

Vanguard Managed Solutions

**Vanguard Applications Ware
SNA Feature Protocols Manual**

Notice

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To comment on this manual, please send e-mail to LGEN031@vanguardms.com

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About The Vanguard Applications Ware SNA Feature Protocols Manual

Overview

Introduction

The *SNA Feature Protocols Manual* contains user manuals that describe the options and protocols found in the Applications Ware SNA License and AS400 Applications Ware License Upgrade.

Audience

This binder is intended for use by those users of Vanguard products who are authorized to use the Applications Ware SNA license.

Software Revision Level

This manual is current for Release 6.4 of the Vanguard Applications Ware.

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What's In This Manual

Introduction	This manual contains detailed documentation covering all software features, options, and protocols that are supported in the SNA Applications Ware Software License package.
Bisynchronous Communication (BSC 2780/3780)	This manual describes the IBM Bisynchronous Communication (BSC) 2780 and 3780 protocols, including: <ul style="list-style-type: none">• detailed descriptions on how these bisync communication protocols operate• configuration, and administration over X.25 and Frame Relay networks• explanation of statistics to allow interpretation of network performance.
Bisynchronous Communication (BSC 3270)	This manual describes features and capabilities of IBM's BSC 3270 protocol. BSC 3270 allows the connection of multiple remote BSC devices to multiple hosts. This manual describes the theory behind BSC 3270 operation and defines many configuration parameters, as well as interpretation of BSC 3270 statistics.
IBM 2260 PAD Protocol	This manual describes the IBM 2260 PAD Protocol, including: <ul style="list-style-type: none">• detailed descriptions on how this protocol operates as a TPAD or HPAD• configuration and statistics information• worksheets onto which you can record various parameter values for future reference.
Synchronous Data Link Control (SDLC) Protocol	This manual describes the SDLC protocol and it's support of SNA data traffic. This manual includes: <ul style="list-style-type: none">• detailed description of the features and support offered by SDLC• configuration information including configuration examples to further explain SDLC.
X.25 Data Link Control (XDLC) Protocol	This manual describes the hardware requirements, configuring the XDLC option, along with operation and administration information.
AS/400 Communications Server Feature	This manual describes the AS/400 Communications Server Feature for Vanguard products. This feature emulates 5494-type controller interfacing for non-5494-type controllers, using the Vanguard as a conversion station. With emulation, these non-5494-type controllers can be connected (through the Vanguard) to the AS/400 through Token Ring LAN, Ethernet LAN, or Frame Relay. This manual includes: <ul style="list-style-type: none">• detailed description of the functions and support offered by this feature• configuration information for the Vanguard, including all associated configuration requirements for the AS/400 and attached controllers and devices.• Statistics and troubleshooting information

BSC 3270-to-SNA Conversion

BSC 3270-to-SNA conversion allows banks and ATM network providers to retain BSC 3270-attached ATMs while providing a LAN attachment at the host. The BSC 3270-to-SNA converts the upper layers of SNA and the LLC2 data link control (layer two) protocol in the host Vanguard 7300 node to Display System Protocol (DSP) for transport within Frame Relay (Annex G) or X.25.

BSC 2780/3780-to-SNA/LU0 Conversion

The BSC 2780 and 3780-to-SNA/LU0 conversion is designed specifically for use in Tandem and IBM S/390 networks utilized by large financial institutions. SNA/LU0 was not designed for (batch) file transfer.

TN3270 Remote Server

Remote TN3270 Server allows IP devices to communicate with an SNA mainframe. Users running a TN3270 emulator on their workstation can map an IP address to a LU session. The TN3270 Remote Server allows an IP workstation (running a TN3270 emulator at remote branch sites) to gain access to a SNA Mainframe at a host site across a Frame Relay network. The TN3270 Remote Server software maps the SNA Data Frames that it receives on the Frame Relay Network to the appropriate IP address that is assigned to the workstation running the TN3270 Emulator. In the opposite direction the TN3270 data frames from the workstation are mapped to SNA data frames before being transmitted to the Frame Relay Network. The TN3270 data frames are transported across the Ethernet in IP packets. QLLC-to-SDLC conversion stations are the only stations that support TN3270 LU's. QLLC provides a guaranteed Data Link Layer for transport of SNA frames and runs over X.25, Frame Relay Annex G, and ATM FRST stations.

