

**Genesys Voice Platform 7.6** 

# Studio

# **Deployment Guide**

## The information contained herein is proprietary and confidential and cannot be disclosed or duplicated without the prior written consent of Genesys Telecommunications Laboratories, Inc.

Copyright © 2002–2008 Genesys Telecommunications Laboratories, Inc. All rights reserved.

#### **About Genesys**

Genesys Telecommunications Laboratories, Inc., a subsidiary of Alcatel-Lucent, is 100% focused on software for call centers. Genesys recognizes that better interactions drive better business and build company reputations. Customer service solutions from Genesys deliver on this promise for Global 2000 enterprises, government organizations, and telecommunications service providers across 80 countries, directing more than 100 million customer interactions every day. Sophisticated routing and reporting across voice, e-mail, and Web channels ensure that customers are quickly connected to the best available resource—the first time. Genesys offers solutions for customer service, help desks, order desks, collections, outbound telesales and service, and workforce management. Visit www.genesyslab.com for more information.

Each product has its own documentation for online viewing at the Genesys Technical Support website or on the Documentation Library DVD, which is available from Genesys upon request. For more information, contact your sales representative.

#### Notice

Although reasonable effort is made to ensure that the information in this document is complete and accurate at the time of release, Genesys Telecommunications Laboratories, Inc., cannot assume responsibility for any existing errors. Changes and/or corrections to the information contained in this document may be incorporated in future versions.

#### Your Responsibility for Your System's Security

You are responsible for the security of your system. Product administration to prevent unauthorized use is your responsibility. Your system administrator should read all documents provided with this product to fully understand the features available that reduce your risk of incurring charges for unlicensed use of Genesys products.

#### Trademarks

Genesys, the Genesys logo, and T-Server are registered trademarks of Genesys Telecommunications Laboratories, Inc. All other trademarks and trade names referred to in this document are the property of other companies. The Crystal monospace font is used by permission of Software Renovation Corporation, www.SoftwareRenovation.com.

#### **Technical Support from VARs**

If you have purchased support from a value-added reseller (VAR), please contact the VAR for technical support.

#### **Technical Support from Genesys**

If you have purchased support directly from Genesys, please contact Genesys Technical Support at the following regional numbers:

Region	Telephone	E-Mail
North and Latin America	+888-369-5555 or +506-674-6767	support@genesyslab.com
Europe, Middle East, and Africa	+44-(0)-118-974-7002	support@genesyslab.co.uk
Asia Pacific	+61-7-3368-6868	<u>support@genesyslab.com.au</u>
Japan	+81-3-6361-8950	<u>support@genesyslab.co.jp</u>

Prior to contacting technical support, please refer to the *Genesys Technical Support Guide* for complete contact information and procedures.

#### **Ordering and Licensing Information**

Complete information on ordering and licensing Genesys products can be found in the Genesys 7 Licensing Guide.

#### Released by

Genesys Telecommunications Laboratories, Inc. <u>www.genesyslab.com</u> **Document Version:** 76gvp\_dep\_studio\_02-2008\_v7.6.001.00



# **Table of Contents**

	List of Procedures	5
Preface		7
	New in This Release	7
	Intended Audience	
	Chapter Summaries	
	Document Conventions	8
	Related Resources	
	Making Comments on This Document	11
Chapter 1	Installation	13
	Software Requirements	
	Operating Systems Supported	
	Genesys Platforms Supported	
	Database Servers Supported	
	Speech Engines Supported	
	ODBC Drivers Supported	
	Application Servers Supported	
	Web Browsers	
	Installing Studio	15
	Enabling Studio Simulation Mode (GVP: DE only)	
	Post-Installation Configuration	
	Windows 2003 POST Limit	
	Firewall Considerations	
	Oracle Configuration	
	Windows 2003 MIME Types	
	OSDM 2.0 Configuration	
Chapter 2	Uninstallation	23
	Uninstalling Studio	
Index		25

Table of Contents



# **List of Procedures**

Installing Studio
Launching Studio
Setting permissions 17
Configuring IIS for ASP application development
Creating Studio virtual directories under 9810 listener
Changing the Windows 2003 POST limit setting 20
Ensuring TCP ports have been opened 20
Granting read/execute permission for Oracle
Adding MIME Types in IIS 6.0
Configuring OSDM 2.0
Uninstalling Studio

List of Procedures



# Preface

Welcome to the *Genesys Voice Platform 7.6 Studio Deployment Guide*. This document explains how to install and configure Studio. For an introduction to, and details about the component features, see the Studio Help file that is included with the software, as well as the *Genesys Voice Platform 7.6 Voice Application Reporter Deployment and Reference Manual*.

