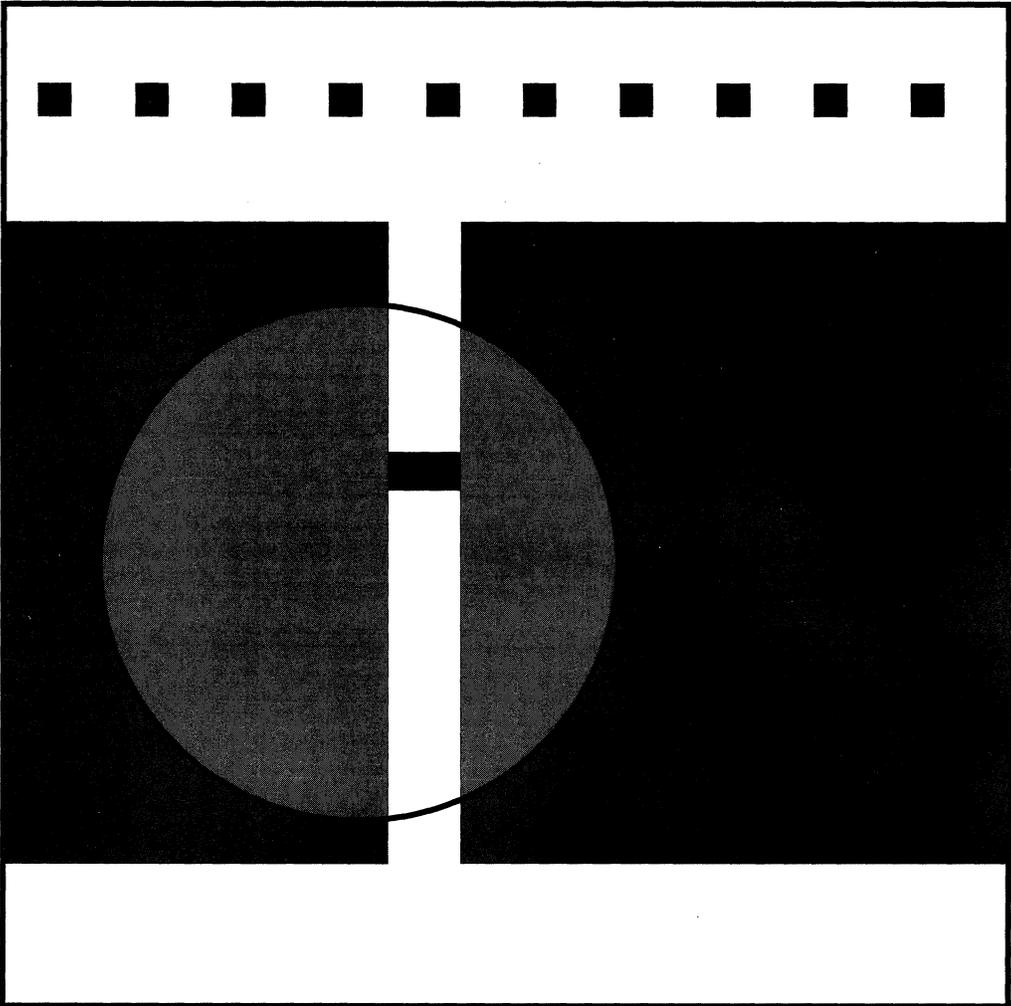


**Overview**

Version 4 Release 2 for VM/ESA and VSE/ESA



## VTAM Overview



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Greetings:

Thank you for choosing IBM\* to help you meet your networking needs with the VTAM\* program. For the first time, we are offering you VTAM in three packages: VTAM Client/Server, VTAM MultiDomain, and VTAM InterEnterprise.

This decision marks the beginning of a new era for VM and VSE users of VTAM. Now you can choose a package based on the set of capabilities you need in your particular network. Each package is designed to maximize performance and reduce your networking costs, because you pay only for the functions you need.