Glossary

The final manual in the SNA Feature Protocols Manual is a technical glossary that explains many technical terminologies and acronyms used in this, and all Vanguard documentation.

Related Documentation

Introduction

It may become necessary to refer to other documents in order to obtain all of the technical information that you may require. This section identifies all of the related Vanguard products documentation including:

- “Vanguard Installation Manuals” on page xi
 - “Software License Feature Documentation” on page xii
 - “Software Coldloading/Installation and Alarms and Reports Manuals” on page xv
-

Vanguard Installation Manuals

Introduction

Installation manuals describe the installation and set up of specific Vanguard equipment. Installation Manuals provide information that may assist you in locating ports, cabling, and modifying DTE/DCE settings.

Available Installation Manuals

This table identifies the installation manuals available:

Part Number	Title
T0126	Vanguard 6520/6560 Installation Manual
T0002	Vanguard 6500 ^{PLUS} Installation Manual
T0015	Vanguard 100 Installation Manual
T0016	Vanguard 100PC Installation Manual
T0017	Vanguard 200 Installation Manual
T0021	650 Operator's Guide
T0047	Vanguard 305 Installation Manual
T0019	Vanguard 310 Series Installation Manual
T0032	Vanguard 320 Installation Manual
T0178	Vanguard 340 and 340 Enhanced Installation Manual
T0257	Vanguard 342 Installation Manual
T0031	Vanguard 6400 Series Installation Manual
T0142	Vanguard 6425 Installation Manual
T0166	Vanguard 6435/6455 Installation Manual
T0185	Vanguard 7300 Installation Manual

Documentation Website

These manuals are located on our website:

<http://www.vanguardms.com/support/documentation>

Software License Feature Documentation

Introduction

Use of the Vanguard Applications Ware software is controlled via software licenses purchased. Each license is supported by a suite of protocol documentation to provide you with the information required to fully understand the ways in which you can use your Applications Ware license.

In addition to this SNA Feature Protocols Manual, these additional documentation suites are available:

- IP and LAN Features Protocols
- Serial Feature Protocols
- Multi-Service Feature Protocols
- Multimedia Feature Protocols
- Basics Protocols

IP and LAN Feature Protocols

The IP and LAN Feature Protocols (Part Number T0100) contains the following options and protocol documentation which describe the IP and LAN functionality of the Vanguard Applications Ware:

- Vanguard Router Basics
- Ethernet Basics
- Token Ring
- Bridging
- IP Routing
- OSPF
- SLIM IP
- SoTCP
- IPX
- AppleTalk
- Protocol Priority
- Quality of Service
- Asynchronous Transfer Mode
- T3 ATM
- Border Gateway Protocol (BGP-4)
- G.SHDSL
- Traffic Monitor

Serial Feature Protocols

The Serial Feature Protocols Manual (Part Number T0102) contains the following options and protocol documentation which describe the underlying serial protocol functionality in the Vanguard Applications Ware:

- Burroughs Polled Select
- NCR BSC
- TBOP
- NCCP
- TCOP
- SHDLC

- T3POS
- 3201 ASYNC
- X.42
- TNPP
- TPDU
- SPP
- AC100
- ALC

**Multi-Service
Feature Protocols**

The Multi-Service Feature Protocols Manual (Part Number T0103) contains the following options and protocol documentation which describe the underlying multi-service functionality in the Vanguard Applications Ware:

- Internal DSD
- Multipoint X.25
- Frame Data Compressor
- DataScope
- SMDS
- Vanguard ISDN Protocol Guide
- Vanguard 6520/6560 ISDN Protocol Guide
- Data Encryption
- Virtual Private Network

**Multimedia Feature
Protocols**

The Multimedia Feature Protocols Manual (Part Number T0104) contains the following documentation for multimedia features of the Vanguard Applications Ware:

- Voice Technology
- Vanguard Voice

■ **Note**

The Multimedia Applications Ware license currently supports only the voice feature. The RemoteVU Operator's Manual (Part Number T0054) is now available on the web only. The RemoteVU Manual explains the support offered for the RemoteVU Host Video Workstation application.