This document is valid only for the 7.6 release of this product.

**Note:** For releases of this document created for other releases of this product, please visit the Genesys Technical Support website, or request the Documentation Library CD, which you can order by e-mail from Genesys Order Management at orderman@genesyslab.com.

This preface provides an overview of this document, identifies the primary audience, introduces document conventions, and lists related reference information: It contains the following sections:

- New in This Release, page 7
- Intended Audience, page 8
- Chapter Summaries, page 8
- Document Conventions, page 8
- Related Resources, page 10
- Making Comments on This Document, page 11

Studio is a graphical user interface (GUI) for the development of voice applications using Voice Extensible Markup Language (VoiceXML).

## **New in This Release**

The following features are now supported:

• Studio 7.6 can now access the SIP P-Asserted-Identity field from the VoiceXML session object in the Start Block, provided that the corresponding parameter is configured in GVP 7.6 IP Communication Server.

- Studio 7.6 can now access the SIP Call ID from GVP 7.6 as a VoiceXML session object in the Start Block, which is available as a Global GCT variable, provided that GVP 7.6 supplies the SIP Call ID as VoiceXML session object.
- Studio 7.6 now supports bi-directional IP call recording as supported by GVP 7.6.
- New audio formats have been added to the Record and StartTrxnRecording blocks.

## **Intended Audience**

This document is primarily intended for system integrators and administrators and assumes that you have a basic understanding of:

- Computer-telephony integration (CTI) concepts, processes, terminology, and applications.
- Network design and operation.
- Your own network configurations.

You should also be familiar with the Genesys Framework architecture.

In order to use the Studio software successfully, you should be familiar with Hypertext Markup Language (HTML), Extensible Markup Language (XML), and VoiceXML concepts

## **Chapter Summaries**

In addition to this preface, this document contains the following chapters:

- Chapter 1, "Installation," on page 13, provides the operating requirements and installation instructions for Studio.
- Chapter 2, "Uninstallation," on page 23, provides uninstallation instructions for Studio.

## **Document Conventions**

This document uses some stylistic and typographical conventions—introduced here—that serve as shorthand for particular kinds of information.

## **Document Version Number**

A version number appears at the bottom of the inside front cover of this document. Version numbers change as new information is added to this document. Here is a sample version number:

72gvp\_dep\_studio\_02-2006\_v7.2.000.00

You will need this number when you are talking with Genesys Technical Support about this product.

## **Type Styles**

#### Italic

In this document, italic is used for emphasis, for documents' titles, for definitions of (or first references to) unfamiliar terms, and for mathematical variables.

- **Examples:** Please consult the *Genesys 7 Migration Guide* for more information.
  - A customary and usual practice is one that is widely accepted and used within a particular industry or profession.
  - Do *not* use this value for this option.
  - The formula, x + 1 = 7 where x stands for . . .

#### **Monospace Font**

A monospace font, which looks like teletype or typewriter text, is used for all programming identifiers and GUI elements.

This convention includes the *names* of directories, files, folders, configuration objects, paths, scripts, dialog boxes, options, fields, text and list boxes, operational modes, all buttons (including radio buttons), check boxes, commands, tabs, CTI events, and error messages; the values of options; logical arguments and command syntax; and code samples.

#### **Examples:** • Select the Show variables on screen check box.

- Click the Summation button.
- In the Properties dialog box, enter the value for the host server in your environment.
- In the Operand text box, enter your formula.
- Click OK to exit the Properties dialog box.
- The following table presents the complete set of error messages T-Server distributes in EventError events.
- If you select true for the inbound-bsns-calls option, all established inbound calls on a local agent are considered business calls.

Monospace is also used for any text that users must manually enter during a configuration or installation procedure, or on a command line:

**Example:** • Enter exit on the command line.

### **Screen Captures Used in This Document**

Screen captures taken from the product GUI (graphical user interface), as used in this document, may sometimes contain a minor spelling, capitalization, or grammatical error. The text accompanying and explaining the screen captures corrects such errors *except* when such a correction would prevent you from installing, configuring, or successfully using the product. For example, if the name of an option contains a usage error, the name would be presented exactly as it appears in the product GUI; the error would not be corrected in any accompanying text.

