



Merlin, Kennards Hires' FOSS Sorcery

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Quick overview

- Kennards Hire
- Project Merlin
- Linux on the corporate desktop
 - Xfce, Gnome, OpenOffice.org, Jabber
- Linux on the backend
 - LDAP authentication, Samba, BIND/DHCP
- Deployment, Maintenance, Management
 - Kickstart, Yum, Rsync

Focus & Outline

- **Implementation**
 - foundations, customisation
- **Deployment**
 - prepping, going live
- **Maintenance**
 - systems management, modification cycle, updates

Who am I?

- Lindsay Holmwood
 - Project Merlin
 - architect, engineer, implementor
 - HSC student
 - SLUG committee member

Kennards Hire

- Internationally recognised equipment hire company
- Over 50 years of business
- 84 branches Australia-wide, expanding
- 500+ employees

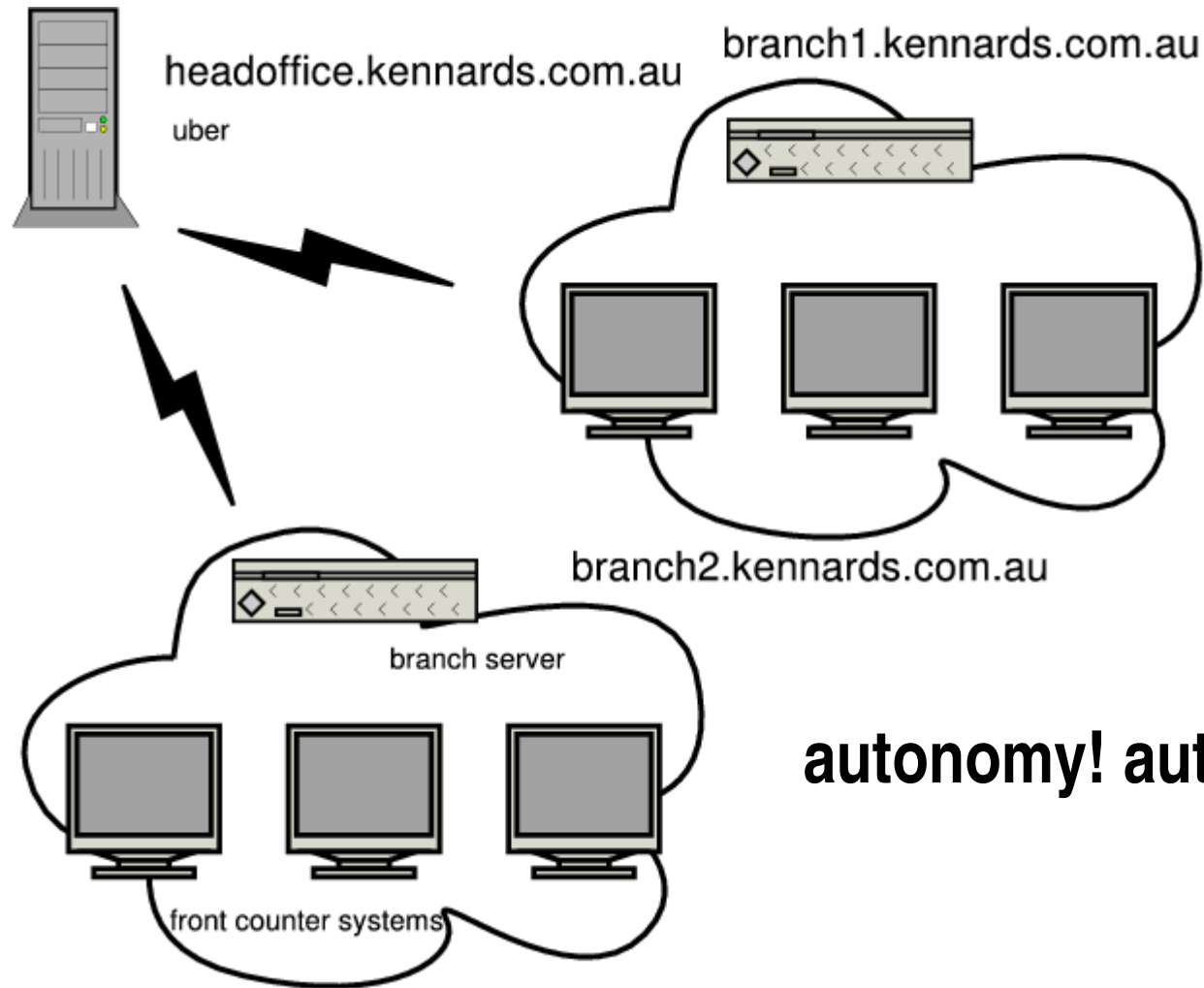