**Vanguard
Applications Ware
Basic Protocols**

The Vanguard Applications Ware Basic Protocols Manual (Part Number T0106) contains the following options and protocol documentation which describe the underlying functionality of the Vanguard Applications Ware:

- Vanguard Basic Configuration
 - X.25 Basics
 - APAD/ATPAD
 - Bandwidth Management
 - Frame Relay
 - Trans Polled Async
 - SNMP
 - ASYNC BYPASS
 - SLIP
 - TELNET
 - PPP
 - CLI
-

Software Coldloading/Installation and Alarms and Reports Manuals

Introduction

These manuals offer direction on installing and coldloading software into Vanguard nodes, and explanations of the alarms and report messages that may be displayed on your terminal screen.

Software Coldloading and Installation Manual

This manual describes the different methods of installing software in Vanguard products. It describes software installation by:

- the Vanguide Software Loader
 - downloading software from a Macintosh or PC using Communication Software such as Procomm Plus
 - Ping software from a LAN
-

Alarms and Reports Manual

This manual lists the Vanguard products operating software alarms and reports. Descriptions, corrective actions, trap numbers, and clearing events are also included.

The alarms and traps database is also available on the web:

- 1) Access the web site: **<http://www.vanguardms.com/support/>**
Select Alarm Search.
-

Ease of Configuration

Introduction

Ease of Configuration is a system enhancement that allows you to implement specific changes to your configuration without the need to reboot the node.

Previously, you had to boot the node to implement changes to certain parameters (those with an asterisk in their name). For example, changes to the Port Record parameter Port Type would only take effect after the node was booted. This disrupted data until the node came back up. However, with Ease of Configuration you only have to boot that port. Data continues to pass through the node's other ports without disruption.

Ease of Configuration is supported on the Vanguard 34x, 64xx, 6520, and 6560.

■ Note

With the Vanguard 7300 Series the Ease of Configuration is always on.

Protocol Support SNA Feature Binder

Ease of Configuration does not currently support all port types and their associated parameters. These are the protocols in the *Vanguard SNA Feature Protocol* binder (Part Number T0101) that are currently supported by Ease of Configuration:

SDLC

For information about using Ease of Configuration with SDLC ports, refer to “SDLC Port” section on page xx. For detailed information about SDLC, refer to the *SDLC Feature Protocol Manual* (Part Number T0101-05).

XDLC

For information about using Ease of Configuration with XDLC ports, refer to “XDLC Port” section on page xxi. For information about XDLC ports, refer to the *XDLC Feature Protocol Manual* (Part Number T0101-06).

BSC 3270

Ease of Configuration does not fully support BSC 3270. However, there is a way to reduce the need to boot the node when adding devices to existing BSC 3270 ports. For information, refer to “BSC 3270 Port/Device” section on page xxii. For information about BSC 3270 ports, refer to the *BSC 3270 Feature Protocol Manual* (Part Number T0101-03).

BSC 2780/3780

For information about using Ease of Configuration with BSC 2780/3780, refer to “BSC 2780/3780 Port” section on page xxiii. For information about BSC 3270 ports, refer to the *BSC 2780/3780 Feature Protocol Manual* (Part Number T0101-02).

Protocol Support Serial Feature Binder

These are the protocols in the *Vanguard Serial Feature Protocol* binder (Part Number T0102) that are currently supported by Ease of Configuration:

TBOP

For information about using Ease of Configuration with TBOP ports, *Vanguard Serial Feature Protocol* binder (Part Number T0102). For detailed information about TBOP, refer to the *Transparent Bit Oriented Protocol Manual* (Part Number T0102-04).

