



## halFILE 2.1

### Network Protection & Disaster Recovery

## Backup

- Method of scheduling flat-file backup of halFILE databases
- Auto archive now can include flat-file backup
- Format of bcp line for memo fields
- What images need to be backed up?
- Use Off site storage for CDs and tape



## Multi-tiered Backup Strategy

- Fault tolerance – expense vs. downtime
- RAID levels
- Protected if one backup strategy fails?
- Verification of backup
- SQL Agents – benefits and drawbacks
- Tape rotation
- Incremental vs. full
- Backup expense



## Products

- Computer Associates ArcServe
- Veritas Backup Exec
- Microsoft Backup (free with server)
- Choose your software, learn it and get very comfortable with it



## hal Systems Review

- If you are on maintenance we will check that your flat file backups are running
- If you purchased tape software/hardware from us we will review backup strategy
- As a service, we will review halFILE backup strategies implemented by 3<sup>rd</sup> parties



## Restore

- Test your backup procedures often, we recommend every 3 weeks
- Get very comfortable with your backup software – make it routine
- If possible have a plan for a backup server to put in place during the restore of the primary server



## Virus protection

- Real time monitoring issues with halFILE directories
- Schedule regular pattern file updates
- Email viruses most common source
- Firewall in place prior to connecting machines to the internet



## Virus protection

- Companies rarely send out patches or updates via email
- Attachments – double check before opening any attachment
- Real-time monitoring – it can definitely affect speed



## Internet Security / Firewall

- Microsoft security patches
- Ports for remote access (VPN, PCAny, Terminal Services)
- Security designs (all behind firewall or Private/Public/Internet)



## Disasters Can Happen

- Disgruntled employees
- Backup Failures
- Computer Hackers
- Email Viruses
- Fire
- Natural Disasters
- Terrorism



## Disaster Prevention

- Secure the network, assume the worst situation
- Absolute control to the administrator ONLY
- Have the plan in place before the disaster!
- Don't learn the hard way!



The End

