State of BSD
NetBSD

Alistair Crooks
agc@netbsd.org
c059 6823

Review of 2009

- A great year!
- NetBSD 5.0 released
- New board
- Core team Changes
- Two pkgsrc quarterly releases

Lest we forget...

- Kerberos infrastructure
- New machines
- pkgsrc.* domains moved

NetBSD®

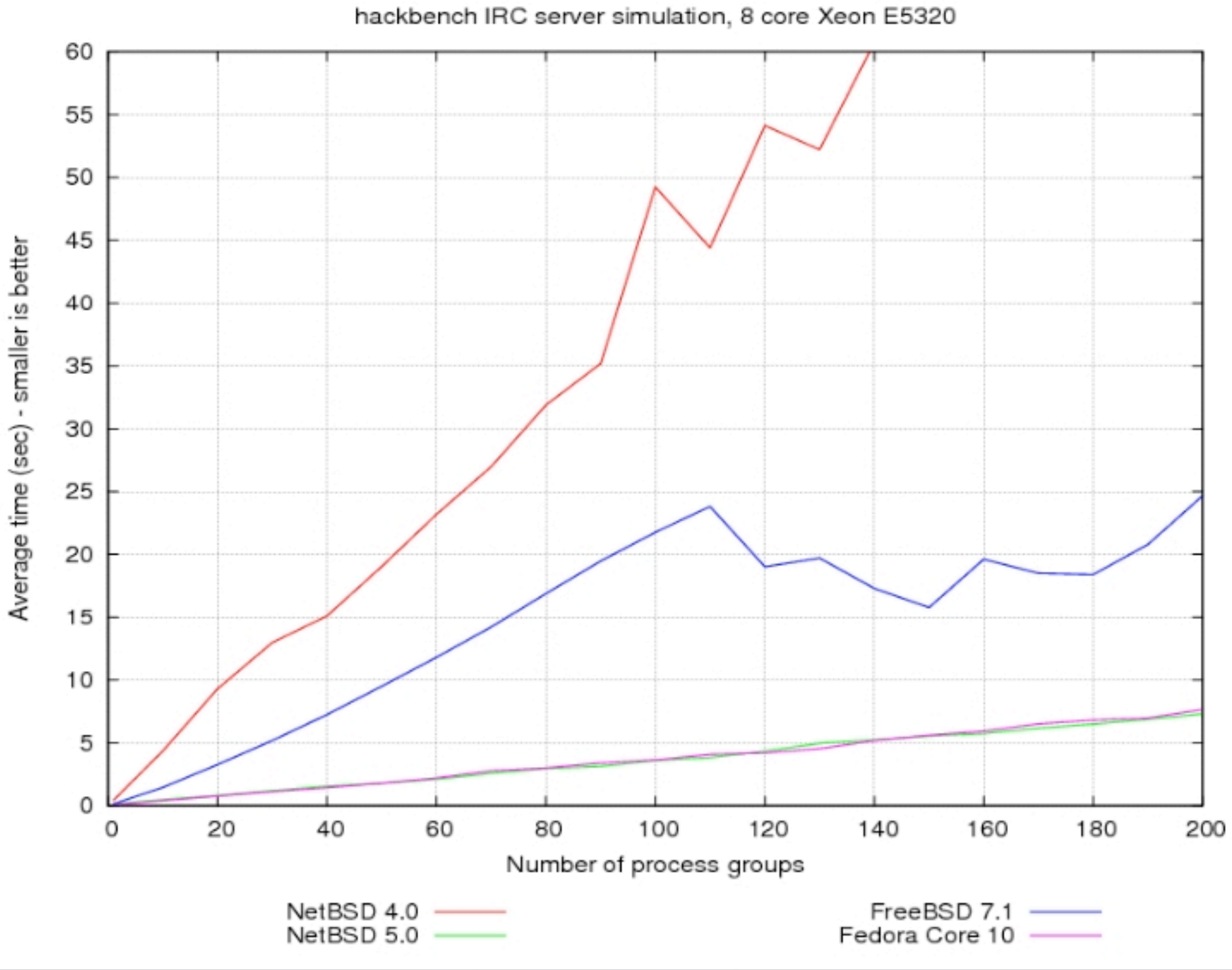
Dingbat Free!

