

Security Administration

- ▶ Scan for "Trojan Horse" violations
- ▶ Scan for "Backdoor" violations
- ▶ Intrusion Detection - Run checksums on all system directories to determine if any changes have been made
- ▶ Scan for unsecured directories and files
- ▶ Scan for user accounts with no password
- ▶ Look for any new Operating System errors that may have been logged
- ▶ Monitor for suspicious failed "login" attempts
- ▶ Monitor for suspicious failed "su" attempts
- ▶ Log all ".rhosts" files
- ▶ Scan root's PATH variable for security problems
- ▶ Monitor system owned world writeable files
- ▶ Monitor user owned writeable files
- ▶ Identify rogue (misplaced) devices
- ▶ Log deletion of system owned files
- ▶ Log deletion of user owned files
- ▶ Monitor changes to access (owner, group or permissions) on secured files
- ▶ Scan for potential problems in /etc/passwd file, such as:
 - no matching entry in NIS
 - group ID not in /etc/group
 - invalid home directory
 - duplicate logins
 - duplicate UIDs
 - root entry missing
 - root entry is not the first entry
 - unexpected value for shell
 - shell is Set UID
 - shell is Set GID
- ▶ Kill idle users
- ▶ Any new orphan files?
- ▶ Monitor for the removal of the sticky bit on directories
- ▶ Audit security and suggest improvement changes
- ▶ Transfer all data between AdminUXs as encrypted and certified
- ▶ Monitor TCP/IP ports for change in status
- ▶ Can root log in on non-console devices?

- ▶ Does PAM have any breathtaking configurations?
- ▶ Create a daily security diary

Network Administration

- ▶ Poll devices on network and determine if any network hosts are down
- ▶ Poll the network to determine if any network interfaces are down
- ▶ Determine if collision rates are abnormal on all network interfaces
- ▶ Determine if packet error rates are abnormal on all network interfaces
- ▶ Poll URL to determine if the web page exists
- ▶ Poll URL to determine if the web page has changed
- ▶ Alert if an inactive TCP/IP port becomes active
- ▶ Alert if an active TCP/IP port becomes inactive
- ▶ Audit for ports that should not be active
- ▶ Distribute matrix changes to a workgroup of AdminUXs

Performance Administration

- ▶ Log benchmarks
- ▶ Run sar reports for yesterday's data
- ▶ Analyze buffer performance
- ▶ Analyze cpu performance
- ▶ Analyze disk performance
- ▶ Analyze memory performance
- ▶ Look for any new Operating System errors that may have been logged
- ▶ Was there an unauthorized date/time change?
- ▶ Was the last boot expected?
- ▶ Determine if the system needs to be shutdown.
- ▶ Determine if collision rates are abnormal on all network interfaces.
- ▶ Determine if packet error rates are abnormal on all network interfaces

Administration Tasks

Process Administration

- ▶ Monitor for failed daemons
- ▶ Restart any stopped daemon, if permitted
- ▶ Monitor for orphan processes
- ▶ Kill orphan processes, if permitted
- ▶ Monitor for runaway processes

Filesystem Administration

- ▶ Monitor if all filesystems are mounted
- ▶ Monitor if there is adequate filesystems space
- ▶ Monitor if there is adequate swap space
- ▶ Model free blocks and forecast if the resource will be exhausted in 90/60/30 days

File Administration

- ▶ Restore any missing critical file, device or symbolic link
- ▶ Archive/trim defined system logs
- ▶ Remove defined garbage files
- ▶ Does /dev use more space than expected?
- ▶ Any new large mailboxes?
- ▶ Any new orphan files?
- ▶ Reassign orphan files' ownership to a valid user
- ▶ Error check /etc/gettydefs
- ▶ Error check /etc/inittab
- ▶ Error check /etc/passwd
- ▶ Locate and log large files
- ▶ Monitor the growth of large files
- ▶ Locate and log huge directories