TCOP

For information about using Ease of Configuration with TCOP ports, refer to the *Vanguard Serial Feature Protocol* binder (Part Number T0102). For detailed information about TCOP, refer to the *Transparent Character-Oriented (TCOP) Protocol Manual* (Part Number T0102-06).

■ Note

Ease of Configuration also supports the NULL Port Type. For more information, refer to the *Configuring With PAD/ATPAD Manual* (Part Number T0110).

Alarms

When using Ease of Configuration, make sure to enable high alarms level (in the Node Record). This allows you to monitor the progress and status of the port boots. Two high severity alarms are generated:

- One indicates the start of the boot process.
- The other indicates either the completion or failure of the boot process.

If insufficient resources are available, or if a port type is not supported, the boot fails and a unique alarm is generated. The port is also downgraded to a NULL port.

For a detailed description of the Ease of Configuration alarms, refer to the *Alarms and Reports Manual* (Part Number T0005).

The alarms and traps database is also available on the web:

- 1) Access the web site: <http://www.vanguardms.com/support/>
- 2) Select Alarm Search.

When to Use Ease of Configuration

You should use Ease of Configuration when it is important not to disrupt existing applications each time a port is reconfigured.

With memory intensive applications and protocols such as Voice and IP, you may need to install additional RAM in the node.

Boot Time

With Ease of Configuration, the time it takes to boot a port (and implement the configuration changes) varies depending on how heavily the device is being used.

- If the node is handling minimal traffic, the boot process occurs quickly (a few seconds).
- If the node is handling a considerable amount of traffic, the boot process could take longer (several minutes).

Enable Ease of Configuration

Introduction

This section explains how to configure and set up your Vanguard device for Ease of Configuration.

Device Memory

Ease of Configuration is a memory intensive function. Therefore, be sure that your node has the maximum amount of RAM it can handle. For information about memory capacity, refer to the installation guide that came with your device.

Parameters

To enable Ease of Configuration, you need to configure two Node Record parameters and then boot the node.

For Ease of Configuration, these parameters should be set to their maximum value.

The parameters are described below:

■ Note

These parameters are also described in the Configure the Node chapter of the *Vanguard Basic Configuration Manual* (Part Number T0113).

*Shared Dynamic Port Creation Heap Size

Range:	0 to 16000000
Default:	0
Description:	<p>This specifies the size of the special shared memory pool dedicated for Ease of Configuration.</p> <ul style="list-style-type: none">• To disable this parameter set to zero (0).• To enable Ease of Configuration, set this parameter to the maximum value. <p>■ Note A change to this parameter requires a node boot to take effect.</p>

*Local Dynamic Port Creation Heap Size

Range:	0 to 16000000
Default:	0
Description:	<p>This specifies the size of the special local memory pool dedicated for Ease of Configuration.</p> <ul style="list-style-type: none">• To disable this parameter set to zero (0).• To enable Ease of Configuration, set this parameter to the maximum value. <p>■ Note A change to this parameter requires a node boot to take effect.</p>

Configuring the Parameters

This table explains how to configure the two parameters:

Step	Action
1	From the Main menu, select Configure .
2	From the Configure menu, select Node .
3	Press ENTER until the parameter *SHARED Dynamic Port Creation Heap Size appears. Enter the maximum value (16000000).
4	Press ENTER again. The parameter *LOCAL Dynamic Port Creation Heap Size appears. Type the maximum value (16000000).
5	Press ; (semi-colon) and then press ENTER .
6	Perform a Node Boot (Warm). The node reboots and the Ease of Configuration function is enabled.

■ Note

After you complete this procedure, review the alarm log for disabled ports. If necessary, reduce the resource requirements allocated to the other ports and stations and repeat the above procedure.

