CHARON-VAX application note

AN-33 Required Windows Standard Services

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Software Resources International (SRI) recommends the use of the host operating system that is specified in the Software Product Description of the CHARON product (see www.softresint.com). SRI also recommends that users do not change the default settings of the Windows operating system, with the exception of the functions listed in the "**In all cases**" section below. For these recommendations to be effective it is assumed that CHARON-VAX is the only user application running on the host system. Simultaneous use of other applications on the same Windows host system, with the exception of a terminal emulator, is outside the design specification of CHARON-VAX.

Additional Windows services may be disabled beyond those listed in the "**In all cases**" section below. Note that disabling these additional services will in general not lead to a significant performance improvement but can meet a customer's requirement for stability and risk reduction by disabling unused functionality.

In addition SRI has carried out tests to list services that should <u>not</u> be disabled, as they are important or critical to the operation of Windows or CHARON-VAX.

The conclusions were drawn from the following test environment.

The system software versions (fresh installations) used in the testing:

- Windows XP Version 2002, Service Pack 1

- Windows 2000, 5.00.2195, Service Pack 4

- Windows 2003 Server Standard Edition, Service Pack 1

The Windows installations accepted the recommended configuration options.

CHARON-VAX/XL Plus Version 3.1 was tested for: installation/de-installation, network driver installation/de-installation, general disk management, working with floppy drive, with CDROM, networking using DECnet and TCP/IP.

1. Disabling Services

In all cases

All CHARON-VAX users must review the following tasks and services on CHARON-VAX host systems to ensure their use is in line with the users CHARON-VAX usage requirements. SRI recommends disabling these tasks and services:

- Automatic Updates – may cause network and processor traffic that could disrupt CHARON-VAX

- Task Scheduler – may unexpectedly launch tasks with an unpredictable impact on CHARON-VAX.

- Screensaver and Power saving features – could reduce processing resources required by CHARON-VAX.

- Any virus protection – can cause disruption by accessing CHARON-VAX files. See Application Note 29 for Recommendations Regarding Security of CHARON-VAX Host Platforms.

- Automatic background backup - may cause network and processor traffic that could disrupt CHARON-VAX

- Windows Messenger - may cause network and processor traffic that could disrupt CHARON-VAX

- Indexing Service – may cause burst mode activity that may destabilize a CHARON-VAX CPU. This is especially important in SMP systems where the CPU performance must be consistent across CPU's. Examples of CHARON-VAX SMP systems are CHARON-VAX/6620 for Windows and CHAROn-VAX/6630 for Windows.

Windows XP Services that may be disabled:

- Application Layer Gateway Service

- Application Management

- Automatic Updates

- Background Intelligent Transfer Service

- ClipBook

- COM+ Event System

- COM+ System Application

- Computer Browser

- Cryptographic Services

- DHCP Client

- Distributed Link Tracking Client

- DNS Client

- Fast User Switching Compatibility

- Help and Support

- IMAPI CD-Burning COM Service

- Internet Connection Firewall (ICF) / Internet Connection Sharing (ICS)

- IPSEC Services

- Messenger

- MS Software Shadow Copy Provider

- Net Logon

- NetMeeting Remote Desktop Sharing

- Network DDE

- Network DDE DSDM

- Network Location Awareness (NLA)

- NT LM Security Support Provider

- Portable Media Serial Number

- QoS RSVP

- Remote Desktop Help Session Manager

- Remote Registry

- Routing and Remote Access

- Secondary Logon

- Server

- Smart Card

- Smart Card Helper

- SSDP Discovery Service

- Task Scheduler

- TCP/IP NetBIOS Helper

- Telnet

- Terminal Services

- Themes

- Upload Manager

- Volume Shadow Copy

- WebClient

- Windows Audio

- Windows Image Acquisition (WIA)

- Wireless Zero Configuration

- Print Spooler

- Uninterruptible Power Supply

Windows 2003 Server Services that may be disabled:

- Alerter

- Application Layer Gateway Service

- Application Management

- Automatic Updates

- Background Intelligent Transfer Service

- ClipBook

- COM+ Event System

- COM+ System Application

- Computer Browser

- Cryptographic Services

- DHCP Client

- Distributed File System

- Distributed Link Tracking Client

- Distributed Link Tracking Server

- Distributed Transaction Coordinator

- DNS Client

- File Replication

- Help and Support

- HTTP SSL

- Human Interface Device Access

- IMAPI CD-Burning COM Service

- Internet Connection Firewall (ICF) / Internet Connection Sharing (ICS)

