How to reach World Domination?

• 4 IT units in the headquarter
  – more than 11000 PCs worldwide
  – 226 missions (embassies, general consulates)
  – IT service centers in New York, Singapour
  – little IT stuff abroad

• IT strategy unit (CIO like):
  – managing IT budgets
  – responsible for IT security
  – 'strategic decisions'
  – got job throught former DPL: Martin Michlmayr
history

• until 2003:
  – Redhat servers in the missions
  – german branded ,'SINA‘ IPSEC based connectivity worldwide
  – MS Windows XP and Office at the clients
  – MS Windows NT at servers and clients in the headquarter including MS Outlook and Exchange

• 2004 (introducing Debian):
  – Debian for Internet terminal servers
  – Debian for more and more ,Intranet‘ web applications
history and present

• 2005 (refreshing the headquarter):
  – Debian on almost all servers
  – Debian on all clients in a multiboot configuration

• 2006 (speeding up):
  – Debian on all new servers and (multiboot) clients in the missions
  – Debian on all notebooks with SINA based VPN

• 2007 (starting the final phase):
  – migrating some missions to Debian only: Oslo and Kairo
  – VirtualBox for legacy software
advantages of Debian

- large package pool and large developer community
- not business driven: independence
- real open source distribution; you are allowed to recompile the kernel
- users can easily contribute: BTS, collaborative development, translations, new maintainer
- end user focus; compared to Gentoo or free BSDs
- high stability thanks to the Bug Tracking Systems and the strict release process
development / installation infrastructure

- goal: package everything in deb format for easy distribution and installation
- own mirror, components archive, upload queues, build server, and policies
- bugtracker bugzilla, SVN, git, mailman based mailing lists, mediawiki, and OTRS ticket system
- it is still too hard to setup and maintain our own infrastructure
  - no LDAP integration
  - missing a lot of helper tools e.g. for archive maintainance
installer

• d-i is good but did/does not fit our needs
• automatic setup of load-balancing heartbeat clusters
• automatic setup of DRBD and LVM on top of DRBD
• simple creation of installation media: CDROM, DVDROM, network based (PXE), ...
• support of virtual machines (Xen, VirtualBox)
• image based installations (preinstalled OS by hardware vendor, support for other, non-Debian OS)
• separation of installation from setup
policy-like problems

- running the same daemon twice (or more):
  - needed for better heartbeat support
  - avoid hardcoded paths to files or directories like /etc
  - support automatic installation of multiple instances of every daemon via preseeding or something similar
- dynamic UIDs/GIDs on shared storage:
  - some kind of preseeding of UID/GID mappings needed
- no definition of a central configuration database
- no extensible configuration mechanism
configuration file handling

• more flexible configuration files than dpkg's conffiles

• preset --force-confold/--force-confnew for individual files (ucf uses $UCF_FORCE_CONFFNEW, $UCF_FORCE_CONFFOLD and debconf)

• diversion tool like dpkg-divert

• conffile handling of dpkg not fully documented (6.8.5)

• moving conffiles from one package to another one with or without changing the filenames

• run-parts for configuration files + migration/diversion mechanism (e.g. run-parts --list /etc/conffile.d/)
configuration file handling

- numbered backups
- central database of configuration data
  - debconf's LDAP backend is experimental and very limited
  - plain files are the only option currently
- standard and extensible template mechanism for configuration files
- user frontend for central database (webapp)
Thanks for your interest!

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