Project Merlin

- Front Counter SOE
 - new POS system (proprietary)
 - customised operating system & software environment
 - standardised hardware
- Infrastructure entirely FOSS based
 - frontend
 - employee desktop
 - backend
 - authentication, file sharing, IM, systems management

Why Linux?

- Kennards IT vision
 - cost reductions, standards, stability, quality
- Current POS infrastructure
 - heterogenous, aging, unreliable, unfeatureful, proprietry
- FOSS == choice
 - interchangeable, extendable, customisable, managable

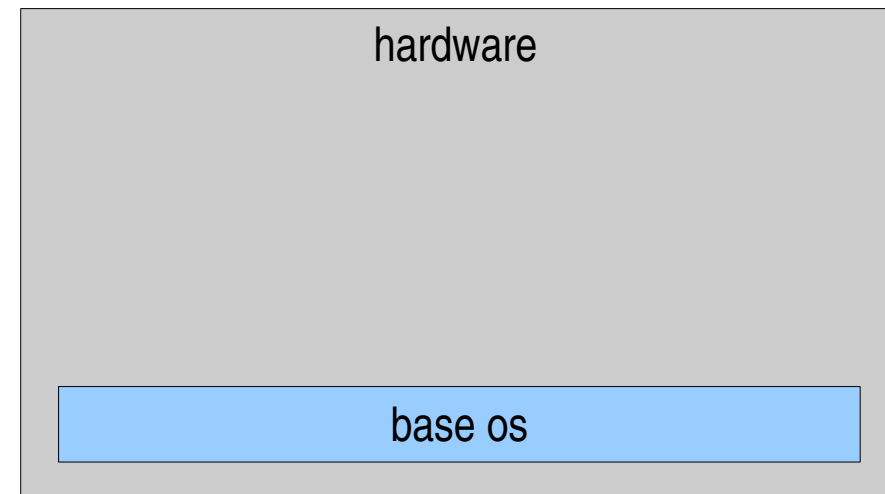
FOSS infrastructure



autonomy! autonomy! autonomy!

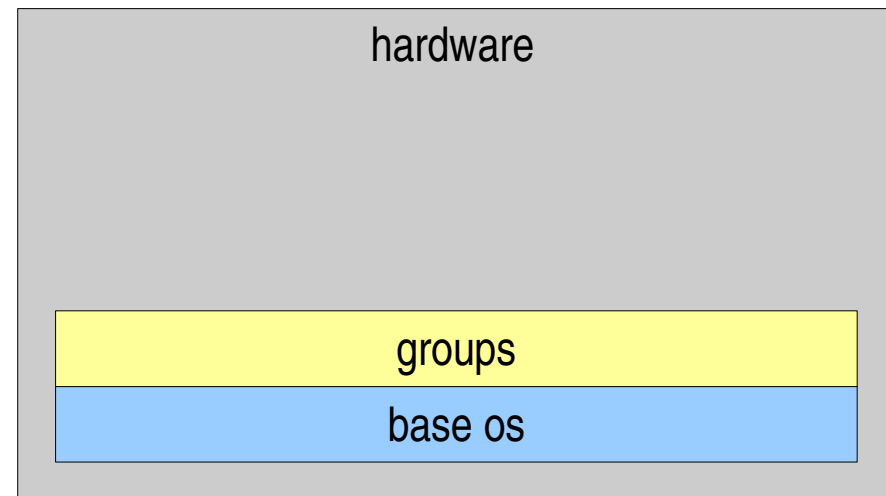
Foundations

- IBM Hardware
 - x365, x306, SurePOS 300, ThinkCentres
- Fedora Core 3, base install
 - desktops, branch servers
- RHEL4, standard install
 - uber server