- Intersite Messaging

- IPSEC Services

- Kerberos Key Distribution Center

- License Logging

- Messenger

- Microsoft Software Shadow Copy Provider

- Net Logon

- NetMeeting Remote Desktop Sharing

- Network DDE

- Network DDE DSDM

- Network Location Awareness (NLA)

- NT LM Security Support Provider

- Portable Media Serial Number Service

- Print Spooler

- Protected Storage

- Remote Access Auto Connection Manager

- Remote Desktop Help Session Manager

- Remote Registry

- Removable Storage

- Resultant Set of Policy Provider

- Routing and Remote Access

- Secondary Logon

- Server

- Shell Hardware Detection

- Smart Card

- Special Administration Console Helper

- Task Scheduler

- TCP/IP NetBIOS Helper

- Telnet

- Terminal Services

- Terminal Services Session Directory

- Themes

- Uninterruptible Power Supply

- Upload Manager

- Volume Shadow Copy

- WebClient

- Windows Audio

- Windows Image Acquisition (WIA)

- Windows Time

- WinHTTP Web Proxy Auto-Discovery Service

- Wireless Configuration

Windows 2000 Services that may be disabled:

- Automatic Updates

- Background Intelligent Transfer Service

- ClipBook

- COM+ Event System

- Computer Browser

- DHCP Client

- Distributed Link Tracking Client

- DNS Client

- Fax Service

- Internet Connection Sharing

- IPSEC Policy Agent

- Net Logon

- NetMeeting Remote Desktop Sharing

- Network DDE

- Network DDE DSDM

- QoS RSVP

- Remote Access Auto Connection Manager

- Remote Registry Service

- Routing and Remote Access

- Smart Card

- Smart Card Helper

- Task Scheduler

- TCP/IP NetBIOS Helper Service

- Telnet

- Wireless Zero Configuration

- Print Spooler

- Uninterruptible Power Supply

2. Leaving Services Enabled

Note, that the following services should NOT be disabled.

Windows XP Services that should NOT be disabled:

- Distributed Transaction Coordinator

- Error Reporting Service

- Event Log

- Human Interface Device Access

- Logical Disk Manager

- Logical Disk Manager Administrative Service

- Network Connections

- Performance Logs and Alerts

- Plug and Play

- Protected Storage

- Remote Access Auto Connection Manager

- Remote Access Connection Manager

- Remote Procedure Call (RPC)

- Removable Storage

- Security Accounts Manager

- Shell Hardware Detection

- System Event Notification

- System Restore Service

- Telephony

- Universal Plug and Play Device Host

- Windows Installer

- Windows Management Instrumentation

- Windows Management Instrumentation Driver Extensions

- Windows Time

- WMI Performance Adapter

- Workstation

Windows 2003 Server Services that should NOT be disabled:

- Error Reporting Service

- Event Log

- Logical Disk Manager

- Logical Disk Manager Administrative Service

- Network Connections

- Performance Logs and Alerts

- Plug and Play

- Remote Access Connection Manager

- Remote Procedure Call (RPC)

- Remote Procedure Call (RPC) Locator

- Security Accounts Manager

- System Event Notification

- Telephony

- Virtual Disk Service

- Windows Installer

- Windows Management Instrumentation

- Windows Management Instrumentation Driver Extensions

- WMI Performance Adapter

- Workstation

Windows 2000 Services that should NOT be disabled:

- Alerter

- Application Management

- Distributed Transaction Coordinator

- Event Log

- Logical Disk Manager

- Logical Disk Manager Administrative Service

- Messenger

- Network Connections

- NT LM Security Support Provider

- Performance Logs and Alerts

- Plug and Play

- Protected Storage

- Remote Access Connection Manager

- Remote Procedure Call (RPC)

- Remote Procedure Call (RPC) Locator

- Removable Storage

- RunAs Service

- Security Accounts Manager

- Server

- System Event Notification

- Telephony

- Utility Manager

- Windows Installer

- Windows Management Instrumentation

- Windows Management Instrumentation Driver Extensions

- Windows Time

- Workstation

3. Exceptions

The above lists are valid for the conditions that were tested. A user may require specific features not covered by these tests. For example when using PC networking on a second network adapter all of the services relevant to networking will not be disabled.

Note that after disabling the services on Windows 2003 Server, some delays may be observed in starting the CHARON-VAX License Key driver (about a minute).

Note that if you plan to print, do not disable "Print Spooler". If your host should support UPS, do not disable "Uninterruptible Power Supply". For Wireless Ethernet do not disable "Wireless Zero Configuration", etc.

Note that "Telephony" is needed for the default Hyper Term terminal emulator used in CHARON-VAX. If you plan to use a 3rd party terminal emulator that does not rely on "Telephony" this service can be disabled.

Please note that changing the status of standard services can be dangerous.

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