

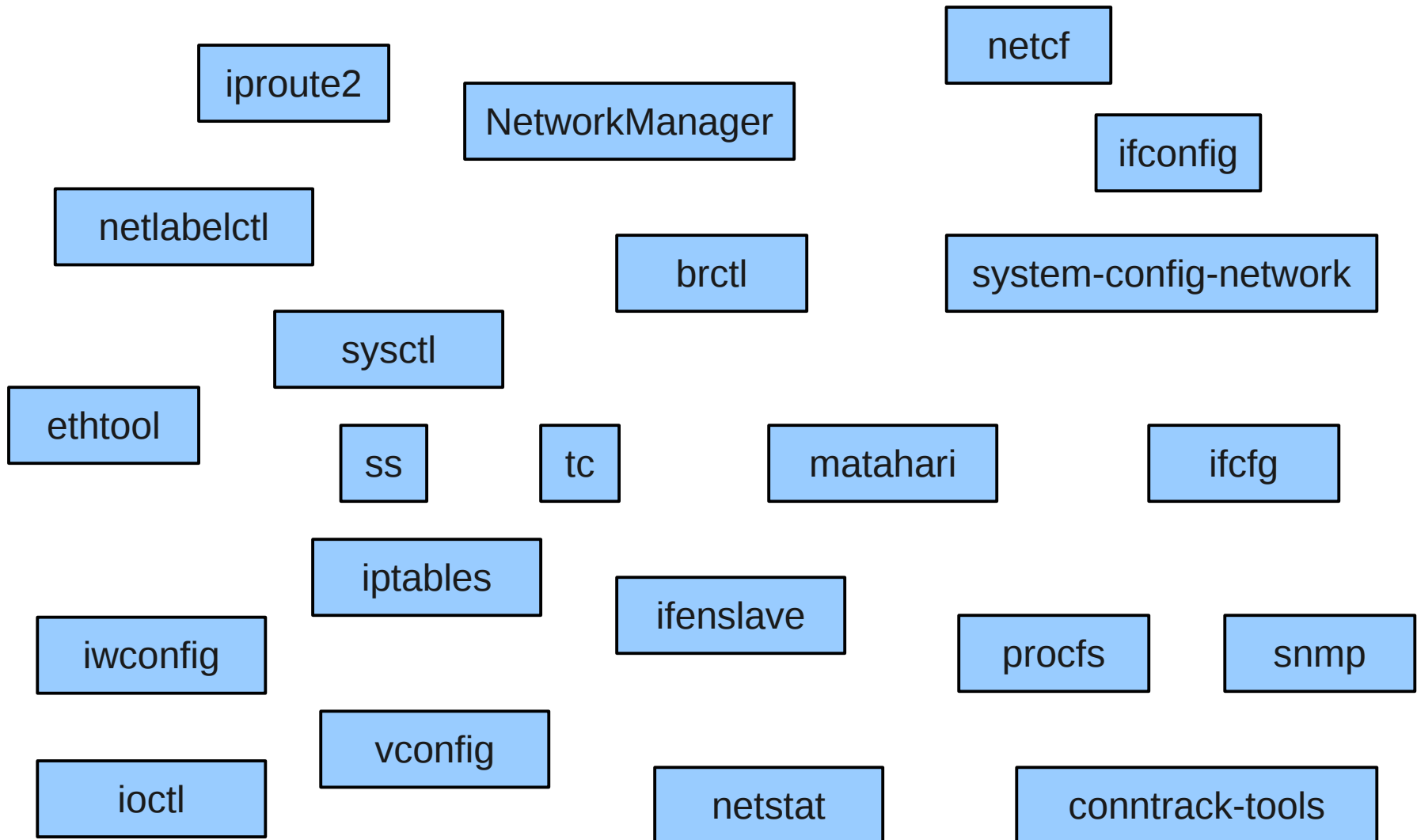
Network Configuration Usability and World IPv6 Day

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Agenda

- Status Quo
- What's up Next?
- Discussion
- World IPv6 Day

Status Quo



What it should look like

**Level 3: OS Independent
Remote API**

Matahari among others

**Level 2: Shell/GUI
Slightly Abstracted**

NetworkManager / netcf

**Level 1: Shell /
Advanced User**

ncfg

Userspace

libnl

libsfs

Kernel

Netlink

sysfs

Status libnl

- Libnl 3.0 released
 - Core API has not changed much since 2.0
 - Python interface (demo)
 - AsciiDoc based Documentation (demo)
 - Unified TC interface

Status ncfg

- ncfg (demo)
 - Experimental
 - Based on libnl-python
 - Focus on usability

Whats up Next?

- Netlink Dump Filters
 - Limit what is included in a dump
 - Retrieve link statistics only

What's up Next?

- Automatic Dump Retry
 - Brought up by Johannes Berg
 - Signal to userspace if data changed underneath while dumping
 - libnl caches: start over

Discussion

- Netlink based ethtool interface intergrated
 - IFLA_ETHTOOL
 - **RFC:** How to bundle multiple requests?
 - **Problem:** Driver API is ioctl based, can fail at any moment
 - => Commit/Rollback or extend all drivers?

World IPv6 Day

- Success but nobody cared too much except for Google
- No spectacular bugs
- Quite a few sites stay enabled after the day

World IPv6 Day

Linux Issues

- No way to allow DHCP client packets in ip6tables without opening holes yet
- Needs conntrack module like netbios

World IPv6 Day

Linux Issues

- ping6 always uses the first address returned by getaddrinfo()
- ... even if it is an IPv4 address.

World IPv6 Day

Linux Issues

- Some distros ship useless `gai.conf`

Merci