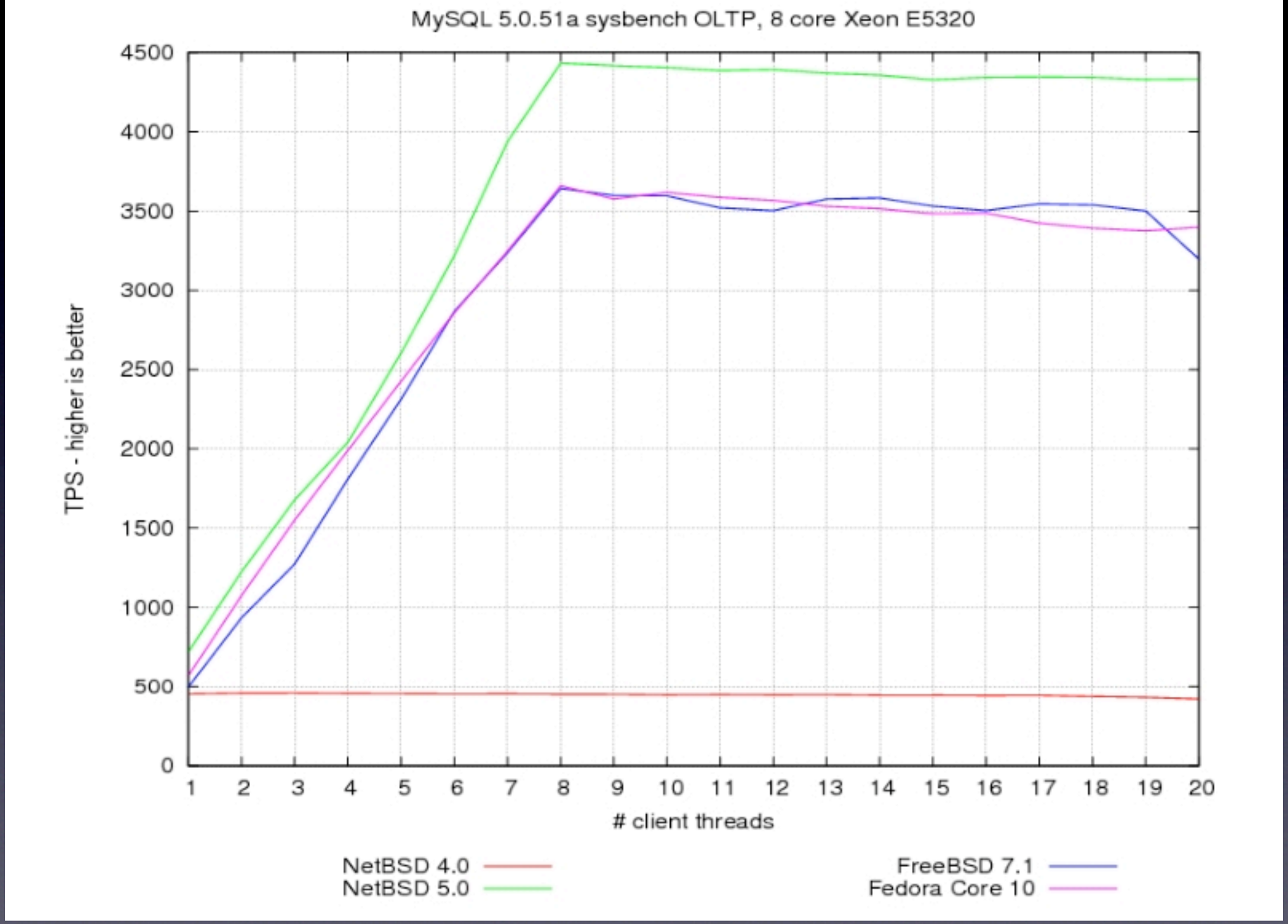
Today

- NetBSD 6.0
- pkgsrc - 2009Q3 freeze starts on Monday
- roadmaps