Backup Administration

- ▶ Did the Autobackup Administrator complete?
- ▶ Has the Autobackup Status been checked recently?
- ▶ Is tonight's tape(s) inserted?
- ▶ Did the Autobackup run the normal length of time?
- ▶ Is the Autobackup Administrator enabled?
- ▶ If applicable, create the volume group configuration backup files

- ▶ Synchronize AdminUX's logs onto other hosts (Logs are available if this machine goes down)
- ▶ Synchronize application logs/files onto other hosts for backup

User Administration

- ▶ Enable/Disable a login
- ▶ Kill idle users
- ▶ Monitor user application logs for a defined event
- ▶ Look for user posted events to alarm
- ▶ Randomly select a new message-of-the-day
- ▶ Change file names in users' home directories if file name contains meta characters
- ▶ Enforce certain time of day login rule
- ▶ Assign a menu command to the login
- ▶ Assign a time zone to the login if needed
- ▶ If applicable, display a login greeting
- ▶ If applicable, display any birthdays for today
- ▶ If applicable, celebrate the login's birthday
- ▶ Prevent a user from logging in from more than one device
- ▶ Allow a user to run a super user command

Printer Administration

- ▶ Monitor if the print scheduler is running
- ▶ Monitor if all printers are enabled
- ▶ Monitor if all print destinations are accepting requests
- ▶ Monitor if there is a default print destination
- ▶ Restart lp spooling system's sequence number each year

Keep A Record

- ▶ Create a daily security diary
- ▶ If applicable, create the volume group configuration backup files
- ▶ Create a table of all files on the local filesystems (FILES.tab)
- ▶ Create a table of everything known about the print spooling system (LPPERMS.tab)
- ▶ Maintain 24 hour status logs to diagnose system problems (STATUS00.log - STATUS23.log)
- ▶ Log kernel system log errors (ERRPT.log)
- ▶ Log deleted system owned files (MISSING.log)
- ▶ Log response time benchmark (RESPONSE.log)
- ▶ Log active users (USERS.log) and terminals (TERMS.log)
- ▶ Log removed garbage files (CLEANUP.log).
- ▶ Log current disk space (DISK.log).
- ▶ Log current directory space (DU.log).
- ▶ Log current space for users' home directory (DUUSR.log).
- ▶ Log orphan files (FORPHANS.log)
- ▶ Log large files (LRGFILES.log)
- ▶ Log huge directories (HUGEDIR.log)
- ▶ Log security concerns (SECURITY.log)
- ▶ Log failed login attempts (FAILEDLOGIN.log)
- ▶ Log failed "su" attempts (FAILEDSU.log)
- ▶ Log all "su" attempts (SU.log)
- ▶ Log all system boots and shutdowns (BOOT.log,SHUTDOWN.log)
- ▶ Log a history of all repairs made by AdminUX (REPAIRS.log)
- ▶ Log all ".rhosts" files (RHOSTS.log)
- ▶ Log all SGID files (SGID.log)
- ▶ Log all sticky bit files (STICKYBIT.log)
- ▶ Log all SUID files (SUID.log)
- ▶ Log system uptime (UPTIME.log)
- ▶ Log all files that are writeable by users (USERSWRITE.log)
- ▶ Log all world writeable files (WORLDWRITE.log)

- ▶ Log system configuration settings (SYSTEM.log)
- ▶ Log resource data (DB.log)

Alarm Administration

- ▶ Send notifications if an alarm is set
- ▶ Send alarm to Tivoli
- ▶ Send alarm to OpenView
- ▶ Send alarms to other machines

Boot Administration

- ▶ Make certain that the console is linked correctly
- ▶ If applicable, do an fsck on all filesystems
- ▶ Re-create /tmp and /usr/tmp if missing
- ▶ Remove lock and obsolete control files
- ▶ Ask for a new date/time if unreasonable
- ▶ Restore any missing files, devices and symbolic links
- ▶ Re-create any missing lost+found directories
- ▶ Re-create utmp file if missing