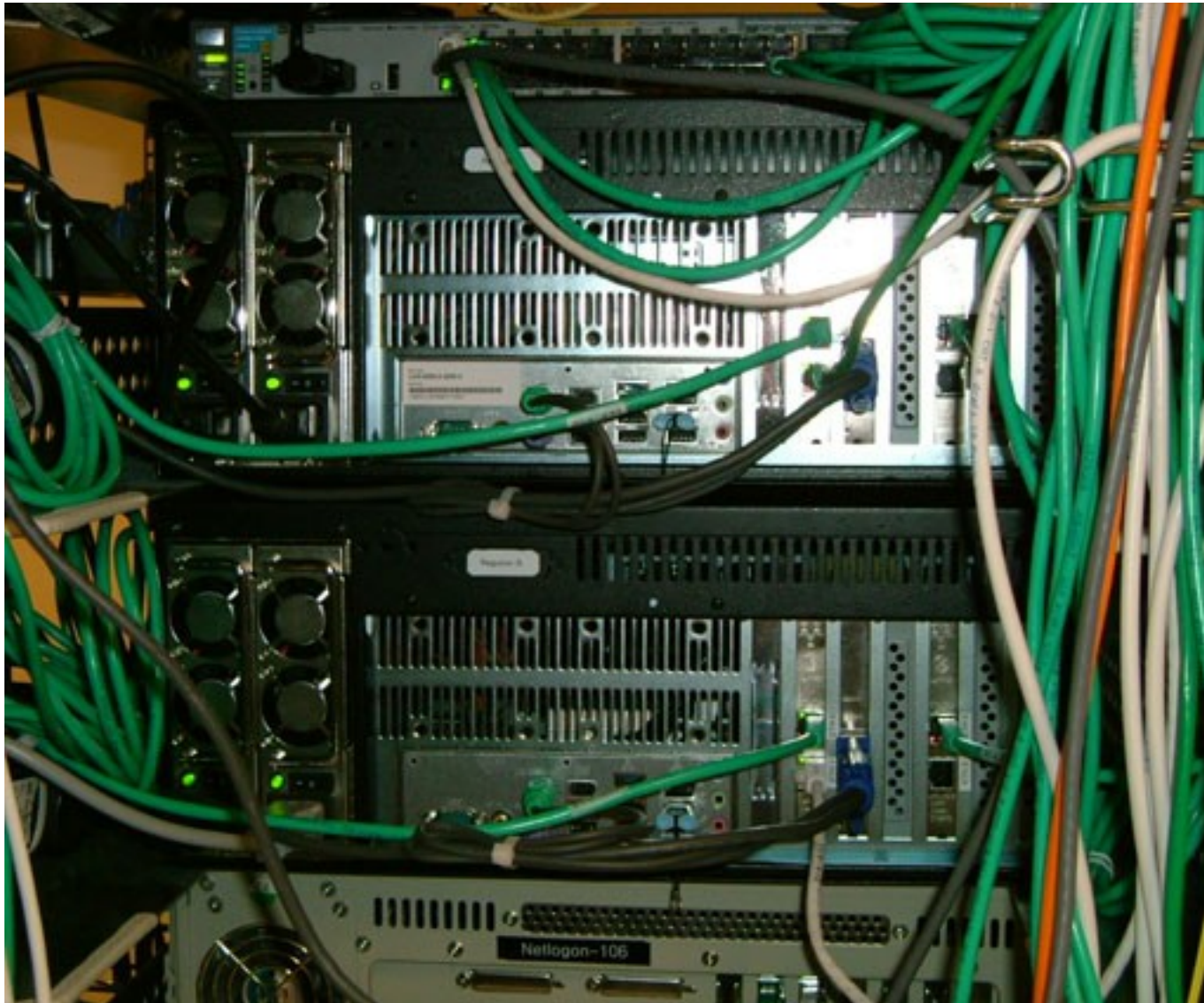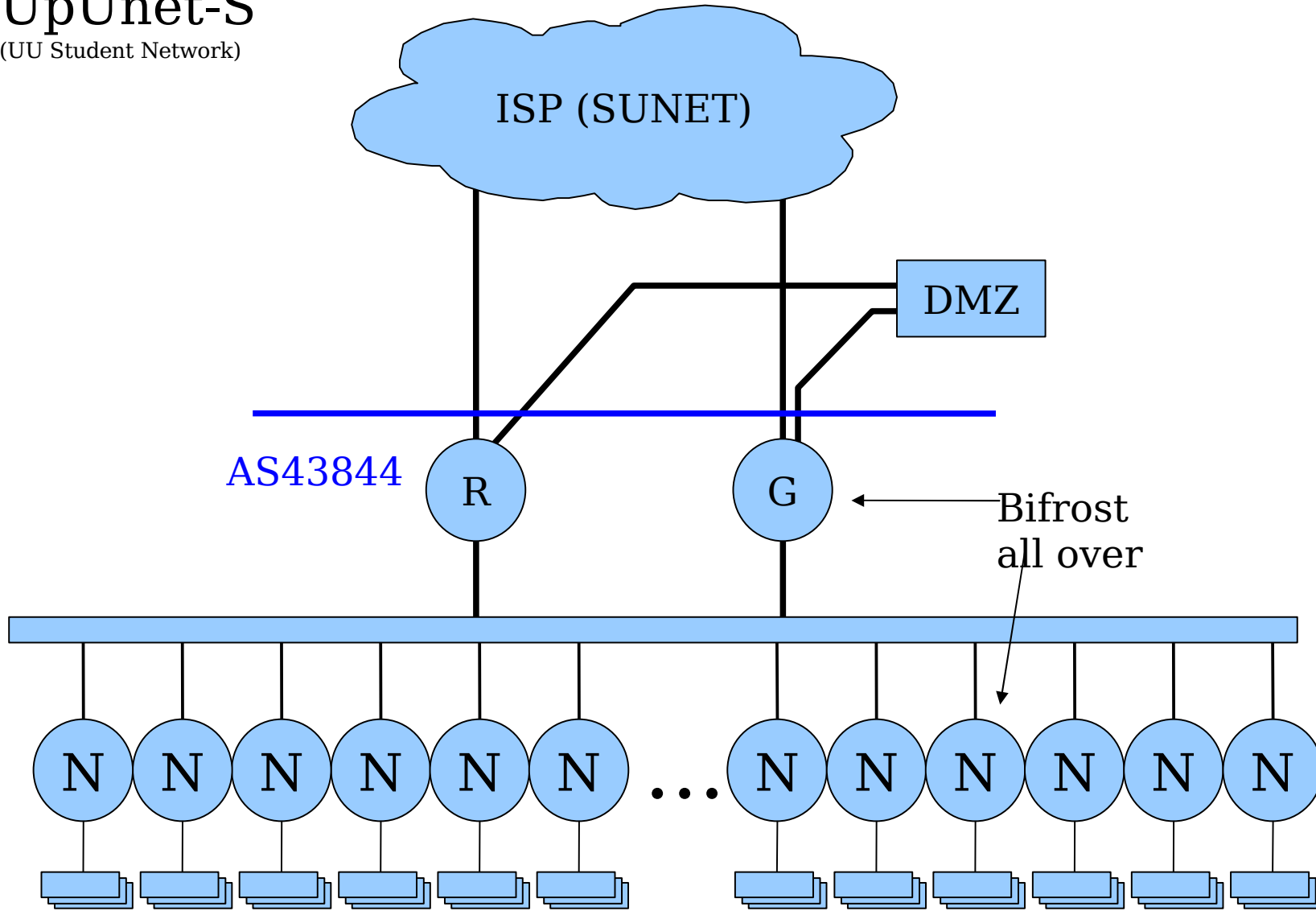
L-uu1

FTP

UpUnet-S

Lab

Prominent visit 1999
Alexey Kuznetsov

UpUnet-S
(UU Student Network)

ISP (SUNET)

DMZ

AS43844

R

G

Bifrost
all over

N N N N N N ... N N N N N N

A new network symbol has been seen...

The Penguin Has Landed