

# ***VISTA* CHALLENGE**

## **SOFTWARE DESIGN DOCUMENT (SDD)**



**Draft**

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Department of Veterans Affairs  
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## Revision History

Date	Revision	Description	Author
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1/27/2005	1.1	Edits to content, punctuation, and grammar.	, Bay Pines, OIFO
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## Revision History

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# 1. Introduction

This is the Software Design Document (SDD) for the **VISTA** Challenge project, Kernel Patch XU\*8\*345.

The Veteran Health Administration (VHA) **VISTA** Maintenance Challenge was a contest issued by Health Systems Implementation Training and Enterprise Support (HSITES) via FORUM to all Department of Veterans Affairs (VA) field facilities. Its goal was to solicit functionality for streamlining and increasing efficiency in maintaining Veterans Health Information Systems and Technology Architecture (**VISTA**) systems at Veterans Affairs Medical Centers (VAMC). The following two proposals were initially selected as **VISTA** Challenge winners for implementation:

1. The **VISTA** Auto Patch Utility (VAPU) is Class III software created to automate the Kernel Installation and Distribution System (KIDS) installation steps. This gives VAMCs the ability to automate patch installations.
2. The master servant patching system is Class III software that allows site support personnel to patch multiple sites remotely.

As work progressed on the **VISTA** Auto Patch Utility, the proposal submitters continued their discussions and it became clear that they wanted to advance not only VAPU and the master servant patching system, but an enhanced version of that combination. This Software Design Document (SDD) addresses the enhanced combination of both **VISTA** Challenge proposals. Health Systems Design & Development (HSD&D) Infrastructure & Security Services (ISS) is reclassifying this software as Class I and releasing it nationally in Kernel Patch XU\*8\*345.

## 1.1. Purpose

The purpose of this design document is to outline in detail the logic, flow control, and data structures needed to implement the requirements set forth in the **VISTA** Challenge project Software Requirements Specification (SRS).

The Class III software application has been delivered to Health Systems Design and Development (HSD&D) for incorporation into the Class I **VISTA** Infrastructure & Security Services (ISS) suite of applications.

The intended audience for this documentation is all key stakeholders. The primary stakeholder is Infrastructure & Security Service (ISS). Additional stakeholders include HSITES, Development & Infrastructure Support (DaIS), Health Systems Design and Development (HSD&D), all **VISTA** sites, and VAMCs.

## 1.2. Scope



The goal of this project is to reclassify the software from Class III to Class I, and deliver it to HSITES for field testing, implementation, and training.

## 1.3. Definitions and Acronyms

### 1.3.1. Definitions

Term	Description
API	<b>VISTA</b> Application Program Interfaces (APIs) are units of programming code provided by a custodial development domain to permit developers outside the custodial domain to accomplish a specified purpose. APIs in <b>VISTA</b> may be defined as extrinsic functions, extrinsic special variables, or label references to routines. They allow programmers to carry out standard computing activities without needing to duplicate utilities in their own software. APIs also further DBA goals of system integration by channeling activities, such as adding new users, through a limited number of callable entry points.
Autoinstall	This is a required field, DO NOT AUTOINSTALL (#9), in the VAPU INSTALL MODIFIERS FILE (#9.74). It tells the <b>VISTA</b> Auto Patch Utility if a patch can be processed automatically. It also provides for some interaction between the Patch Release message so the VAPU knows when a task is ready to process.
Class III Software	<b>VISTA</b> software that is not released nationally through Enterprise <b>VISTA</b> Support (EVS) and not publicly available through the Freedom of Information Act (FOIA).
Data Dictionary (DD)	The <b>Data Dictionary</b> is a global containing a description of what kind of data is stored in the global corresponding to a particular file. The data is used internally by VA FileMan for interpreting and processing files.  A Data Dictionary contains the definitions of a file's elements (fields or data attributes), relationships to other files, and structure or design. Users generally review the definitions of a file's elements or data attributes; programmers review the definitions of a file's internal structure.
FORUM	The central E-mail system within <b>VISTA</b> . It is used by developers to communicate at a national level about programming and other issues. FORUM is located at the Chief Information Office (CIO) Field Office—Washington, DC (162-2).
Install Modifier (or Installation Modification)	The <b>VISTA</b> Auto Patch Utility employs an Install Modifier concept that works in conjunction with KIDS. Receipt of an Install Modifier from the National Patch Distribution System is what tells VAPU the conditions it is to perform an Install. These conditions are controlled the in the VAPU INSTALL MODIFIERS file (#9.74) for a <b>VISTA</b> package. For a host file distribution, the Install Modifier tells VAPU the KIDS host file distribution name. Once it knows the name, VAPU knows to go retrieve the .KID file from National File Transfer Protocol (FTP) software sites.
Kernel	Set of <b>VISTA</b> software routines that function as an intermediary between the host operating system and the <b>VISTA</b> application packages such as Laboratory, Pharmacy, etc. The Kernel provides a standard and consistent user and programmer interface between application packages and the underlying M implementation.
M (ANSI Standard)	A programming language recognized by the <b>American National Standards Institute (ANSI)</b> . The acronym M (formerly MUMPS) stands for <b>Massachusetts General Hospital Utility Multi-programming System</b> .



