

School of Informatics
University of Edinburgh

Inventory System Rollout

Ken Dawson

- The importance of the inventory
- Typical life cycle'of inventory records
- LCFG sysinfo data
- Invtools
- Invquery
- Invedit
- Documentation

The Importance of the Inventory

- Purchase details: when, cost, description, who paid, supplier
- Detailed record of equipment owned including changeable elements such as current location
- Disposal details: when, how, residual value
- Basis for insurance record
- Planning (e.g. for replacing old equipment)
- Legal requirements

'Life Cycle' of Inventory Records –DICE 1

- Order placed
 - details of order and items ordered entered using standard form
 - details automatically transferred to database
- Order arrives
 - record arrival date and serial numbers of equipment on standard order form
 - existing item records automatically updated

example order:

<http://ordershost.inf.ed.ac.uk/xml/ikb0153.xml>

'Life Cycle' of Inventory Records –DICE 2

- Desktop installation
 - profile created (hostname and MAC address specified)
- twice daily *client-report* runs on each host
 - details of hostname, serial number and MAC address (plus make and model) reported centrally to ordershost
- twice daily *clientreporttoinfdb* runs on infdb
 - Hostname and MAC address added for system with matching serial number
- twice daily *switchtoinfdb* runs on infdb
 - MAC/switch-port/location data from switches used to automatically maintain location of networked computers

'Life Cycle' of Inventory Records

Networked 1

- Order placed
 - details of order and items ordered entered using standard form
 - details automatically transferred to database
- Order arrives
 - record arrival date and serial numbers of equipment on standard order form
 - existing item records automatically updated
- example order:
<http://ordershost.inf.ed.ac.uk/xml/ikb0413.xml>

'Life Cycle' of Inventory Records Networked 2

- Manual update
 - hostname and MAC address specified via command line tool (*invedit*)
- twice daily *switchtoinfdb* runs on *infdb*
 - MAC/switch-port/location data from switches used to automatically maintain location of networked computers

'Life Cycle' of Inventory Records

Non-networked 1

- Order placed
 - details of order and items ordered entered using standard form
 - details automatically transferred to database
- Order arrives
 - record arrival date and serial numbers of equipment on standard order form
 - existing item records automatically updated

'Life Cycle' of Inventory Records

Non-networked 2

- Manual update
 - location specified via *invedit* command

Note that at present this also applies to switches and servers in the server rooms because of the way switch ports are tagged

LCFG Sysinfo Data

Inventory data is now held in the LCFG profiles via sysinfo resources (e.g. sysinfo.model, sysinfo.sno, sysinfo.location, sysinfo.owner, sysinfo.allocated)

Much of this is mastered in the School database and exported in per-machine header files.

In the transitional phase that we are still in this is still being overridden in the profile but this will soon be stopped.

Invtools

- dice-invtools rpm contains the invquery and invedit commands
- Available via the infdb-client.h header
- Similar setup as for any client machine of the School Informatics database –needs entry in live/infdb-dbiproxy.h header
- DBIPROXY_ADD(<host>, INVQUERY <uun>)
- Need encryption key
in .../DICE/AccountManager/Infdb/Key.pm

Invquery 1

- Primary purpose is to report inventory data for hosts
- Can also list known sites and rooms –the latter can be limited to a specific site
- Can query for a specific host or all current hosts
- The host data can be reported in a default format or a user specified format

Invquery 2

- `invquery --manual`
- `invquery --building`
- `invquery --room --site <site>`
- `invquery --host <host>`
- `invquery --host <host> --htemplate <template>`
- `invquery --currenthosts --htemplate <template>`

Invedit 1

- Used to update inventory data on a specific item of inventory
- The item can be specified by serial number or current hostname
- Used to update allocation to a person and manager (and hostname change) for all hosts
- Used to specify MAC address, operating system and initial hostname for non-DICE hosts

Invedit 2

- Currently used to specify location of switches, servers and non-networked inventory items
- Used to record the disposal of any inventory item

Invedit 3

- `invedit --manual`
- `invedit --host <host> --allocate <uun>`
- `invedit --host <host> --manager <manager>`
- `invedit --serial <sno> --name <hostname>`
- `invedit --serial <sno> --mac <MAC>`
- `invedit --host <host> --os <operatingsystem>`
- `invedit --serial <sno> --disposal --ddate <date>`

Documentation

Documentation for the use of the invquery and invedit commands together with other background information is available from

<http://www.inf.ed.ac.uk/systems/support/inventory.html>