

# Debian Mirroring & Caching

Theppitak Karoonboonyanan  
thep@debian.org

Debian Developer

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**① Benefits**

**② APT Caching**

**③ Debian Mirroring**

## Section 1

# Benefits

- Stable version
  - Security updates
  - Volatile data (e.g. virus patterns)
  - Backports
- Testing/Unstable version
  - Security updates
  - Latest software version
  - Contributions via bug reports
  - Timely bug fixes

- Custom distribution building
  - Collection of packages
  - Debian-installer components
  - All are pulled from Debian mirror
- Quick setup
  - Netinst CD + Packages from the net
  - Total download size < whole CD image
  - Additional installation on demand
- CD image building using jigdo
  - Jigdo template + Packages from the net
  - Incremental updates with old downloads reused
  - No need to load ISO from only limited number of available mirrors

- APT caching
  - Download on demand
  - Requires less storage
  - First downloader has to wait
  - Good for multiple machines in LAN with slow internet uplink
- Debian mirroring
  - Sync packages in the background
  - Ready for even first downloader
  - Requires storage, depending on supported architectures
  - Good for the mass

## Section 2

# APT Caching

- approx
- apt-cacher
- apt-cacher-ng



## Section 3

# Debian Mirroring

- Requirements
  - Disk space
  - Two-phase syncing (packages, index)
  - Trace file for tracking the syncing chain
- Update cycle
  - 3:00, 9:00, 15:00 and 21:00 UTC
- Partial mirroring
  - Some architectures can be excluded

- Instead of cron, mirroring can be triggered when master is ready
- Needs coordination with mirror maintainer
- Technically:
  - Slave site accepts master site's restricted SSH public key in which only given command for syncing is allowed
  - Master site adds the slave site to its trigger list

- Registered sites will be listed in Debian mirror list and in installation CD
- Official mirrors
  - Usually with `ftp.xx.debian.org` DNS
  - Must be up 24 hr a day
  - Good bandwidth
  - No access ban from outside
  - Fully mirrored
  - Provides HTTP, FTP, rsync services
  - Updated with `ftpsync` script, not by other tools
  - Push mirrored

- Getting:
  - `http://ftp-master.debian.org/ftpsync.tar.gz`
  - `git clone`  
`https://ftp-master.debian.org/git/archvsync.git`