APC Smart-UPS & Network Shutdown overview

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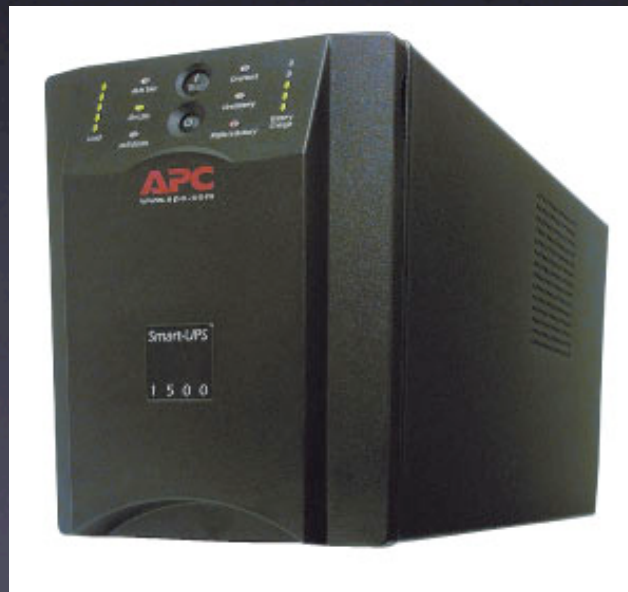
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Goal

- Better power backup and graceful unattended shutdown capability for Mac servers during Library remodel

- Not depend on Library network being up during an outage

Hardware

- APC Smart-UPS 1500
  - approx. 24 mins at 50% load (480 Watts)
  - approx. 7 mins at 100% load (980 Watts)
  - $430

Hardware

- 9617 Network Management Card
  - configure IP via network (DHCP), Windows Wizard, serial command console
  - access via web (SSL), telnet, SSH
  - $220

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Features

- Management card's Web GUI
  - Configure UPS settings, failure criteria and define PowerChute clients
  - Horribly slow with SSL enabled

Software

- APC PowerChute Network Shutdown 2.0

  - UPS signals clients via TCP/IP to gracefully shutdown during an outage

  - Installed in /usr/local/PowerChute, runs as a faceless Java process

  - Tries smooth shutdown first, then does hard shutdown if necessary

  - free

  - Hasn't been updated since 2002...

Software

- APC PowerChute Personal Edition 1.3.2

  - UPS signals clients via USB to gracefully shutdown during an outage

  - Tries smooth shutdown first, then does hard shutdown if necessary

  - System PreferencePane

  - Can be used in conjunction w/Network Shutdown on other clients
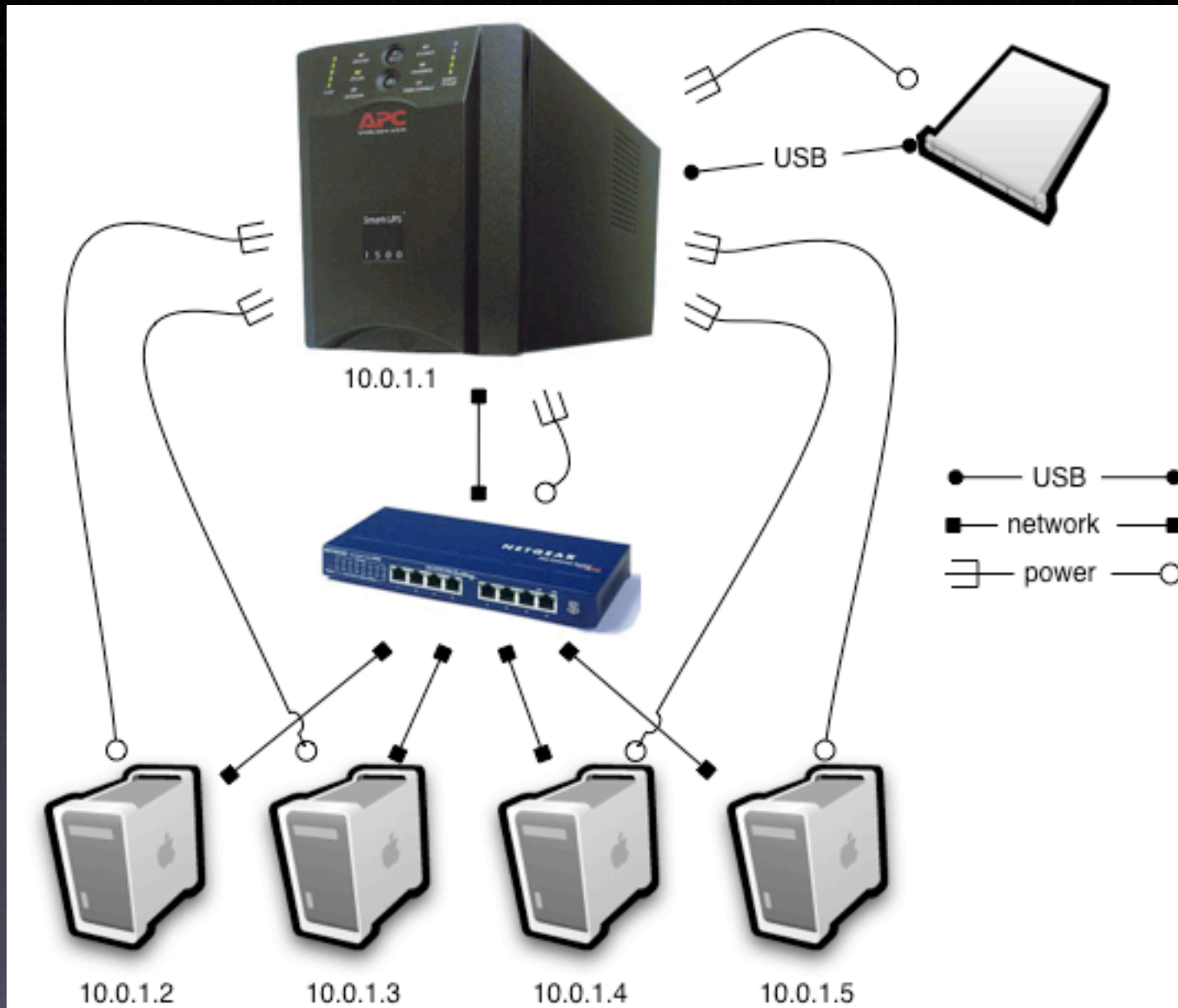
  - Free

  - Updated occasionally

Software

- APC Tracker 4.2.4 - Equinux software

  - APC Tracker runs on clients, monitors UPS status and signals graceful shutdowns during outages.

  - Clients shut themselves down, not the UPS

  - Tries smooth shutdown first, then does hard shutdown if necessary

  - $129/machine, volume discounts

  - Doesn't seem to do much that PNS doesn't do for free

  - Updated frequently

Our Setup

- Additional PCI ethernet card for each client

  - provides additional security

  - but breaks email notifications

- Netgear 8-port switch

  - Also powered by UPS

- Isolated network

- One Xserve connected to UPS via USB

USB

10.0.1.1

USB
network
power

10.0.1.2   10.0.1.3   10.0.1.4   10.0.1.5

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Issues

- Can UPS tell clients to turn back on after outage?

- Scheduled startups?

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Demo...