If you have chosen **VTAM Client/Server**, you get the full Advanced Program-to-Program (APPC) and Advanced Peer-to-Peer Networking\* (APPN\*) capabilities on the host. These functions allow your host to be a server in peer networking environments.

Not only do you get the APPN and APPC functions essential for distributed peer networking, you also get the powerful connection options that VTAM users have come to rely on over time. Clients can be on any number of different line types and receive the full support of VTAM.

APPN dynamics, ease of use, and SNA power and reliability combine to offer you a valuable networking solution for client/server networks.

If you have chosen **VTAM MultiDomain**, our package of choice, you receive a set of functions designed to accommodate the networking needs of a large network. In addition to the capabilities available in VTAM Client/Server, VTAM MultiDomain gives you what you need for networks with multiple domains.

If you have chosen **VTAM InterEnterprise**, you get functions that build on those offered in VTAM Client/Server and VTAM MultiDomain to help you meet the needs of inter-enterprise, interconnected networks. With this package, you have the VTAM functions you need to manage and control interconnected networks.

The information that accompanies your package covers all of the functions VTAM offers. To help you determine what information applies to your package, use this flyer as a quick reference to the functions your package supports. It is intended to be used along with the books in the VTAM product library.

Regardless of the package you have chosen, we want you to be satisfied with our product. As always, we appreciate your business and look forward to hearing from you if you think we can help you in any way. Please feel free to contact us through the reply card at the end of every book in the VTAM product library.

Sincerely,

A handwritten signature in cursive script that reads "Susan".

Susan Orr  
VTAM Product Manager

\* Trademark of IBM Corporation.

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## About This Flyer

This flyer describes the new way in which VTAM is packaged for the VM/ESA\* and VSE/ESA\* operating systems. It tells you about:

- Ordering VTAM initially
- Changing your package
- Starting VTAM.

For each package, this flyer lists the functions included. For VTAM Client/Server and VTAM MultiDomain, it also lists the keywords, start options, and operands that are not supported.

Use this flyer along with the VTAM product library to help you understand which information applies to you.

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## How VTAM V4R2 Is Packaged

When you order VTAM V4R2 for VM/ESA and VSE/ESA, you choose one of three packages:

- VTAM Client/Server
- VTAM MultiDomain
- VTAM InterEnterprise.

VTAM Client/Server is designed for client/server networks that require basic APPN and subarea support. If a function is not listed here under any package, you can assume that it is included in VTAM Client/Server.

VTAM MultiDomain includes the functions available in VTAM Client/Server along with additional APPN and subarea functions, such as the capability to own an NCP.

VTAM InterEnterprise includes the functions available in VTAM Client/Server and VTAM MultiDomain along with the APPN and subarea functions that are required in an interconnected network.

For users in a combined VM/ESA and VSE/ESA environment, you can order VTAM for VM as a feature of VTAM for VSE at a special price. You can order VTAM for VSE first and VTAM for VM later on, or you can order them simultaneously. Either way, you can take advantage of this special offer.

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## Ordering VTAM Initially

When you place your order for the package you want, you receive with the package some information, which includes a password. You need this password to start VTAM. For instructions, see "Starting VTAM."

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## Changing to a Different Package

If you decide you want a different package from the one you are running, you need to see any of the following for information on how to place your order:

- VTAM product announcement materials
- The ordering system configurator
- IBM Sales Manual
- Your IBM representative.

When you place your order, you need the following information:

- Your IBM customer number
- The VTAM Version 4 program number:
  - VTAM Version 4 for VM/ESA: 5654-010
  - VTAM Version 4 for VSE/ESA: 5686-065
  - VTAM VM Feature for VSE/ESA: 5686-065
- The feature order number for the package you want. (See the VTAM product announcement materials.)

After you place your order, you will receive your password, which you need to start VTAM. For instructions, see "Starting VTAM."