Term	Description
MailMan	<b>VISTA</b> software that provides a mechanism for handling electronic communication, whether it's user-oriented mail messages, automatic firing of bulletins or initiation of server-handled data transmissions.
Master Site	Master Sites send the MailMan messages (i.e., containing patch installations) to Servant Sites for remote auto-installation.
Namespacing	Convention for naming <b>VISTA</b> package elements. The database administrator (DBA) assigns unique character strings for package developers to use in naming routines, options, and other package elements so that packages may coexist. The DBA also assigns a separate range of file numbers to each package.
Option	An entry in the OPTION file (#19). As an item on a menu, an option provides an opportunity for users to select it, thereby invoking the associated computing activity. Options may also be scheduled to run in the background, non-interactively, by Task Manager.
Package Modifier (or Package Modification)	<p>This refers to conditions controlled in the VAPU PACKAGE MODIFIERS file (#9.75). This file can be edited by support site personnel, allowing them to modify install parameters to suit their specific needs. The EDIT VAPU PACKAGE MODIFIERS option allows sites to set default install or package modifier parameters in this file for any <b>VISTA</b> package used in the event an Install Modifier has not been received.</p> <p> For a definition of the term "Install Modifier," see the section titled "Definitions and Acronyms" in this documentation.</p>
Remote Members	<p>Remote members constitute:</p> <ul style="list-style-type: none"> <li>MailMan domains entered in the G. PATCHES mail group that a site wants to auto-patch using VAPU (e.g., DOMAIN.EXT). The mail group must be entered in the parent domain REMOTE MEMBER list for any sub-domain that the site wants auto-patched.</li> </ul> <p> Sites enter remote members using the VAPU option EDIT G.PATCH REMOTE MEMBERS.</p> <ul style="list-style-type: none"> <li>The server option S.XPDAUTO must be entered as a remote member (e.g., REMOTE MEMBER: DOMAIN.EXT) in order to activate the <b>VISTA</b> Auto Patch Utility. In addition to this, the server option must also be entered as a remote member for each MailMan domain you wish to auto-patch.</li> </ul>
Routine	Program or a sequence of instructions called by a program that may have some general or frequent use. M (previously referred to as MUMPS) routines are groups of program lines, which are saved, loaded, and called as a single unit via a specific name.
Security Key	The purpose of Security Keys is to set a layer of protection on the range of computing capabilities available with a particular software package. The availability of options is based on the level of system access granted to each user.
Servant Site	Servant Sites receive the MailMan messages containing patch installations

Term	Description
	sent by the Master Site for remote auto-installation.
Template	Means of storing report formats, data entry formats, and sorted entry sequences. A template is a permanent place to store selected fields for use later. Edit sequences are stored in the INPUT TEMPLATE file (#.402), print specifications are stored in the PRINT TEMPLATE file (#.4), and search or sort specifications are stored in the SORT TEMPLATE file (#.401).
Variable	Character or group of characters, that refers to a value. M (previously referred to as MUMPS) recognizes three types of variables: local variables, global variables, and special variables. Local variables exist in a partition of main memory and disappear at sign-off. A global variable is stored on disk, potentially available to any user. Global variables usually exist as parts of global arrays. The term "global" may refer to either a global variable or a global array. A special variable is defined by systems operations (e.g., \$TEST).
VHA <b>VISTA</b> Challenge	Contest issued by Health Systems Implementation Training and Enterprise Support (HSITES) via FORUM to all Department of Veterans Affairs (VA) field facilities. Its goal was to solicit functionality for streamlining and increasing efficiency in maintaining Veterans Health Information Systems and Technology Architecture ( <b>VISTA</b> ) systems at Veterans Affairs Medical Centers (VAMC). Two proposals were selected as winners for implementation: the <b>VISTA</b> Auto Patch Utility and the master servant patching system.  VAPU was developed by VA DEVELOPER, from the Central Alabama Veterans Health Care System (CAVHCS), as a Class III software application. The master servant patching system was developed by Dennis Follensbee. Infrastructure & Security Services (ISS) is reclassifying this software as Class I and releasing it nationally in Kernel Patch XU*8*345.
<b>VISTA</b>	<b>V</b> eterans Health <b>I</b> nformation <b>S</b> ystems and <b>T</b> echnology <b>A</b> rchitecture ( <b>VISTA</b> ) of the Veterans Health Administration (VHA), Department of Veterans Affairs (VA). <b>VISTA</b> software, developed by VA, is used to support clinical and administrative functions at VA Medical Centers nationwide. It is written in M, and, via the Kernel runs on all major M implementations regardless of vendor. <b>VISTA</b> is composed of packages, which undergo a verification process to ensure conformity with namespacing and other <b>VISTA</b> standards and conventions.
<b>VISTA</b> Auto Patch Utility (VAPU)	Class III software developed in response to the VHA <b>VISTA</b> Challenge, reclassified as Class I and released nationally as Kernel Patch XU*8*345. The <b>VISTA</b> Auto Patch Utility software automates the Kernel Installation and Distribution System (KIDS) installation steps, giving the VAMCs the ability to automate patch installations.