SDLC Port

Introduction

Ease of Configuration is available as soon as you make the appropriate changes to the Node Record parameters *SHARED Dynamic Port Creation Heap Size and *LOCAL Dynamic Port Creation Heap Size and reboot the node.

This section explains how the Ease of Configuration function is used with the SDLC protocol.

SDLC Port Parameters

These are the SDLC Port Record parameters supported by Ease of Configuration:

- *Port Type
- *Port Subtype
- *Type of Line
- *Number of Controllers
- *Protection Level

Once Ease of Configuration is enabled, changes to these parameters are implemented by simply booting the port.

■ Note

Afterwards, be sure to review the alarm log and port statistics to ensure that the configuration changes have been made.

PVC Support

Using Ease of Configuration with an SDLC PVC is slightly more complicated than with just the SDLC port.

■ Note

As it is currently implemented, to use Ease of Configuration with PVCs, you need to make a change to the SDLC Port record. The easiest way is to change the parameter Number of Controllers, but any other parameter in the above list is appropriate.

To use Ease of Configuration with a PVC, perform this procedure for both ends of the PVC:

Step	Action
1	Modify the PVC Table Entry.
2	Boot the Table and Node Record.
3	Modify the SDLC Port parameter and boot the port.
4	Modify the SDLC Port back to its original setting and boot the port.

XDLC Port

Introduction

Ease of Configuration is available as soon as you make the appropriate changes to the Node Record parameters *SHARED Dynamic Port Creation Heap Size and *LOCAL Dynamic Port Creation Heap Size and reboot the node.

This section explains how the Ease of Configuration function is used with the XDLC protocol.

XDLC Parameters

These are the XDLC parameters supported by Ease of Configuration:

- *Port Type
- *Port Subtype
- *Number of Stations
- *Protection Level
- *Number of PVC Channels
- *Starting PVC Channel Number
- *Number of SVC Channels
- *Starting SVC Channel Number

Once Ease of Configuration is enabled, changes to these parameters are implemented by simply booting the port.

■ Note

Afterwards, be sure to review the alarm log to ensure that the configuration changes have been made.

PVC Support

Using Ease of Configuration with an XDLC PVC is slightly more complicated than with just the XDLC port.

■ Note

As it is currently implemented, to use Ease of Configuration with PVCs, you need to make a change to the XDLC Port record. The easiest way is to change the parameter Number of Controllers, but any other parameter in the above list is appropriate.

To use Ease of Configuration with a PVC, perform this procedure for both ends of PVC:

Step	Action
1	Modify the PVC Table Entry.
2	Boot the Table and Node Record.
3	Modify the XDLC Port and boot the port.
4	Configure the SDLC or MX.25 stations.
5	Modify the XDLC port back to its original setting and boot the port.

BSC 3270 Port/Device

Introduction

Ease of Configuration does not currently support BSC 3270 ports. However, there is a way to reduce the need to boot the node when adding devices to existing BSC 3270 ports.

Procedure

Perform this procedure to configure the BSC 3270 ports and devices:

Step	Action
1	Set the Node Record parameter Quantity of DSP Devices to its maximum setting.
2	Configure all current and future Bisync Port and Bisync Devices.
3	Use the Disable Port/Station command to disable all future ports and devices.
4	Boot the node.

Now, when you want to add a BSC 3270 port or device, simply use the Port/Station Enable command and then boot the port.

BSC 2780/3780 Port

Introduction

Ease of Configuration is available as soon as you make the appropriate changes to the Node Record parameters *SHARED Dynamic Port Creation Heap Size and *LOCAL Dynamic Port Creation Heap Size and reboot the node.

This section explains how the Ease of Configuration function is used with the BSC 2780/3780 protocol.

PVC Support

Using Ease of Configuration with BSC 2780/3780 PVC is slightly more complicated than with just the 2780/3780 port.

■ Note

As it is currently implemented, to use Ease of Configuration with PVCs, you need to make a change to the 2780/3780 Port record. The easiest way is to change the parameter Number of Controllers, but any other parameter in the above list is appropriate.

