

## **HPUX-NT Integration using Advanced Server/9000**

- Overview of AS/9000
- HPUX-NT integration
- Case studies
- Summary

### **Overview of AS/9000**

- HP's implementation of Microsoft (MS) NT Server networking on HPUX
- File, Print, Replication, Auditing, Domain, and Browsing services fully compatible with MS clients and servers
- Access to HPUX file systems - HFS, CDFS, NFS, JFS
- Access to local or remote printers - rlp or OpenSpool
- Full participation in NT Domains as a PDC or BDC
- NT ACLs and trust relationships for MS style security
- Mapping of NT users to HPUX accounts for UNIX security

## **HPUX-NT Integration**

- Same platform serves NT and HPUX users
- NT and HPUX users sharing the same resources
- Access to greater HPUX functionality for NT users

## **Engineering requires cross-platform access**

- Manufacturer of electronic products
- CAD and simulation applications runs on high-end HPUX workstations
- Documentation and office applications run on PC platforms
- Large NFS servers provide centralized storage and backup
- Users on PCs must push/pull file sets from CAD servers
- Constant copying and synchronization error prone and time consuming
- CAD users sometimes need access to PC apps
- Growing use of NT require new storage and backup solutions

## **Engineering Group (cont.)**

- Costs of parallel back-end systems and synchronization too high
- Single filesystem image needed - c:/home/drawing and /home/drawing
- AS/9000 on CAD servers provided solution
- PC-NFS considered, but per-client costs were too high
- NT adopted as virtual “workstation” for all users
- Back-end HPUNIX workstation for each CAD user; access via X-server on NT
- Enterprise File System (EFS) planned for multi-site development

## **Data Center integrates NT**

- Large corporate IT center provides file storage and application management for thousands of PC and HPUNIX clients world-wide
- Centralized file and app storage (“thin client” model)
- Three-tier model: storage server, file server, client
- PC clients served by LMX servers
- Architecture permits flexible allocation of machine and storage resources including backup and DRP
- Printer access via HPUNIX rlp
- Client mix shifting to the PC; Win16 to Win95 and NT

## **Data Center (cont.)**

- Adoption of NT master domain model for centralized user/group management
- Challenge: create a new NT infrastructure while leveraging current investments in hardware, software, and processes
- AS/9000 installed at the file server tier
- Logon to NT accounts via trusts , but retain HPUX storage architecture
- NT names mapped to HPUX users as needed
- Dual client access for shared resources maintained
- Ability script NT admin commands invaluable when managing many servers
- DRP and resource allocation model being evaluated for NT

## **Software Project Team meets NT**

- HPUX application software development lab
- Personal workstations access dedicated compile and file servers
- NIS/NFS for centralized user database, but distributed file access
- Extended teams across multiple sites and hundreds of servers
- NT added as a development and test platform; single NT box per engineer
- NT users need common file/printer services and access to existing source files
- AS/9000 fulfills both needs

## **Software Project Team (cont.)**

- Single NT domain with users that mirror HPUX accounts
- NT users “mapped” to HPUX accounts per server
- Existing files and printers shared to NT clients as needed
- NT clients use DNS to locate any AS/9000 file server
- NT machines “backed up” to AS/9000 servers
- HPUX disk quotas used to limit NT disk usage
- AS/9000 command line interface familiar to HPUX users
- Spare HPUX machines with AS/9000 provide NT boxes easily reassigned to test domains

## **Common roles for AS/9000**

- Manage access to shared resources from both NT and HPUX
- Leverage existing HPUX investments for NT
- Extend NT functionality with HPUX technologies