### 1.3.2. Acronyms

<b>Acronyms</b>	<b>Description</b>
CAVHCS	<b>C</b> entral <b>A</b> labama <b>V</b> eterans <b>H</b> ealth <b>C</b> are <b>S</b> ystem
CIO	<b>C</b> hief <b>I</b> nformation <b>O</b> ffice
DaIS	<b>D</b> evelopment & <b>I</b> nfrastructure <b>S</b> upport
EVS	<b>E</b> nterprise <b>V</b> ISTA <b>S</b> upport
FTP	<b>F</b> ile <b>T</b> ransfer <b>P</b> rotocol
HSD&D	<b>H</b> ealth <b>S</b> ystems <b>D</b> esign & <b>D</b> evelopment
HSITES	<b>H</b> ealth <b>S</b> ystems <b>I</b> mplementation <b>T</b> raining and <b>E</b> nterprise <b>S</b> upport
IEN	<b>I</b> nternal <b>E</b> ntry <b>N</b> umber
ISS	<b>I</b> nfrastructure & <b>S</b> ecurity <b>S</b> ervices
KIDS	<b>K</b> ernel <b>I</b> nstallation and <b>D</b> istribution <b>S</b> ystem
OIFO	<b>O</b> ffice of <b>I</b> nformation <b>F</b> ield <b>O</b> ffice
OS	<b>O</b> perating <b>S</b> ystem
SDD	<b>S</b> oftware <b>D</b> esign <b>D</b> ocument
SRS	<b>S</b> oftware <b>R</b> equirements <b>S</b> pecification
TCP/IP	<b>T</b> ransmission <b>C</b> ontrol <b>P</b> rotocol/ <b>I</b> nternet <b>P</b> rotocol
VA	The Department of <b>V</b> eterans <b>A</b> ffairs, formerly called the Veterans Administration.
VAMC	<b>V</b> eterans <b>A</b> ffairs <b>M</b> edical <b>C</b> enter
VAPU	<b>V</b> ISTA <b>A</b> uto <b>P</b> atch <b>U</b> tility
VHA	<b>V</b> eterans <b>H</b> ealth <b>A</b> dministration
VISN	<b>V</b> eterans <b>I</b> ntegrated <b>S</b> ervice <b>N</b> etwork
<b>VISTA</b>	<b>V</b> eterans Health <b>I</b> nformation <b>S</b> ystems and <b>T</b> echnology <b>A</b> rchitecture

### 1.4. References

- **VISTA** Challenge—Initial Assessment and Briefing
- **VISTA** Challenge—Project Management Plan
- **VISTA** Challenge—Software Requirement Specification (SRS)



## 2. Specific Requirements

### 2.1. VISTA Challenge Patch Functionality

#### 2.1.1. VISTA Requirements

This software requires that both Test and Production accounts exist in a standard VISTA operating environment in order to function correctly. The account(s) must contain the *fully* patched versions of the following VISTA software:

- Kernel V. 8.0
- Kernel Toolkit V. 7.3
- VA MailMan V. 8.0
- VA FileMan V. 22.0

#### 2.1.2. Routines

##### 2.1.2.1. XPDA\*

Routine Name	Description
ENHANCEMENT CATEGORY	<p>Routines added with the release of the VISTA Challenge patch:</p> <ul style="list-style-type: none"><li>• XPDAFTP</li><li>• XPDAUTL</li><li>• XPDAUTO</li><li>• XPDAUTOM</li><li>• XPDAFTP2</li><li>• XPDAUTL2</li><li>• XPDAUTO2</li><li>• XPDAMSTR</li><li>• XPDAMENU</li><li>• XPDAPMES</li><li>• XPDAPROC</li><li>• XPDAPSVR</li><li>• XPDAPUTL</li></ul>