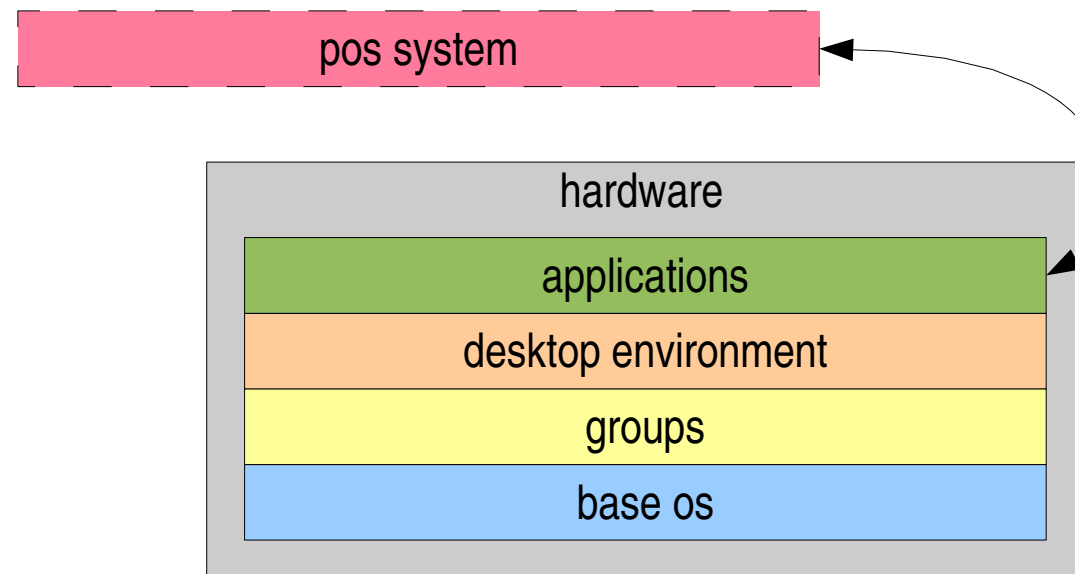
Customisations

- Package groups
 - define machine role
 - Kennards SFF, Kennards POS, Kennards Server



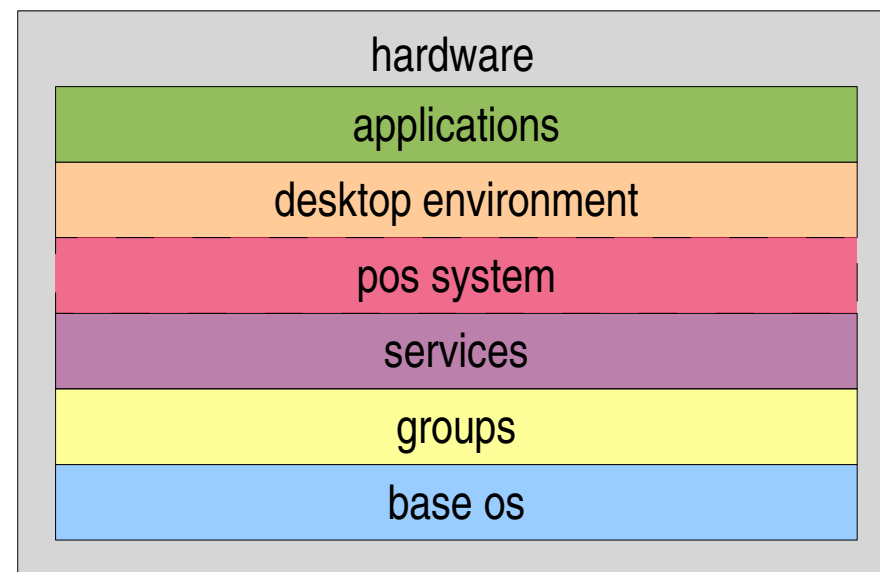
Desktop & Applications

- Xfce, Gnome
 - lockdown (employees), standardised
- Mozilla Firefox
 - standard install
- OpenOffice.org
 - wrapper scripts
- Gossip
 - employee IM