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## Starting VTAM

### Important:

In most cases, you must update your **VM** startup EXEC or your **VSE** start procedure with your IBM customer number and your VTAM password for the package you have ordered.

**VM** For further information and instructions, see "PROFILE for the VTAM Virtual Machine" in the *VTAM Network Implementation Guide*.

**VSE** For further information and instructions, see "Starting VTAM" in the *VTAM Network Implementation Guide*.

When you start VTAM, the following message confirms which VTAM package you are running:

```
IST1497I VTAM FUNCTIONAL SUPPORT LEVEL IS package_name
```

If you enter a customer number and password that are not valid, this message is issued:

```
IST001 VTAM START REJECTED - INVALID CUSTNO AND VTAMPW
```

For explanations of these messages, see *VTAM Messages and Codes*.

### VTAM Client/Server Functions

VTAM Client/Server includes programming interfaces for network management, security, and application programs, such as CICS, VTAM record application programs, and VTAM LU 6.2 application programs.

APPN support through integrated communication adapters (ICAs) allows APPN connections for switched and non-switched type 2.1 nodes as APPN nodes in a token-ring, X.25, or SDLC X.21 network.

VM users enjoy an additional benefit: installing with the VMSES/E tool. Now you can use this tool to install and maintain VTAM.

### Connectivity

- To NCP (connection only, no ownership)
  - Parallel transmission groups (TGs)
  - Transmission priorities
- To the IBM 3174 Establishment Controller
- To the IBM 3172 Interconnect Controller
  - Token-ring networks
  - Ethernet networks
  - Fiber distributed data interface (FDDI) lines
  - IBM 3710 Network Controller
  - Local SNA devices
  - Local non-SNA devices attached to the IBM 3272 Local Control Unit
- To channels
  - Channel Data Link Control connections
  - Enterprise Systems Connection (ESCON\*)
    - For communication controllers
    - For host attachments
  - ESCON non-SNA 3174 channels for hosts
  - For APPN host-to-host channels only
    - Multipath channels
    - IBM 3088 Channel Multiplexor
- To integrated communication adapters (ICAs)
  - X.25 networks
  - Token-ring networks
  - Ethernet networks
  - Fiber distributed data interface (FDDI) lines
  - Synchronous data link control (SDLC) lines
  - Switched lines

### Installation and Service Enhancements

- Installing VTAM using the VMSES/E tool **VM**

### Installation-Wide Exit Routine Enhancements

- Session accounting exit routine
- Session authorization exit routine

### LU 6.2 and Record Application Program Interface (API) Enhancements

- Conversation status
- Deallocate request processing
- Full-duplex
- LU 6.2 programming macroinstructions (APPCCMDs)
- Receive immediate
- VTAM record API macroinstructions

### Network Dynamics

- APPN
  - Class-of-service table
  - Connection network (including APPN over ICA connections)
  - End node (including APPN over ICA connections)
  - Host-to-host channel
  - Network node (including APPN over ICA connections)
- Controlling the use of logon mode table entry, ISTCOSDF
- Dynamic configuration of channel-attached devices
- Dynamic definition of a switched or token-ring connection
- Dynamic definition of independent LUs
- Dynamic modification of DLOGMOD operand
- Dynamic replacement of logmode tables
- Dynamic replacement of class-of-service tables
- Dynamic reconfiguration
- Expanded dial information

### Operator Interface Enhancements

- Centralized support for modifiable start options (MODIFY VTAMOPTS)
- DISPLAY command enhancements
- Display of VTAM start options (DISPLAY VTAMOPTS)
- Inactivating LUs in a pending-notify state
- Verification of VTAMLST syntax
- Online message facility (added for VM)
- Support for message level
- Support for program operators
- User-defined message flooding prevention table
- VTAM support for IBM Command Tree/2 (added for VM)

### Performance Enhancements

- Authorized transmission priority for LEN connections
- Automatic termination of sessions using too much of IO buffer pool (HOTIOTRM)
- Session limits for switched resources