**2.1.2.2. XPD\* & XQ\***

Routine Name	Description
MAINTENANCE CATEGORY	Routines modified with the release of the <b>VISTA</b> Challenge patch: <ul style="list-style-type: none"> <li>• XPDDCS</li> <li>• XPDI1</li> <li>• XPDIL</li> <li>• XPDIPM</li> <li>• XQOO</li> <li>• XPDI</li> <li>• XPDIB</li> <li>• XPDIL1</li> <li>• XPDIQ</li> </ul>

**2.1.3. Modified Edit Template**

N/A

**2.1.4. Bulletins**

N/A

**2.1.5. Data Dictionaries (New VISTA Files Exported With Kernel Patch XU\*8\*345)**

The following new files will be added to the Kernel Installation and Distribution System (KIDS) software to support the VistA Challenge patch. These files will be placed in the XPD namespace:

- ^XPD(9.72 VAPU SITE PARAMETERS
- ^XPD(9.73 VAPU FTP SITES
- ^XPD(9.74 VAPU INSTALL MODIFIERS
- ^XPD(9.75 VAPU PACKAGE MODIFIERS
- ^XPD(9.76 VC MAIL MESSAGES
- ^XPD(9.77 VC PATCH BULLETIN TYPES
- ^XPD(9.78 VC PATCHING
- ^XPD(9.79 VC PATCHING SERVITUDE/MASTERSHIP

**2.1.5.1. VAPU SITE PARAMETERS File (#9.72)**

<b>ENHANCEMENT CATEGORY</b>	New
<b>RELATED OPTIONS</b>	
<b>DATA DICTIONARY REFERENCES</b>	VAPU SITE PARAMETERS file (#9.72)
<b>RELATED PROTOCOLS</b>	
<b>RELATED DATABASE INTEGRATION AGREEMENTS</b>	N/A

**2.1.5.2. VAPU FTP SITES File (#9.73)**

<b>ENHANCEMENT CATEGORY</b>	New
<b>RELATED OPTIONS</b>	
<b>DATA DICTIONARY REFERENCES</b>	VAPU FTP SITES file (#9.73)
<b>RELATED PROTOCOLS</b>	
<b>RELATED DATABASE INTEGRATION AGREEMENTS</b>	N/A

**2.1.5.3. VAPU INSTALL MODIFIERS File (#9.74)**

<b>ENHANCEMENT CATEGORY</b>	New
<b>RELATED OPTIONS</b>	
<b>DATA DICTIONARY REFERENCES</b>	VAPU INSTALL MODIFIERS file (#9.74)
<b>RELATED PROTOCOLS</b>	
<b>RELATED DATABASE INTEGRATION AGREEMENTS</b>	N/A

**2.1.5.4. VAPU PACKAGE MODIFIERS File (#9.75)**

<b>ENHANCEMENT CATEGORY</b>	New
<b>RELATED OPTIONS</b>	
<b>DATA DICTIONARY REFERENCES</b>	VAPU PACKAGE MODIFIERS file (#9.75)
<b>RELATED PROTOCOLS</b>	
<b>RELATED DATABASE INTEGRATION AGREEMENTS</b>	N/A

**2.1.5.5. VC MAIL MESSAGES File (#9.76)**

<b>ENHANCEMENT CATEGORY</b>	New
<b>RELATED OPTIONS</b>	
<b>DATA DICTIONARY REFERENCES</b>	VC MAIL MESSAGES file (#9.76)
<b>RELATED PROTOCOLS</b>	
<b>RELATED DATABASE INTEGRATION AGREEMENTS</b>	N/A

**2.1.5.6. VC PATCH BULLETIN TYPES File (#9.77)**

<b>ENHANCEMENT CATEGORY</b>	New
<b>RELATED OPTIONS</b>	
<b>DATA DICTIONARY REFERENCES</b>	VC PATCH BULLETIN TYPES file (#9.77)
<b>RELATED PROTOCOLS</b>	
<b>RELATED DATABASE INTEGRATION AGREEMENTS</b>	N/A



**2.1.5.7. VC PATCHING File (#9.78)**

<b>ENHANCEMENT CATEGORY</b>	New
<b>RELATED OPTIONS</b>	
<b>DATA DICTIONARY REFERENCES</b>	VC PATCHING file (#9.78)
<b>RELATED PROTOCOLS</b>	
<b>RELATED DATABASE INTEGRATION AGREEMENTS</b>	N/A