## **Square Brackets**

Square brackets indicate that a particular parameter or value is optional within a logical argument, a command, or some programming syntax. That is, the parameter's or value's presence is not required to resolve the argument, command, or block of code. The user decides whether to include this optional information. Here is a sample:

smcp\_server -host [/flags]s

## **Angle Brackets**

Angle brackets indicate a placeholder for a value that the user must specify. This might be a DN or port number specific to your enterprise. Here is a sample:

```
smcp_server -host <confighost>
```

## **Related Resources**

Consult these additional resources as necessary:

- *Genesys Voice Platform 7.6 Deployment Guide,* which provides detailed installation and configuration instructions for GVP.
- *Genesys Voice Platform 7.6 Reference Manual*, which provides instructions for the administration and provisioning of GVP and its components.
- *Genesys Voice Platform 7.6 Troubleshooting Guide*, which provides trap and troubleshooting information for GVP.
- *Genesys Voice Platform 7.6 Voice Application Reporter Deployment and Reference Manual*, which provides installation instructions and describes the Voice Application Reporter and how to use its interface.

- *Genesys Voice Platform 7.6 Voice Application Reporter SDK Developer's Guide*, which provides examples on how to develop VoiceXML applications that interface with the Voice Application Reporter (VAR) database and generate application reports.
- *Genesys Voice Platform 7.6 VoiceXML 2.1 Reference Manual*, which provides information about developing VoiceXML 2.1 applications on GVP. It presents VoiceXML 2.1 concepts and provides examples that focus on the GVP implementation of VoiceXML. It also describes the platform extensions to VoiceXML that Genesys provides.
- Voice Extensible Markup Language (VoiceXML) Version 2.1, W3C Candidate Recommendation (CR) 13 June 2005. A Candidate Recommendation is a mature technical report that, after wide review for technical soundness and implementability, the W3C (World Wide Web Consortium) has sent to the W3C Advisory Committee for final endorsement.
- The *Genesys 7 Migration Guide*, also on the Genesys Documentation Library CD, which provides a documented migration strategy from Genesys product releases 5.1 and later to all Genesys 7.x releases. Contact Genesys Technical Support for additional information.
- *Genesys Technical Support Troubleshooting Guide,* which includes information about the GVP log files.
- Release Notes and Product Advisories for this product, which are available on the Genesys Technical Support website at http://genesyslab.com/support.

Information about supported hardware and third-party software is available on the Genesys Technical Support website in the following documents:

- Genesys 7 Supported Operating Systems and Databases
- Genesys 7 Supported Media Interfaces

Genesys product documentation is available on the:

- Genesys Technical Support website at http://genesyslab.com/support.
- Genesys Documentation Library CD, which you can order by e-mail from Genesys Order Management at orderman@genesyslab.com.

## **Making Comments on This Document**

If you especially like or dislike anything about this document, please feel free to e-mail your comments to Techpubs.webadmin@genesyslab.com.

You can comment on what you regard as specific errors or omissions, and on the accuracy, organization, subject matter, or completeness of this document. Please limit your comments to the information in this document only and to the way in which the information is presented. Speak to Genesys Technical Support if you have suggestions about the product itself. When you send us comments, you grant Genesys a nonexclusive right to use or distribute your comments in any way it believes appropriate, without incurring any obligation to you.



#### Chapter



# Installation

This chapter describes the software requirements and installation process for Studio 7.6. It contains the following sections:

- Software Requirements, page 13
- Installing Studio, page 15
- Enabling Studio Simulation Mode (GVP: DE only), page 18
- Post-Installation Configuration, page 19

## **Software Requirements**

Before installing Studio, you must consider all of the environment variables that are needed for a successful deployment.

## **Operating Systems Supported**

**Note:** Microsoft Internet Information Server (IIS) is optional; it is required only if you are developing Active Server Page (ASP) applications.

All workstations that you use to develop voice applications with Studio 7.6 must meet the following operating system requirements:

- Windows Server 2003 32-bit (Microsoft support discontinued)
- Windows XP 32-bit (Microsoft support discontinued)
- Windows Server 2008 32-bit
- Windows Server 2008 64-bit
- Windows 7 64-bit
- Windows Vista

## **Genesys Platforms Supported**

Studio 7.6 supports the following software:

• GVP 7.6

## **Database Servers Supported**

If you are using databases from the Data\_Access palette, Studio 7.6 supports the following databases:

- Microsoft SQL Server 2000 with Service Pack 3 or later.
- Microsoft SQL Server 2005.
- Oracle 9i R2.
- Oracle 10g R2.
- Microsoft Access 2003 (for ASP applications only)
- **Note:** You also must install the ODBC (Open Database Connectivity) for ASP applications database drivers. The JDBC (Java Database Connectivity) for JSP (Java Server Page) applications database drivers are bundled with Studio and are automatically installed with the software.