## Problem Diagnosis

- Analysis tools for an externally recorded VTAM internal trace (added for VM)
- Buffer contents trace enhancements
- Capturing of diagnosis information with First Failure Support Technology (added for VM)
- Communication network management trace (added for VM)
- Display of active traces
- VIT enhancements

## Security

- Call security verification for switched subareas

## SNA Subarea

- Class-of-service table
- Substitute COS name
- Links to one or more NCPs
- SSCP-to-LU sessions
- SSCP-to-PU sessions
- Non-native network connection
- Logon interpret table and logon interpret routine

## System and Configuration Management

- Expanded addressing pool
- Network-qualified names
- Specifying search order for locating switched PUs
- 31-bit addressing capability

## VM/SNA Console Support (VSCS) Enhancements (VM)

- Controlling pending requests
- Display of dynamic changes to system status field
- Logon and disconnect improvements
- Network-qualified names

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## VTAM Client/Server Restrictions

In VTAM Client/Server, some keywords, definition statements, start options, and operands on commands are not supported. This section lists what is not supported and shows the messages you receive if you try to use something that is not supported.

## Definition Statements

If you use these keywords on definition statements:

- LOGAPPL
- VRTG
- VRTGCPCP
- DLURNAME

- SRCOUNT
- SRTIMER
- CMPAPPLI
- CMPAPPLO

these messages are issued:

```
IST322I CONFIGURATION configname ERROR IGNORED - INVALID PARAMETER
IST323I LABEL= labelname - MACRO TYPE = macrotype - KEYWORD = keyword
IST314I END
```

If you use the DISCNT=DELAY keyword, these messages are issued:

```
IST322I CONFIGURATION configname ERROR IGNORED - INVALID VALUE
IST323I LABEL= labelname - MACRO TYPE = macrotype - KEYWORD = DISCNT
IST314I END
```

If you use these definition statements:

- CDRM
- NCP
- LUGROUP

this message is issued:

```
IST1330I type CANNOT BE ACTIVATED FROM THIS NODE
```

## Commands

If you use these operands on the MODIFY RESOURCE command:

- DISCNTIM
- SRCLEAR
- SRCOUNT
- SRTIMER

If you use these operands on the VARY ACT command:

- LOGON
- VRTGCPCP

this message is issued:

```
IST452I parameter PARAMETER EXTRANEIOUS
```

If you use the SAVE=YES operand on the MODIFY TRACE command, this message is issued:

```
IST453I parameter PARAMETER VALUE INVALID
```

If you issue these commands:

- MODIFY USERVAR
- VARY LOGON
- MODIFY COMPRESS

this message is issued:

```
IST039I command FAILED - CANNOT IDENTIFY COMMAND TYPE
```

### Start Options

If you use these start options:

- AUTOTI
- AUTORTRY
- BN
- BNDYN
- BNORD
- SNVC
- CDSERVER
- GWSSCP
- IOPURGE
- VRTG
- VRTGCPCP
- SRCHRED
- SRCOUNT
- SRTIMER
- CMPVTAM
- CMPMIPS
- DISCNTIM

this message is issued:

```
IST448I option OPTION IGNORED - NO LONGER SUPPORTED
```

### Messages IST663I and IST985I

Message IST663I runame REQUEST FAILED, SENSE=1003000 indicates that this VTAM package does not support dependent LU servers or requesters.

Message IST985I USER EXIT exitname option FAILED - CODE 2F indicates that this package supports only the session accounting exit routine and the session authorization exit routine. This package does not support other installation-wide exit routines.

### Persistent Session Support

When an application program opens its application control block (ACB) with a request for persistent sessions, VTAM allows the ACB to open, but VTAM ignores the request for persistence. VTAM updates the application managements services vector list (AMSVL) for the application program to indicate that VTAM does not support persistent sessions when running VTAM Client/Server.