To use Ease of Configuration with a PVC, perform this procedure for both ends of the PVC:

Step	Action
1	Modify the PVC Table Entry.
2	Boot the Table and Node Record.
3	Modify the BSC 2780/3780 Port parameter and boot the port.
4	Modify the BSC 2780/3780 Port back to its original setting and boot the port.

Node and Port Statistics

Introduction

This section describes the Ease of Configuration information within the Node Statistics screens.

During the Ease of Configuration port boot, node and port related statistics are not accessible until the port boot has completed.

Dynamic Heap

The Dynamic Heap is split into two pools: Shared and Local.

- Shared Dynamic Heap: This tends to be a one time, fixed allocation for the port level. After the ports are configured, additional adjustments do not consume additional resources.
- Local Dynamic Heap: The dynamic local heap allocates structures for port, stations/devices and channels. It tends to be much larger in size than the dynamic shared heap. The local heap is more susceptible to fragmentation as a result of multiple Dynamic Port Boots.

Heap Memory Statistics

The detailed Dynamic and Static Memory Heap information appears on page 3 of the Node statistics screens. See Figure 1.

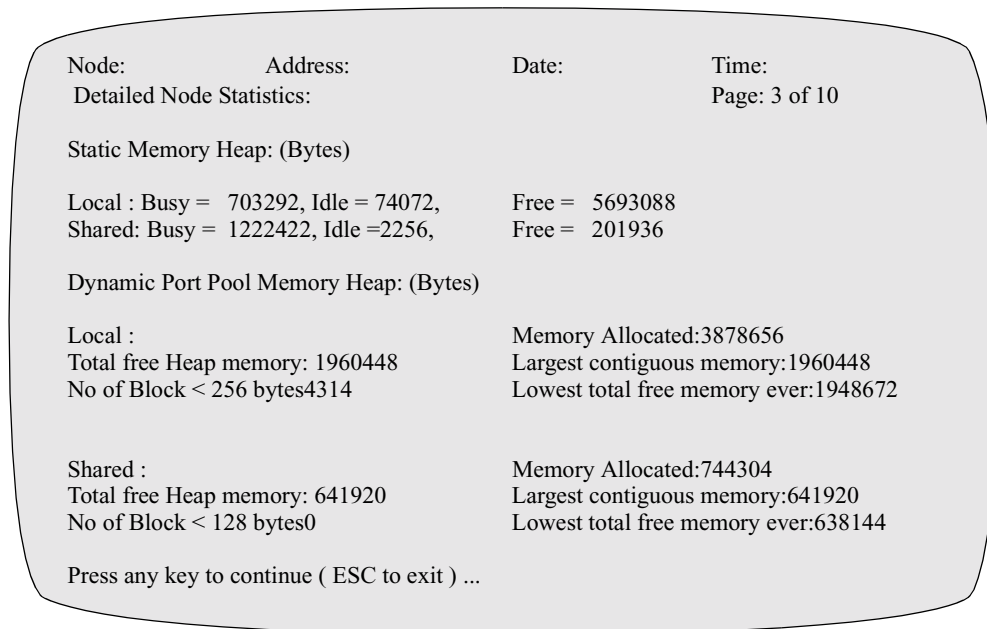


Figure 1. Memory Heap Statistics

Memory Statistics Screen Terms

This table describes the Memory Statistics screen terms shown in Figure 1.

Terms	Description
Memory allocated	The amount of memory available for Ease of Configuration.
Total free Heap memory	The remaining amount of memory available. This could be fragmented.
Largest contiguous memory	The largest free chunk of memory. As the port boot occurs, memory can be given back to the pool from the resource being shut down. This may or may not facilitate recombination into a larger available memory.
No. of blocks	Indicates the number of small blocks of memory available and may be fragmented.
Lowest total free memory ever:	The lowest amount of free memory since the last reset. This provides a history so you can adjust the dynamic heap values in the node record or add additional heap memory.