**2.1.5.8. VC PATCHING SERVITUDE/MASTERSHIP File (#9.79)**

<b>ENHANCEMENT CATEGORY</b>	New
<b>RELATED OPTIONS</b>	
<b>DATA DICTIONARY REFERENCES</b>	VC PATCHING SERVITUDE/MASTERSHIP file (#9.79)
<b>RELATED PROTOCOLS</b>	
<b>RELATED DATABASE INTEGRATION AGREEMENTS</b>	N/A

### 2.1.6. Data Dictionaries (Partial DDs exported with XU\*8\*345 for Existing *VISTA* Files)

#### 2.1.6.1. PACKAGE File (#9.4)

<b>ENHANCEMENT CATEGORY</b>	Modify
<b>RELATED OPTIONS</b>	
<b>DATA DICTIONARY REFERENCES</b>	PACKAGE file (#9.4)
<b>RELATED PROTOCOLS</b>	
<b>RELATED DATABASE INTEGRATION AGREEMENTS</b>	N/A

#### 2.1.5.6.1 New Field

A new field will be added to the PACKAGE file (#9.4) indicating if the patch can be automatically installed for a particular package for a site. The default field value is “Manual” installation for backwards compatibility.

#### 2.1.6.2. BUILD File (#9.6)

<b>ENHANCEMENT CATEGORY</b>	Modify
<b>RELATED OPTIONS</b>	
<b>DATA DICTIONARY REFERENCES</b>	BUILD file (#9.6)
<b>RELATED PROTOCOLS</b>	
<b>RELATED DATABASE INTEGRATION AGREEMENTS</b>	N/A

#### 2.1.5.5.1 New field

A new field will be added to the BUILD file (#9.6) indicating if the patch needs to be manually installed or if it can be auto-installed. The default field value is set to “Manual” installation for backwards compatibility.

**2.1.6.3. INSTALL File (#9.7)**

<b>ENHANCEMENT CATEGORY</b>	Modify
<b>RELATED OPTIONS</b>	
<b>DATA DICTIONARY REFERENCES</b>	INSTALL file (#9.7)
<b>RELATED PROTOCOLS</b>	
<b>RELATED DATABASE INTEGRATION AGREEMENTS</b>	N/A

**2.1.5.5.1 New field**

New fields will be added to the INSTALL file (#9.7) indicating if the patch was entered in error and if the patch is Informational.

**2.1.7. Mail Groups**

N/A.

**2.1.8. Security Keys**

N/A.

**2.1.9. Options**

The options exported as part of the **VISTA** Challenge, Kernel Patch XU\*8\*345, are listed in the following two categories. The first category lists and describes the options that constitute the **VISTA** Auto Patch Utility. The second category lists and describes the options that constitute the master servant patching system software (also referred to as **VISTA** remote patching).

**Category I**—The following option list comprises the **VISTA** Auto Patch Utility software component portion of Patch XU\*8\*345.

**2.1.9.1. VAPU Main Menu [XPDA VAPU MAIN MENU]**

This is the main menu for the **VISTA** Auto Patch Utility.

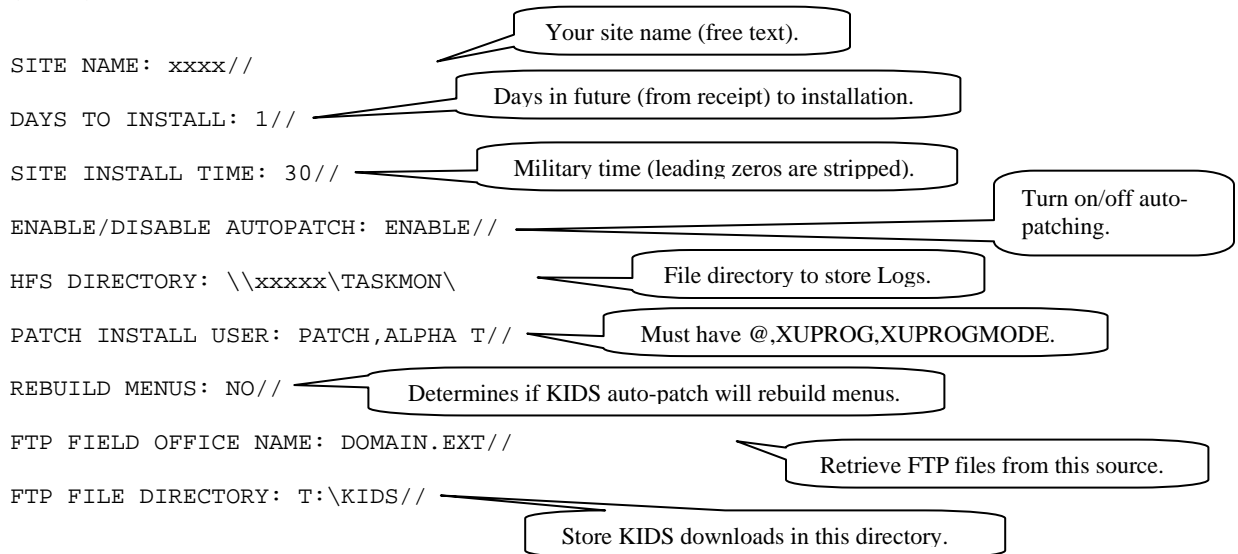
**2.1.9.2. Edit VAPU Site Parameters [XPDA VAPU SITE PARAMETERS]**