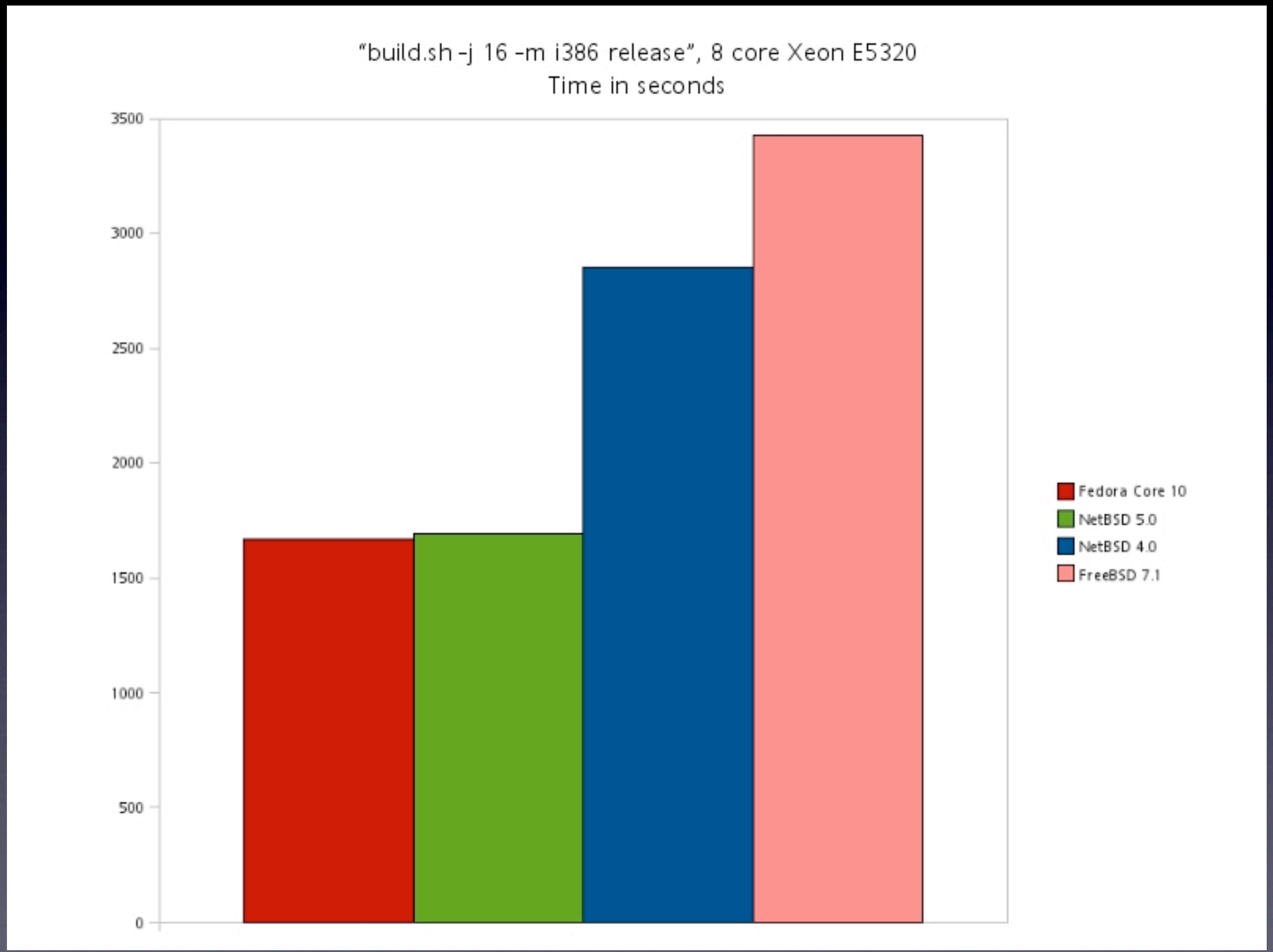
NetBSD 5.0

- Releng
  - snj is a rock star
- Released April 29th 2009
- http://www.netbsd.org/~ad/50/

