

KAMEプロジェクトの現状と今後

(Current Status and Future Plans of the KAME Project)

JINMEI, Tatuya

Toshiba Corporation/KAME Project

jinmei@{isl.rdc.toshiba.co.jp, kame.net}

The KAME Project

A single effort

- 9 core members from 8 Japanese companies
- Fujitsu, Hitachi, IIJ, MGCS, NEC, Toshiba, YDC, Yokogawa
- April 1998 - March 2002
 - Reorganized in April 2000.

Reference code

- IPv6, IPsec, and advanced networking
- Provided "AS IS" like BSD
 - Free and no warranty, commercial use is OK
- BSD/OS 4.2, FreeBSD 4.x, NetBSD 1.5, OpenBSD 2.7-, IIJ SEIL T1, Hitachi GR2000, Fujitsu NetVehicle

<http://www.kame.net/>

Brochures are available at the registration desk.

Results from April 1998

IPv6

- Basic specifications
- Routing
 - RIPng, BGP4+, OSPFv3, PIM-SM, PIM-DM
- Translator
 - TCP relay, protocol translator
- Applications
 - HTTP, FTP, POP, SMTP, DNS, TELNET, SSH, NFS, PPP, ...

IPsec

- Basic specifications
- racoon IKE daemon

Others

- IPcomp, ECN, ALTQ

Publications

- Internet Drafts, Papers, Magazines

Events

- N+I, INET, IPv6 summit

Merge status and plans about BSD variants

	IPv4-IPsec	IPv6	IPv6-IPsec	KAME patch
BSD/OS 3.1	No	No	No	Yes
BSD/OS 4.2	KAME	KAME	KAME	notyet(planning)
FreeBSD 2.2.8	No	No	No	Yes(no SNAP)
FreeBSD 3.5	No	No	No	Yes(no SNAP)
FreeBSD 4.2	KAME	KAME	KAME	Yes
FreeBSD-current	KAME	KAME	KAME	No
NetBSD 1.5	KAME	KAME	KAME	Yes
NetBSD-current	KAME	KAME	KAME	No
OpenBSD 2.8	OpenBSD	KAME	OpenBSD	Yes
OpenBSD-current	OpenBSD	KAME	OpenBSD	No

New release policy

- SNAP releases

- will be provided on every Monday as before.
- for hackers/researchers.

- STABLE and RELEASE were discontinued.

- *BSD official releases should be used for "normal" users.

- "documentation week"

- review and rewrite documentations provided by KAME.
- the exact schedule is not determined, but approx. every two-months or so.

Plans of future development

□ Advanced topics of IPv6

- multihoming, renumbering
- scoped address architecture/scoped routing
- stabilization and deployment of OSPFv3 and PIM-SM
- anycast
- prefix allocation for dial-up users
- zeroconf environment support
 - mDNS, DHCPv6, DNS server discovery
- mobility

□ IPsec

- wider deployment of IKE
- relationship with mobile IP(v6)

□ Other topics

- routing table clarification
 - equal-cost multipath, generic interface of multicast routing entries
- new/advanced hardware support
 - hardware forwarding engine, crypto engine

Plans on deployment efforts

- Increase portability of applications.
 - clarification on standard APIs.
 - documentation about portability issues.
 - TCP port number space, Address Family dependency, UDP and path MTU.
- Develop and deploy more IPv6-capable applications.
 - Apache2, Python, radius, SNMP transport, X window, NFS.
 - Co-operation with other development teams.
- Publications/Events
- Inventing new applications for IPv6.
 - cellular phone, Internet cars, home network, games...