Use this option to set up your site parameters for auto-patching. This is the first of three files that you can edit to adjust your baseline parameters. This is the only required parameter setup. The other two files: PACKAGE (#9.4) and VAPU PACKAGE MODIFIERS (#9.75) are provided to allow the site to modify install parameters to suit their specific needs.

For example, the PACKAGE file (#9.4) can be edited to stop a particular package from being auto-patched. The VAPU PACKAGE MODIFIERS file (#9.75) can be edited to notify the **VISTA**

Auto Patch Utility which (if any) background processes need to be stopped prior to the installation of patches for a given package, by default. This is explained in detail in menu edit options (Edit VAPU Package Modifiers [XPDA VAPU EDIT PKG MODS] and Edit VAPU Install Modifiers [XPDA VAPU EDIT INSTALL MODS]) for those respective files.

Use this option to edit the following site parameters in the VAPU SITE PARAMETERS FILE (#9.72):



### 2.1.9.3. Edit G.PATCH Remote Members [XPDA VAPU ADD SERVER TO GROUP]

This EDIT G.PATCH REMOTE MEMBERS option allows you to update the remote members of the mail group.



For a definition of the term "remote members," see the section titled "Definitions and Acronyms" in this documentation.

As a first step to activating the **VISTA** Auto Patch Utility, you must add the S.XPDAUTO server option as a remote member.



The second step to activating VAPU is that the site must set the ENABLE/DISABLE AUTOPATCH field (#4) in the VAPU SITE PARAMETERS file (#9.72). This is done using the VAPU option ENABLE/DISABLE AUTO PATCHING BY PACKAGE.

S.XPDAUTO must be entered as a remote member for each MailMan domain you wish to auto-patch using the VAPU. Additionally, you must enter G.PATCHES@<REMOTE DOMAIN> for each MailMan domain your production server relays messages to. For example, Central-Alabama is a merged (or integrated) facility. The production domain serves (or relays) messages for Tuskegee and Test domains. The following is an example of a production domain and its relationship to Tuskegee and Test domains through the G.PATCHES Mail Group:

```
DOMAIN.EXT
REMOTE MEMBER: G.PATCHES@DOMAIN.EXT
REMOTE MEMBER: G.PATCHES@DOMAIN.EXT
REMOTE MEMBER: S.XPDAUTO@DOMAIN.EXT
```

Production system  
G.PATCHES remote  
members.

```
TEST.CENTRAL-DOMAIN.EXT
REMOTE MEMBER: S.XPDAUTO@DOMAIN.EXT
```

Test system  
G.PATCHES  
remote member.

```
REMOTE MEMBER: S.XPDAUTO@DOMAIN.EXT
```

Legacy system G.PATCHES  
remote member.

#### 2.1.9.4. Edit VAPU Package Modifiers [XPDA VAPU EDIT PKG MODS]

This option allows a user to set default install or Package Modifier parameters for any VISTA package that will be used in the event an Install Modifier has not been received.



For a definition of the terms "Package Modifier" and "Install Modifier," see the section titled "**Definitions and Acronyms**" in this documentation.

The tasks that the Package Modifier controls are as follows:

```
Select VISTA AUTOPATCH PACKAGE MODIFIERS PACKAGE NAME: SURGERY
  PACKAGE NAME: SURGERY//
  STOP TASKMAN:
  STOP HL7: NO//
  STOP MAILMAN: NO//
  STOP BROKER: NO//
  INHIBIT LOGONS: NO//
  FTP DISTRIBUTION NAME:
  Select PROTOCOLS TO DISABLE:
  Select OPTIONS TO DISABLE:
  TAKE OPTIONS/PROTOCOLS OFFLINE:
```

By answering Yes to any of these items, the respective task will be performed prior to the auto-installation of the patch. Once the install is complete, the task is reversed. For example, if you set the prompt "STOP TASKMAN" to Yes, TaskManager will be stopped prior to the auto-installation of the patch. Once the installation is complete, TaskManager will be restarted.



```
Select PROTOCOLS TO DISABLE:
Select OPTIONS TO DISABLE:
TAKE OPTIONS/PROTOCOLS OFFLINE:
```