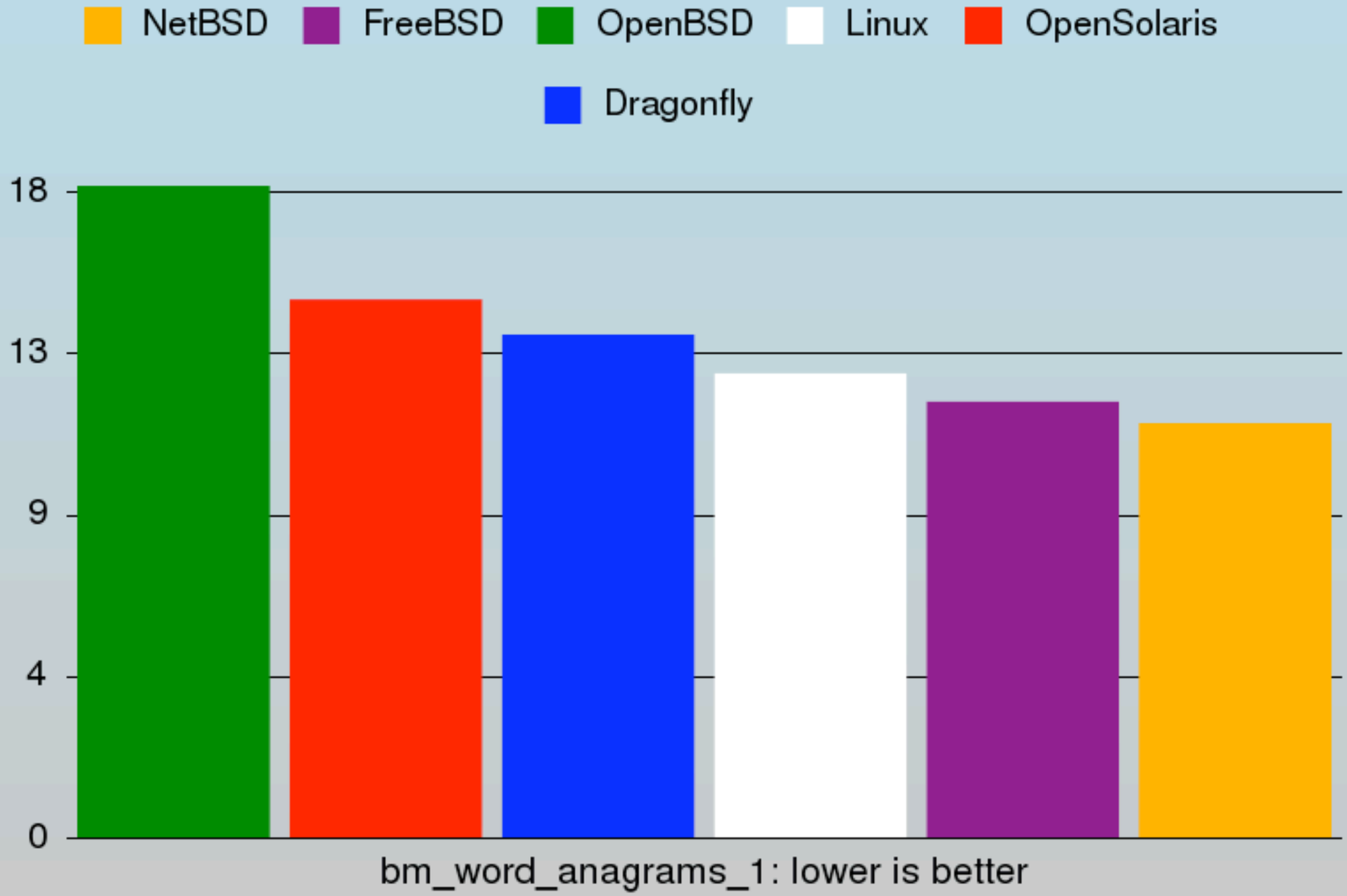

hackbench IRC server simulation, 8 core Xeon E5320
Average time (sec) - smaller is better
Number of process groups
0
5
10
15
20
25
30
35
40
45
50
55
60
0
20
40
60
80
100
120
140
160
180
200
NetBSD 4.0
NetBSD 5.0
FreeBSD 7.1
Fedora Core 10


MySQL 5.0.51a sysbench OLTP, 8 core Xeon E5320
TPS - higher is better
4500
4000
3500
3000
2500
2000
1500
1000
500
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
client threads
NetBSD 4.0
NetBSD 5.0
FreeBSD 7.1
Fedora Core 10

build.sh -j 16 -m i386 release



Ruby Bench: bm_word_anagrams_1



Community

- Blog
- Wiki
- Evangelism

Funded Projects

- Way behind Linux in funding
- By targetting what we need
  - we get what we want
- Rules for what is a targeted project
- Project RFPs are available now

6.0 and beyond

- Some changes already in repository
- Already on 5.99.18
- Roadmaps

NetBSD®

Blackwall Tunnel Northern Approach
1600m
3.2
0:03:24
17:00
Menu
Saint Marks
Cadogan Terrace
Chapman Road
70
East Cross Route

Roadmaps

- in src/doc/roadmaps
- system
- virtualization
- networking
- storage

System - in repo

- 64bit time_t
- kernel modules
- namei() improvements

System - to come

- kernel pre-emption for real-time threads
- POSIX shared memory
- Better resource controls
- online crashdumps, remote debugging
- processor & cache aware scheduler
- namei() - strategic cleanup

Networking

- Mobile IPv6
- SCTP
- TCP support in libsa
- netboot from HTTP

Storage - in repo

- LVM
- ZFS
- iSCSI initiator
- RUMP extensions

Storage - to come

- devfs
- in-kernel iSCSI initiator
- ReFUSE low-level
- Virtualised disks

Virtualization

- NetBSD/usermode - research project
- Xen domU migration, suspend & resume
- Xen balloon driver

Virtualization

- gaols via kauth
- iSCSI booting - in-kernel initiator
- iSCSI device cloning

Security

- RBAC kernel
- kauth with more scopes
- gaols
- netpgp

NetBSD 6.0

- Branch March 2010
- Looking to release 6.0 over summer

Thank you.
Any questions?

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