Statistics Screen During Dynamic Boot

The Port and Link Statistics display is not available during port boot. It becomes available after Dynamic Port Boot is completed, as shown in Figure 2.

```

12. Diagnostics
13. Default Node
14. (reserved)
15. Configuration Save/Restore
16. Flash Memory
17. LAN Control Menu
18. DEBUG

#Enter Selection: 5.2

Node:           Address:           Date:           Time:
Dynamic Boot In Progress           Page: 1 of 1

Port #1 is booting. Try again in 5 seconds.

Press any key to continue (ESC to exit ) ...

```

Figure 2. Dynamic Boot Screen

Special Notices and Translations

Special Notices

The following notices emphasize certain information in the guide. Each serves a special purpose and is displayed in the format shown:

■Note

Note is used to emphasize any significant information.



Caution

Caution provides you with information that, if not followed, can result in damage to software, hardware, or data.



Warning

Warning is the most serious notice, indicating that you can be physically hurt.

Simplified Chinese

特别通告

以下通告强调指南中的某些信息。
每条信息均有一个特殊的目的并以如下格式显示:

■注解

注解用于强调任何重要的信息。



切记

切记提供您这类信息，如果不遵照信息的要求，可能导致软件、硬件或数据的损坏。



警告

警告是最严重的通告，表明您的身体可能被伤害。

Danish

Særlige overskrifter

Følgende overskrifter fremhæver nogle af oplysningerne i vejledningen. De tjener hvert et specifikt formål og vises i følgende format:

■Bemærk

Bemærk anvendes til at fremhæve vigtig information.



Forsigtig

Forsigtig understreger oplysninger, som, hvis de ikke bliver fulgt, kan føre til beskadigelse af software, hardware eller data.



Advarsel

Advarsel er den mest alvorlige overskrift, og tilkendegiver mulig personskaade.

Dutch

Bijzondere vermeldingen

De volgende vermeldingen besteden extra aandacht aan bepaalde informatie in de handleiding. Elke vermelding heeft een eigen nut en wordt in de volgende opmaak weergegeven:

■Opmerking

Een opmerking wordt gebruikt om belangrijke informatie te benadrukken.



Let op

Dit kopje geeft aan dat u de beschreven instructies moet volgen om schade aan de software, hardware of gegevens te vermijden.



Waarschuwing

Een waarschuwing is de belangrijkste vermelding. Indien u deze niet volgt, kan dit tot lichamelijke verwondingen leiden.

Finnish

Eritysilmoitukset

Seuraavat ilmoitukset korostavat tiettyjä oppaan tietoja. Kullakin on oma erikoistarkoituksensa ja ne esitetään seuraavassa muodossa:

■Huomaa

Huomautusta käytetään korostamaan tärkeitä tietoja.



Vaara

Vaarailmoitus antaa tietoa, jonka huomiotta jättäminen voi johtaa ohjelmiston, laitteiston tai tietojen vahingoittumiseen.



Varoitus

Varoitus on kaikkein vakavin ilmoitus ja se kertoo mahdollisesta loukkaantumiseriskistä.

French

Messages spéciaux

Les messages suivants mettent en valeur certaines informations dans le guide. Chacun d'eux remplit une fonction spéciale et est affiché dans le format indiqué :

■Important

Important est utilisé pour souligner des informations critiques au sujet d'une procédure.



Mise en Garde

Une mise en garde vous fournit des informations qui, si elles ne sont pas observées, peuvent se traduire par des dommages pour le logiciel, le matériel ou les données.



Avertissement

Un avertissement constitue le message le plus sérieux, indiquant que vous pouvez subir des blessures corporelles.

German

Besondere Hinweise

Durch die folgenden Hinweise werden bestimmte Informationen in diesem Handbuch hervorgehoben. Jeder Hinweis dient einem bestimmten Zweck und wird im dargestellten Format angezeigt:

■Wichtig

WICHTIG wird zur Betonung signifikanter Angaben zu Vorgehensweisen verwendet.