These fields work together and in conjunction with install modifiers. For example, if the prompt "TAKE OPTIONS/PROTOCOLS OFFLINE" were set to Yes and the patch being auto-installed contained options and protocols, in this scenario the VAPU would take the options and protocols offline prior to the auto-installation (Autoinstall) of the patch. Once the auto-installation is complete, the VAPU automatically brings the options and protocols back online. If, in this same scenario, you receive an Install Modifier for a patch belonging to this same package, all options and protocols from the Install and Package Modifiers are taken offline prior to the auto-

installation of the patch. Once the auto-installation is complete, the VAPU automatically brings them back online.



For a definition of the term "Autoinstall," see the section titled "**Definitions and Acronyms**" in this documentation.



With the exception of OPTION/PROTOCOL handling, the install modification process takes precedence over the package modification set if an Install Modifier is received prior to the auto-installation of the patch.

### **2.1.9.5. Edit VAPU Install Modifiers [XPDA VAPU EDIT INSTALL MODS]**

Any given **VISTA** patch installation can be modified with this hereto-mentioned install modification. As of the release of the **VISTA** Challenge, Kernel Patch XU\*8\*345, it is the responsibility of Office of Information Field Office (OIFO) personnel to make the necessary edits to the VAPU INSTALL MODIFIERS FILE (#9.74), creating installation modifications for patches as necessary. Based on the contents of File #9.74, once the **VISTA** Auto Patch Utility receives the installation modification, it sets up the parameters for the installation. Modifications to installations take precedence over package modifications, with the exception of options and protocols defined as needing to be taken offline. These options and protocols are taken offline during the auto-installation. The installation modification process is patch-specific, whereas package modification is more general and applies to all **VISTA** patches for a package.

The significant differences between the VAPU installation modification and package modification process is that installation modification can flag a patch as either Entered In Error or Do Not Autoinstall. There are times when patches are released and an issue arises that may warrant having the patch recalled.



**Although VAPU won't install a patch flagged as Entered in Error, it doesn't prevent someone from installing it manually.**

The next most important thing the installation modification process does is it allows site support personnel to flag an install as Manual. Patches flagged as Manual will not be installed automatically by the Autoinstall process. The Autoinstall process records the MailMan message IEN and any KIDS distribution host file information to assist site support personnel performing the manual installation. Manual installations are enhanced.



For more information on Manual installations, see the section titled "Install A Patch Manually [XPDA VAPU MANUAL INSTALL]" in this document.

As discussed to in the previous paragraph, the KIDS distribution host file information is recorded. Site support personnel do this by issuing an Install Modifier with the FTP DISTRIBUTION FILENAME field (#6) in File #9.74 filled in.

Use this option to edit the following fields in the VAPU INSTALL MODIFIERS FILE (#9.74):

```
INSTALL NAME: YS*5.01*76//
SEQUENCE #: 66//
AUTOINSTALL (Yes/No): No//
STOP TASKMAN (Yes/No):
STOP HL7:
STOP MAILMAN:
STOP BROKER:
INHIBIT LOGONS:
TAKE OPTIONS/PROTOCOLS OFFLINE:
Select PROTOCOLS TO DISABLE:
Select OPTIONS TO DISABLE:
FTP DISTRIBUTION FILENAME: YS_501_76.KID//
ENTERED IN ERROR FLAG: NO//
```

### 2.1.9.6. Send Install Modifiers [XPDA VAPU SEND MODIFIERS]

This option encapsulates Install Modifiers in a MailMan message to sites for distribution such that the VAPU receives Office of Information Field Office (OIFO) instructions automatically, similar to if it were a patch. In order to achieve this, the site must set the KIDS MAILMAN DISTRIBUTION IEN field (#12) in the VAPU INSTALL MODIFIERS FILE (#9.74) to point to the MESSAGE FILE (#3.9, which sends all patches to each site's G.PATCHES mail group.

### 2.1.9.7. Enable/Disable Auto Patching By Package [XPDA VAPU ENABLE/DISABLE PKG]

If you want the VAPU to Autoinstall patches for a given package, use this option to enable the package for auto-patching. This option edits the PACKAGE file (#9.4), setting the AUTOPATCH ENABLE/DISABLE field (#619000) to the value of 0 (ENABLED) or 1 (DISABLED) based on user input. The VAPU checks this field prior to installing each patch.