Branch backend

- Services
 - OpenLDAP
 - authentication, hub service
 - Samba
 - shared home directories
 - Apache
 - branch software repository
 - BIND/DHCP/tftpd
 - netbooting
 - CUPS

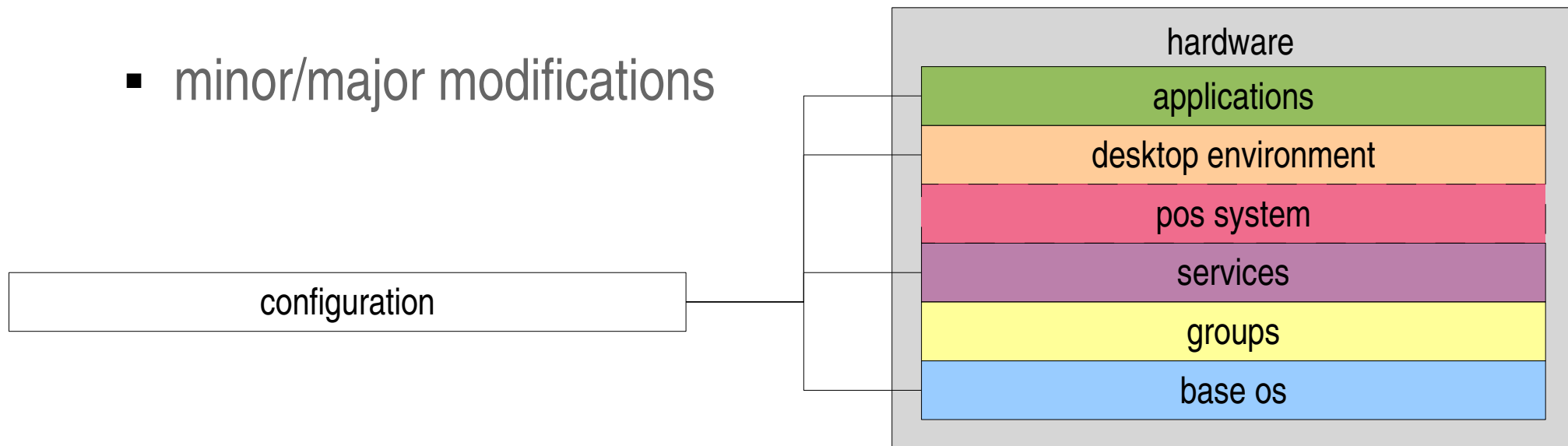


Backend details

- authentication
 - OpenLDAP
 - directory administration, replication, initial synchronisation
 - pam_ldap, lookups, lookup order
- file sharing
 - Samba
 - LDAP hook in
 - pam_mount

Configuration Packages

- High level configuration
 - startup, authentication, package repositories, services, printing
 - logon, desktop environment, applications
 - kennards-[pos/sff/server/support/netboot/yum]-config
- Modifies standard minimal FC3 install
 - minor/major modifications



Management

- Packages
 - hard local definition vs remote managed state
- Yum
 - repositories, packages, groups
 - tiered structure, autonomy

Maintenance

- Access
 - openssh, vnc
- Updates & Modifications
 - modification cycle
 - diagnose, patch, package, test
 - package repositories
 - manual labour
 - synchronisation, updating

Deployment

- Manual or automated
 - netbooting
 - kickstart
 - standard install
 - post install
- Prep and ship, gradually & enmass
- Branch autonomy

Merlin timeline

- Development
- Two stage deployment
 - initial Designex rollout
 - interface with Windows 2000 Terminal Servers
 - phased
 - Merlin application goes live
 - new POS, entirely FOSS

Issues

- **Systems management**
 - heat, updates
- **Users**
 - acceptance, curiosity killed the cat
- **Windows integration**
 - Terminal Services

Questions?

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<http://asymmetrics.net/>