## **Speech Engines Supported**

Studio 7.6 supports the following speech engines:

- Media Resource Control Protocol (MRCP) Automatic Speech Recognition (ASR).
- MRCP Text-to-Speech (TTS).

## **ODBC Drivers Supported**

If you are using Studio to develop ASP applications, and if you are using the Data\_Access palette, you must install the ODBC driver that corresponds to your database server:

- Microsoft SQL Server 2000/2005 or Access 2003— Microsoft Data Access Components (MDAC) 2.8 or later.
- Oracle 9i or 10g—MDAC 2.8 or later, and the Oracle ODBC driver. You also must install the Oracle 9i Client software on the Web Application Server that will be running the Studio-generated ASP applications.

## **Application Servers Supported**

Studio 7.6 supports the following Web Application Servers for JSP applications:

- IBM Websphere 6.0 for Windows and Solaris
- BEA Weblogic 8.1
- Jakarta Tomcat 4.1
- Jakarta Tomcat 5.0 for Windows and Solaris
- Jakarta Tomcat 5.5 for Windows and Solaris

Studio 7.6 supports the following Web Application Servers for ASP applications:

- IIS 5.0 (Windows 2000)
- IIS 6.0 (Windows 2003)
- IIS 5.1 (Windows XP)

### Web Browsers

- Microsoft Internet Explorer 6.0 Service Pack 1 or later.
- Microsoft Internet Explorer 7.0.

## **Installing Studio**

Before you install Studio 7.6, make sure that:

- IIS is installed if the machine will be used for ASP application development.
- You have an account with administrative privileges to install Studio.

Genesys does not recommend installation of its components through a Microsoft Remote Desktop connection. You should perform the installation locally.

### Procedure: Installing Studio

#### Start of procedure

**1.** Insert the Genesys Voice Platform 7.6 Studio CD into the computer on which you want to install Studio.

Auto-run starts, and the Genesys Installation Wizard's welcome screen appears.

2. Click Next.

The Genesys License Agreement screen appears.

3. Select I accept Genesys License Agreement, and then click Next.

The Choose Destination Location screen appears.

4. Accept the default installation path in the Destination Folder text box, or click Browse to select an alternate destination. Click Next.

The Ready to Install screen appears.

5. Click Install.

The Installation Status screen appears, and then, after all of the files are copied, the Installation Complete screen appears.

- 6. Click Finish.
- **Note:** Studio installs an embedded Tomcat 5.5 Web server for its own internal use (code generation and simulation). Genesys does not recommend that you use the bundled Tomcat server as the web server for running your Studio-generated applications. You may use IIS, Websphere, BEA Weblogic, Apache with Tomcat or Tomcat as a standalone web server, depending upon your needs and the recommendations of your IT department.

End of procedure

### Procedure: Launching Studio

#### Start of procedure

 From the Windows Start menu, select Programs > Genesys Solutions > Voice Platform Studio > Start Voice Platform Studio.

### Procedure: Setting permissions

You must ensure that the IUSR\_<machineName>user (IIS anonymous user) has write permissions for the <Studio Install Path>\Temp folder (the default path for this folder is C:\Program Files\GCTI\Voice Platform Studio\).

#### Start of procedure

- Right-click the Temp folder and select Properties from the shortcut menu. The Properties dialog box appears.
- 2. Click the Securities tab, and then click Add.

If this location is not your local host machine, click Locations, scroll to select your local host machine, and then click OK.

- 3. In the Enter the object names to select box, enter IUSR, and then click Check Names. Click OK.
- 4. From the Group or user names text box, select the IUSR user, and then select Write permissions. Click Apply.

#### End of procedure

### Procedure: Configuring IIS for ASP application development

If you are using Studio to develop ASP applications, you must apply the following configuration change for IIS.

#### Start of procedure

1. In IIS, right-click the VXMLStudioSimulation virtual directory and select Properties from the shortcut menu.

The Properties dialog box appears.