**By default, all packages are exported with the AUTOPATCH ENABLE/DISABLE field (#619000) set to DISABLED for auto-patching.**

### 2.1.9.8. Install A Patch Manually [XPDA VAPU MANUAL INSTALL]

Some patches just can't be installed automatically. The VAPU assists users by consolidating the tasks in an interactive nature. Just follow the prompts in this option and answer the questions.

### 2.1.9.9. Edit Exe Location [XPDA VAPU EDIT EXE LOCATION]

VAPU performs operating system (OS) level commands to execute FTP service and retrieve files. In order to do this VAPU needs the following information:

- For VMS sites, VAPU needs the batch queue name. For example, Charleston's test system batch queue is 534T02\$BATCH. Each site and each system will have a different name in order to be patched. If you do not have a batch queue, your VMS manager will need to set one up for this portion of VAPU to work.

- For Caché/NT sites, you will need the full path of the Caché volume for the system being auto-patched.



- Most Caché production systems are: Y:\ROU\  
• Most Caché test systems are: Y:\TST\

#### **2.1.9.10. Manage Installation Queues [XPDA VAPU MNG PATCH INST QUE]**

This option provides tools for you manage the install queues.

#### **2.1.9.11. List VAPU'S Installation Tasks Description [XPDA VAPU LIST TASKS]**

Use this option to list VAPU tasks.

#### **2.1.9.12. Requeue VAPU'S Install Tasks XPDA [VAPU REQUEUE TASKS]**

Use this option to re-queue install tasks.

#### **2.1.9.13. Delete A Task In VAPU'S Install Queues [XPDA VAPU DELETE TASKS]**

This option is used to delete tasks in VAPU's install queues.

#### **2.1.9.14. Create Cache/NT Batch File For FTP [XPDA VAPU CREATE CACHE/NT FILE]**

Use this menu option to create the batch file that is used to retrieve KIDS FTP file distributions. The location the BAT file is placed is determined by the EXECUTABLE LOCATION field (#11) in the VAPU SITE PARAMETERS file (#9.72).



This location or Directory must have a path to the NT Environment in order to execute. On most Caché/NT Production Systems this is Y:\ROU\.

#### **2.1.9.15. Manage The Patch Install User Baskets [XPDA VAPU MNG BSKTS]**

Use this option to manage user's patch baskets.

#### **2.1.9.16. VAPU Server [XPDAUTO]**

This is the VAPU server option.

**Category II**—The following option list comprises the master servant patching system (VISTA remote patching) software component portion of the VISTA Challenge project, Kernel Patch XU\*8\*345.



#### **2.1.9.17. VistA Remote Patching Menu [XPDA PATCHING MENU]**

This is the main menu for **VISTA** remote patching.

#### **2.1.9.18. Designate a Patch Informational [XPDA DESIGNATE INFORMATIONAL]**

This option allows a servant site to flag Information patches so that the break in the patch numbering sequence won't stop the remote installation process.



For a definition of the term "servant site," see the section titled "**Definitions and Acronyms**" in this documentation.

#### **2.1.9.19. Establish Mastership Over a Site [XPDA MASTER - SERVANT ESTABLISH]**

Use this option to establish mastership patching rights over another remote site.

#### **2.1.9.20. Respond to a Mastership Request [XPDA MASTER - SERVANT RESPOND]**

Use this option to accept/decline a request from another site requesting to be your patching master site.



For a definition of the term "master site," see the section titled "**Definitions and Acronyms**" in this documentation.

#### **2.1.9.21. Install File Patch Listing Dump [XPDA PATCH LISTING]**

Use this option to display all patches listed in the INSTALL file (#9.7) to view the installation status of each patch.

#### **2.1.9.22. Report of Patches Installed (Master Sites) [XPDA PATCH REPORT]**

This report displays the list of patches installed to date.

#### **2.1.9.23. VistA Patch Server [XPDA PATCH SERVER]**

This is the **VISTA** package patch server.

#### **2.1.9.24. Check Patch Install Status (for servant sites) [XPDA PATCH STATUS]**

Use this option to view the local patch installation status.

#### **2.1.9.25. VistA Patching System Master Options [XPDA PATCHING MASTER]**

This is the menu for Master servers.

#### **2.1.9.26. VistA Patching System Servant Options [XPDA PATCHING SERVANT]**

These are the servant side of the patching options.

#### **2.1.9.27. Send Patch(es) to Servant(s) [XPDA SEND PATCH TO SERVANT]**

The master site uses this option to send patches to servant sites.

#### **2.1.9.28. Unstick The Processing Queue (Servants Only) [XPDA UNSTICK QUEUE]**

Use this option to restart the patch sequence when processing for a single patch is interrupted, to continue auto-processing.

### **2.1.10. Protocols**

N/A.

### **2.1.11. Remote Procedure Call (RPC)**

N/A.