Vorsicht

Ein Vorsichtshinweis macht Sie darauf aufmerksam, daß Nichtbefolgung zu Software-, Hardware- oder Datenschäden führen kann.



Warnung

Eine Warnung weist Sie darauf hin, daß ernsthafte Körperverletzungsgefahr besteht.

Italian

Simboli speciali

I seguenti simboli, ciascuno con una speciale funzione, evidenziano determinate informazioni all'interno del manuale. Il formato è quello riportato qui di seguito.

■Nota

Questo tipo di avvertimento viene utilizzato per evidenziare tutte le informazioni significative relative ad una procedura.



Attenzione

Questo tipo di avvertimento fornisce informazioni che, se non vengono seguite, possono provocare danni al software, all'hardware o ai dati.



Avvertenza

Questo tipo di avvertimento indica la presenza di condizioni di rischio che possono causare lesioni fisiche. Si tratta del simbolo più importante al quale prestare attenzione.

Japanese

特別表記

ガイド内では、以下の表記を使って特に注意する必要がある情報が提供されます。各表記にはそれぞれ目的があり、次の形式で表示されます。

■重要

重要な情報が記述されています。



注意

記述されている内容に従わない場合、ソフトウェア、ハードウェア、またはデータが壊れる可能性があります。

警告

最も重要な情報が記述されています。身体的な障害を被る可能性があります。

Korean

일러두기

이 설명서에는 사용자에게 특정한 내용을 강조하기 위해서 다음 내용이 포함되어 있습니다.

■참고

중요한 정보를 강조하는데 사용합니다.



주의

소프트웨어나 하드웨어, 또는 데이터를 손상시킬 수 있으므로 주의가 필요한 상황을 알립니다.



경고

사용자의 안전에 위험을 알리는 가장 심각한 수준의 경고입니다.

Norwegian

Spesielle merknader

Merknadstypene nedenfor representerer en bestemt type informasjon i håndboken. Hver merknadstype har en spesiell hensikt og vises på følgende format:

■Merk

Merk brukes for å fremheve viktig informasjon.



Forsiktig

Forsiktig gir deg informasjon om situasjoner som kan føre til skade på programvare, datamaskin eller data dersom den blir fulgt.



Advarsel

Advarsel er den mest alvorlige merknaden og indikerer at du kan bli fysisk skadet.

Portuguese/ Portugal

Avisos Especiais

Os avisos que se seguem realçam certas informações neste guia. Cada um deles serve um objectivo especial e é visualizado no formato apresentado:

■Nota

Nota é utilizado para realçar qualquer informação importante.



Atenção

Atenção facultalhe informações que, se não forem cumpridas, poderão provocar danos no software, hardware ou nos dados.



Cuidado

Cuidado constitui o aviso mais grave, o qual indica que poderá ficar fisicamente ferido.

Spanish/Spain

Notificaciones especiales

Las siguientes notificaciones ponen énfasis sobre determinada información de la guía. Todas tienen un propósito especial y se muestran con el formato siguiente:

■Nota

Las notas se utilizan para destacar determinada información de importancia.



Advertencia

Las advertencias le proporcionan información que debe seguirse, si no desea que el software, el hardware o los datos puedan verse da—ados.



Aviso

Los avisos son las notificaciones de carácter más importante e indican la posibilidad de daños físicos para el usuario.

Swedish

Speciella beteckningar

Följande beteckningar betonar viss information i handboken. Var och en har ett speciellt syfte och visas i formatet nedan:

■OBS!

OBS! används för att betona viktig information.



Viktigt

Viktigt ger dig information som, om den inte följs, kan resultera i skada i programvara, maskinvara eller data.



Varning

Varning är den mest allvarliga beteckningen och den indikerar att du kan skadas fysiskt.

Customer Information

Customer Questions

Customers who have questions about Vanguard Managed Solutions products or services should contact your VanguardMS representative or visit this website for product, sales, support, documentation, or training information:

<http://www.vanguardms.com>

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Part Number: T0101, Revision K

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