2. Click the Virtual Directory tab, and then click Configuration.

The Configuration dialog box appears.

- 3. Click the Options tab, and then select the Enable buffering check box.
- **Note:** For ASP applications, the Voice Application Reporter (VAR) servicebased client must be installed. For instructions on installing VAR COM Client, see the *Genesys Voice Platform 7.6 Voice Application Reporter Deployment and Reference Manual.*

## Enabling Studio Simulation Mode (GVP: DE only)

This section describes how to enable the Simulation mode for Studio on a Genesys Voice Platform: Developer's Edition (GVP: DE) machine that is running Windows 2000 Professional or Windows XP Professional.

At the time of its installation, the GVP: DE setup creates the website 9810 Listener at port 9810, and stops the IIS default website that is running at port 80. When you install Studio, the setup creates two virtual directories, VXMLStudioSimulation and VXMLStudio, inside the IIS default website.

**Note:** IIS cannot run more than one website on Windows 2000 Professional and Windows XP Professional.

### Procedure: Creating Studio virtual directories under 9810 listener

**Purpose:** To run Studio's Simulation mode for ASP on a GVP: DE machine that is running Windows 2000 Professional or Windows XP Professional.

#### Start of procedure

- 1. On the system desktop, right-click My Computer.
- 2. Select Manage from the shortcut menu.

The Computer Management dialog box appears.

- 3. Select Services and Applications, and then select Internet Information Services.
- 4. Right-click 9810 Listener, and select New > Virtual Directory from the shortcut menu.
- 5. Name the virtual directory VXMLStudioSimulation and set the target path to C:\Program Files\GCTI\Voice Platform Studio\Temp\.
- 6. Create another virtual directory, named VXMLStudio in 9810 Listener. Set the target path to C:\Program Files\GCTI\Voice Platform Studio\.
- 7. Right-click VXMLStudio and select Properties from the shortcut menu. The Properties dialog box appears.
- 8. Click the Virtual Directory tab, and then click Configuration.
- 9. Click the Options tab, select the Enable buffering check box, and then click OK.

**10.** Right-click VXMLStudioSimulation and select Properties from the shortcut menu.

The Properties dialog box appears.

- 11. Click the Virtual Directory tab, and then click Configuration.
- 12. Click the Options tab, select the Enable buffering check box, and then click OK.
- 13. Modify the common.xml file so that the default URLs in the file point to the 9810 Listener. This file is located in the default Studio application installation path (C:\Program Files\GCTI\Voice Platform Studio\VoiceXML-ASP\).
  - Change the following:

URL:<WS\_VIRTUAL\_DIR>http://localhost/VXMLStudioSimulation/</ WS\_VIRTUAL\_DIR>

To:

<WS\_VIRTUAL\_DIR>http://localhost:9810/ VXMLStudioSimulation/</WS\_VIRTUAL\_DIR>.

• Change the following:

URL:<ABOUT\_HTML\_NAME>http://localhost/VXMLStudio/ VoiceXML-ASP/abouttrex.html</ABOUT\_HTML\_NAME>

To:

<ABOUT\_HTML\_NAME>http://localhost:9810/VXMLStudio/ VoiceXML-ASP/abouttrex.html</ABOUT\_HTML\_NAME>.

End of procedure

## **Post-Installation Configuration**

After installing Studio 7.6, you must consider non-Genesys environmental configurations.

## Windows 2003 POST Limit

If you are using Studio to develop ASP applications on Windows 2003, you must make the following configuration change in IIS.

In IIS 6.0, a default limit has been imposed on the amount of data that can be sent in HTTP POST. You must change this setting if you use Recording or Voice Application Reporter (VAR).

This change does not require stopping IIS; however, in order to write to the Metabase.xml file, you must complete the following steps.

**Note:** These steps are also required on the IIS 6.0 server on which the Studio generated ASP application are deployed.

### Procedure: Changing the Windows 2003 POST limit setting

#### Start of procedure

- 1. In IIS, right-click the server and select Properties from the shortcut menu. The Properties dialog box appears.
- 2. Select the Enable Direct Metabase Edit check box.
- 3. Open the Metabase.xml file, which is located in c:\Windows\System32\Inetsrv.
- 4. Locate the line ASPMaxRequestEntityAllowed, and change the value to 524288000.

End of procedure

## **Firewall Considerations**

### Procedure: Ensuring TCP ports have been opened

Purpose: To develop and test Studio applications.

