Solaris IPv6 Naming Services

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Solaris IPv6 Naming Services

First Release of IPv6: What will be provided

◆ **IPv6 host to address translations**

◆ **IPv6 host address support for NIS, NIS+ and DNS**

◆ **IPv6 host database accessible through the Name Service Switch**

◆ **IPv6 host addresses cached in the Name Service Cache Daemon (nscd(1m))**

◆ **100% backwards compatible with existing IPv4 clients**

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First Release of IPv6: What won't be available

◆ **Name services over IPv6 transports**

◆ **Administration tool support**

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IPv4 & IPv6 Addresses Stored Separately

- ◆ **NIS map, NIS+ table and /etc file created for IPv6 addresses**

- ◆ **Prevents existing IPv4 applications from unexpectedly receiving IPv6 addresses**

- ◆ **Separate IPv6 database can be served by older slave/ replica**

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Server Side Changes

New IPv6 host database created

- ◆ **hosts6.byname/hosts6.byaddr maps for NIS**

- ◆ **hosts6.org_dir table for NIS+**

- ◆ **"AAAA" record for DNS**

- ◆ **/etc/inet/hosts6 file for local file**

- ◆ **Updated utilities to create hosts6 database (ypmake(1M), nisaddent(1M), nispopulate(1M), etc)**
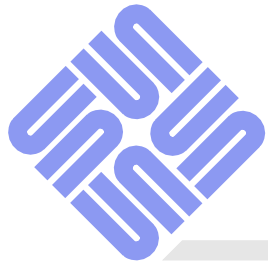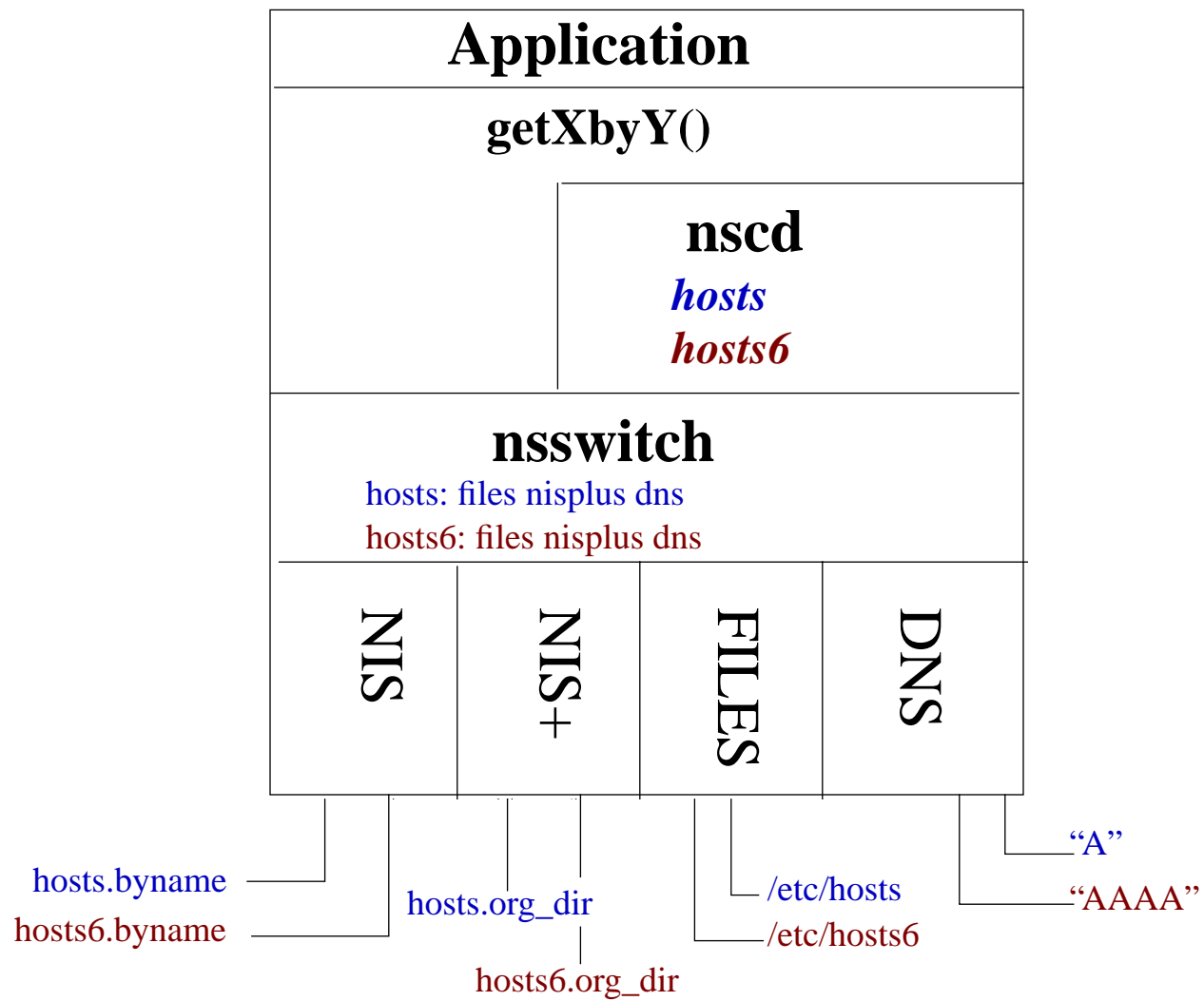
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New getXbyY() interface created for IPv6 host-to-address translation

◆ **gethostbyname() will remain unchanged**

◆ **New getnodebyname() interface to access IPv6 and mapped IPv4 addresses for IPv6 hosts (RFC 2133)**

◆ **Name Service Switch will use separate lookup policy for hosts6 database**

◆ **Name Service Cache Daemon (nscd(1M)) will cache IPv6 addresses**

Application

getXbyY()

nscd

hosts

hosts6

nsswitch

hosts: files nisplus dns

hosts6: files nisplus dns

NIS

NIS+

FILES

DNS

hosts.byname

hosts6.byname

hosts.org_dir

hosts6.org_dir

/etc/hosts

/etc/hosts6

"A"

"AAAA"

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Future Plans

◆ **NIS, NIS+ and DNS service over IPv6 transport**

      Working with ISC on DNS running over IPv6

◆ **IPv6 host address translations through LDAP**