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### VTAM MultiDomain Functions

If your network includes more than one domain, we recommend you consider VTAM MultiDomain. VTAM MultiDomain allows VTAM to own an NCP and gives you APPN and subarea functions not available in VTAM Client/Server.

VTAM MultiDomain includes all of the functions listed under "VTAM Client/Server Functions" on page 2, in addition to the functions listed here.

### Connectivity

- To channels
  - Channel-to-channel
  - Multipath channels
  - IBM 3088 Channel Multiplexor
- To NCP
  - Multilink transmission groups between NCPs

### Installation-Wide Exit Routines

- Session management exit routine
- Virtual route selection exit routine
- Virtual route pacing window size calculation exit routine
- Configuration services exchange identification (XID) exit routine
- Selection of definitions for dependent LUs (SDDL) exit routine
- Command verification exit routine
- USERVAR exit routine
- Directory services management exit routine

### Network Dynamics

- APPN
  - Composite network node routing
  - Interchange node (full function)
  - Migration data host node (full function)
- Definition of spare SDLC lines
- Dynamic adjacent SSCP tables
- Dynamic definition of dependent LUs
- Dynamic switched definition facility
- User variables (USERVAR)

### Performance Enhancements

- Automatic logon
- Automatic recovery from an outstanding session request (IOPURGE)
- Delayed disconnection
- Software data compression
- Enhanced software and hardware data compression (added for VSE)
- Non-disruptive deactivation of cross-domain resource managers

### Problem Diagnosis

- Saving the TRACE command for future use

### SNA Subarea

- Cross-domain resource manager
- Ownership of one or more NCPs

## System and Configuration Management

- Adjacent SSCP lists for cross-domain resources
- Dependent LU server
- Dependent LU requester code for OS/2\*
- Support for frame relay networks over token ring connections
- Virtual-route-based transmission groups

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## VTAM MultiDomain Restrictions

In VTAM MultiDomain, some keywords, start options, and operands on commands are not supported. This section lists what is not supported and shows the messages you receive if you try to use something that is not supported.

### Definition Statements

If you use these keywords on definition statements:

- SRCOUNT
- SRTIMER

these messages are issued:

```
IST322I CONFIGURATION configname ERROR IGNORED - INVALID PARAMETER
IST323I LABEL= labelname - MACRO TYPE = macrotype - KEYWORD = keyword
IST314I END
```

If you use these operands on the MODIFY RESOURCE command:

- SRCLEAR
- SRCOUNT
- SRTIMER

this message is issued:

```
IST452I parameter PARAMETER EXTRANEIOUS
```

### Start Options

If you use these start options:

- BN
- BNDYN
- BNORD
- SNVC
- CDSERVR
- GWSSCP
- SRCHRED
- SRCOUNT
- SRTIMER

this message is issued:

```
IST448I option OPTION IGNORED - NO LONGER SUPPORTED
```

## Persistent Session Support

When an application program opens its application control block (ACB) with a request for persistent sessions, VTAM allows the ACB to open, but VTAM ignores the request for persistence. VTAM updates the application managements services vector list (AMSVL) for the application program to indicate that VTAM does not support persistent sessions when running VTAM MultiDomain.

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## VTAM InterEnterprise Functions

If you need interconnection to other networks, VTAM InterEnterprise gives you the functions required for cross-network communication. VTAM InterEnterprise lets you connect to other networks with border nodes and SNA network interconnection (added for VM).

VTAM InterEnterprise includes all of the functions listed under "VTAM Client/Server Functions" on page 2 and "VTAM MultiDomain Functions" on page 4, in addition to the functions listed here.

### Network Dynamics

- APPN
  - Central directory server
  - Eliminating and reducing searches for unavailable resources
  - Multiple network connectivity (border node)

### Record Application Program Interface (API) Enhancements

- Persistent LU-LU sessions (added for VSE)

### SNA Subarea

- SNA network interconnection (added for VM)



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