#### Start of procedure

- If you have a local firewall on the development server (for example, Windows Firewall on Windows XP/2003), make sure that the following TCP ports have been opened:
  - IIS Default Web site port for ASP Applications (this is generally set to Port 80).
  - Port 9810 for Windows XP if GVP: DE is installed on the same machine.
  - Port 8182 for Code Tracer and JSP applications.

## **Oracle Configuration**

If you are using Studio to develop ASP applications, you must grant read/execute permission on the Oracle home directory for IIS to IUSR\_xxx where xxx is the machine name.

### Procedure: Granting read/execute permission for Oracle

#### Start of procedure

- 1. Log on to Windows as a user with administrator privileges.
- 2. From the Windows Start menu, launch Windows Explorer and navigate to the ORACLE\_HOME directory (for example, C:\oracle\ora92\).
- **3.** Right-click the ORACLE\_HOME folder and select Properties from the shortcut menu.

The Properties dialog box appears.

- 4. Click the Security tab.
- 5. In the Name list, select Authenticated Users.

Note: On Windows XP, the Name list is called Group or user names.

6. In the Permissions list, next to Read and Execute, clear the check box in the ALLow column in the Permissions list.

**Note:** On Windows XP, the Permissions list is called Permissions for Authenticated Users.

- 7. Re-select the Allow check box next to the Read and Execute box.
- 8. Click Apply, and then click OK.
- 9. Restart your computer.

#### End of procedure

## Windows 2003 MIME Types

If you are using Studio to develop ASP applications on Windows 2003, you must add MIME (Mulitpurpose Internet Mail Extension) types in IIS 6.0 for serving audio and grammar files.

### Procedure: Adding MIME Types in IIS 6.0

#### Start of procedure

- Add the following MIME types in IIS 6.0:
  - vox = application/octet-stream
  - grxml = application/srgs+xml
  - wav = application/octet-stream

End of procedure

## **OSDM 2.0 Configuration**

## Procedure: Configuring OSDM 2.0

If you are using Scansoft OSDM 2.0 in the Studio application, you must make sure that the OSDM Server is configured to work with GVP.

If you are using Scansoft SWMS 3.1 MRCP ASR with GVP, the following configuration is required:

#### Start of procedure

- On the OSDM Server, set the following properties in the web.xml file of the osdm2-core package:
  - browser = genesys
  - recognizer = osr3.0



#### Chapter



# Uninstallation

This chapter describes the uninstallation process for Studio 7.6. It contains the following section:

• Uninstalling Studio, page 23

## **Uninstalling Studio**

### Procedure: Uninstalling Studio

#### Start of procedure

- 1. Go to Control Panel > Add/Remove Programs.
- 2. Select Genesys Voice Platform Studio from the list of currently installed programs, and then click Remove.

The Genesys Installation Wizard's welcome screen appears.

3. Select Remove, and then click Next.

A dialog box appears asking whether you are sure that you want to uninstall Studio.

4. Click Yes.

The Installation Status screen appears, followed by the Maintenance Complete screen.

- 5. Click Finish.
- 6. Restart your computer.



# Index

## A

audience											
defining				÷		÷	÷				8

## С

chapter summa defining configuration			•	•	•	•	•	•		•	8
IIS											
OSDM 2.0											

## D

document									
conventions			2	2				2	8
version number				2			2	2	8

## F

firewall considerations			÷				20

## G

Genesys Studio	13
enabling studio simulation mode	
installing	15
operating requirements	13
post installation configuration	19
uninstalling	

## 

installing Genesys Studio	۰.		4				15
configuring IIS	2						. 17
launching							
setting permissions							

## Μ

MIME types																		.21	
------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----	--

## 0

operating requirements	
application servers supported	15
database servers supported	14
ODBC drivers supported	15
platform supported	14
speech engines supported	14
oracle	.21
OSDM	22

## Ρ

post installation configuration						
firewall considerations	÷	÷			2	20
		÷		÷	÷	21
OSDM 2.0		÷		÷	÷	22
Windows 2003 MIME types		÷			÷	21
Windows 2003 POST limit	÷	÷			2	19

## Т

typographical styles			÷												9
----------------------	--	--	---	--	--	--	--	--	--	--	--	--	--	--	---

## U

uninstalling		۰.						۰.	.23
Genesys Studio .	÷		÷	÷		÷			. 23

## V

version numbering								
document								.8

Index