utc
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Google

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Improvements of the SMTP-routing architecture at Google

GOOGLE

- 50+ offices
- 20+ countries
- 20000+ employees
- Dozens of facilities
- Hundreds thousands of servers

Working from

- London
- Dublin
- Zurich
- Paris

Working with

- Moutain View
- Seattle
- San Diego
- Dublin

Google
SysOps
SMTP team
Ubiquity team

- Virtualization Team
- OS Team
- Hardware Ops

ARCHIVE DELIVERY

What ?

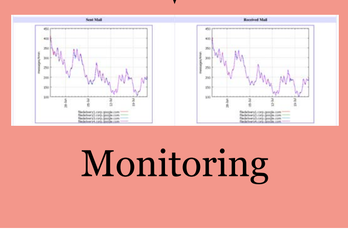
- System obsolete
- Mail archive service
- Perf improvements

How ?

Specification

Cycles of Benchmark / tweaks

Production



Monitoring

15%

- 4 servers
- Indirect users

- Learning google internal tools
- Large scale, every detail important

SMTP ROUTING

What ?

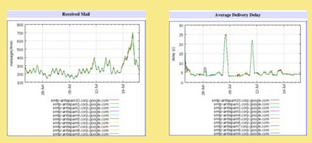
- Mail routers
- Antispam
- Antivirus
- Throttling

How ?

Writing benchmark tools

Cycles of Benchmark / tweaks

Production



Monitoring

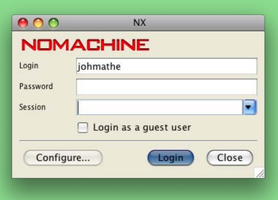
65%

- 30,000 users
- SLA : 99.999%
- 6 VIPs of 10 nodes
- 3 datacenters

- Large scale deployment
- Work with various teams

FREENX-NG

What ?



- Thin client
- Linux boxes
- Client-server
- "Intelligent VNC"
- Shadowing

Why ?

Thousands of nodes
↓
Commercial Software
↓
Need access to the code
↓
Contribut to OSS Community

How ?

Reverse Engineering

Code

Reviews

Packaging

20%

- 4,000 users
- OSS Project

- Developpement methodology (XP, agile)
- Strong coding standards
- Team of 3 engineers