

# Administration Guide

AvantGo Pylon Application Server

Version 5.2



## Company information

### About AvantGo®

AvantGo, Inc. (Nasdaq: AVGO) is the leading provider of mobile enterprise software. AvantGo solutions automate business processes and improve the exchange of information between companies and their employees and customers, resulting in improved business efficiencies and more effective customer interactions. AvantGo solutions include the best-of-breed mobile software platform for creating and deploying enterprise applications, proven customer relationship management (CRM), supply chain management (SCM) and personal information management (PIM) mobile business applications, and professional services to assist in the strategy, design and delivery of end-to-end mobile solutions. AvantGo's customers, which include 28 of the Fortune 100 and over 2500 companies in 50 countries, include McKesson Corporation, Ford Motor Company, Cisco Systems, FedEx, Scottish Power, The US Senate, Tyco, Harvard Medical School, American Express, The World Economic Forum, BG Group, plc., Genencor and Alcatel. For more information, please visit [www.avantgo.com](http://www.avantgo.com).

### Contacting AvantGo

If you need assistance using AvantGo software, please contact AvantGo Technical Support at [corp\\_support@avantgo.com](mailto:corp_support@avantgo.com); services will be provided in accordance with your support agreement.

If you need help with customizing AvantGo software to better serve your enterprise, please contact AvantGo Client Services at [consulting@avantgo.com](mailto:consulting@avantgo.com).

If you need information about other AvantGo products for your enterprise, please contact AvantGo Workforce Sales at [sales@avantgo.com](mailto:sales@avantgo.com).

If you have questions or suggestions about this document or other AvantGo technical publications, please contact AvantGo Technical Publications at [techpubs@avantgo.com](mailto:techpubs@avantgo.com).

### *Administration Guide for AvantGo Pylon Application Server, Version 5.2*

© 2003 AvantGo, Inc. All Rights Reserved. AvantGo, Inc., AvantGo, and AvantGo logo are trademarks of AvantGo Incorporated. All other trademarks are the property of their respective owners.

A portion of this software is based in part on the work of the Independent JPEG Group and on the work of the Netscape Communications' Netscape Communicator & Directory Server 5.0 (Mozilla) open source project.

This product includes software developed by the Apache Group for use in the Apache HTTP server project (<http://www.apache.org>).

This manual, as well as the software described in it, is furnished under license and may only be used or copied in accordance with the terms of such license. The information in this manual is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by AvantGo, Inc. AvantGo, Inc. assumes no responsibility or liability for any errors or inaccuracies that may appear in this book.

Except as permitted by such license, no part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means — electronic, mechanical, recording, or otherwise — without the prior written permission of AvantGo, Inc.

Written and designed at AvantGo, Inc.  
25881 Industrial Blvd.  
Hayward, CA 94545  
<http://avantgo.com>

---

# Table of Contents

<b>Company information</b> . . . . .	2
About AvantGo® . . . . .	2
Contacting AvantGo . . . . .	2
<b>List of Tables</b> . . . . .	7
<b>List of Figures</b> . . . . .	9

## Before you begin

---

<b>CHAPTER 1. About this guide</b> . . . . .	13
Focus of this guide . . . . .	14
Conventions . . . . .	15
Related publications . . . . .	16

## Getting started

---

<b>CHAPTER 2. Introduction to Pylon Application Server</b> . . . . .	19
About Pylon Application Server . . . . .	20
Pylon Application Server architecture . . . . .	21
Pylon Application Server . . . . .	21
Pylon Application Server Client . . . . .	22
What's new in this release . . . . .	24
Expanded support for Mail attachments . . . . .	24
Improved performance on Pocket PC OS devices . . . . .	24
Support for Palm OS 5.2 devices . . . . .	24
System requirements . . . . .	25
Getting started task checklist . . . . .	26
Installation and setup . . . . .	26
Adding users . . . . .	26
Deploying Pylon Application Server Client . . . . .	26

- CHAPTER 3. Installing Pylon Application Server . . . . . 29**
- Installing task checklist. . . . . 30
- Before installing. . . . . 31
  - Only run one version of Lotus Domino or Lotus Notes . . . . . 31
  - Install ActiveSync . . . . . 31
  - Uninstall earlier versions of Pylon software . . . . . 31
- Upgrading from version 5.0 or 5.1. . . . . 32
- Installing Pylon Application Server . . . . . 33
  - What gets installed . . . . . 34
- Uninstalling Pylon Application Server . . . . . 35
  
- CHAPTER 4. Securing Pylon Application Server . . . . . 37**
- Securing Pylon Application Server: an overview. . . . . 38
- Enabling security on the server. . . . . 39
  - Opening Port 14443 . . . . . 39
  - Generating an ECC certificate request and a private key . . . . . 39
  - Sending the certificate request to AvantGo . . . . . 41
  - Installing the certificate and appending it with your private key. . . . 41
  - Configuring security settings in notes.ini . . . . . 42
  - Confirming security is enabled. . . . . 42
- Enabling security on the client. . . . . 43

## Using AvantGo Pylon Application Server

---

- CHAPTER 5. Working with Pylon Application Server. . . . . 47**
- Overview . . . . . 48
- Setting up Domino Server to work with Pylon Application Server . . . . . 49
  - Opening firewalls and proxies. . . . . 49
  - Modifying the ACL (for multi-server support) . . . . . 49
  - Setting up user access to custom Lotus Notes databases . . . . . 49
- Running Pylon Application Server . . . . . 51
  - Removing Pylon as a server task. . . . . 51
  - Manually starting and stopping Pylon Application Server . . . . . 51
- Working with users . . . . . 53
  - Accessing AvantGo Pylon Configuration Database . . . . . 53
  - Adding users to the AvantGo Pylon Configuration Database . . . . . 53
  - Distributing Pylon Application Server Client. . . . . 56
  - Distributing PylonSync . . . . . 56
  - Distributing miscellaneous Palm applications . . . . . 57
  - Monitoring users' syncs. . . . . 57
  - Removing users from the Pylon License Database . . . . . 58

---

## Appendices

---

<b>APPENDIX A. Troubleshooting</b> . . . . .	61
Troubleshooting: installing . . . . .	62
Troubleshooting: accessing Pylon . . . . .	64
Troubleshooting: using Pylon . . . . .	65
Troubleshooting: uninstalling . . . . .	66
<b>APPENDIX B. The ACL of the Pylon Configuration Database.</b> . . . .	67
Understanding the Access Control List . . . . .	68
<b>APPENDIX C. Variations from Lotus Notes</b> . . . . .	71
Setting up form level create access . . . . .	71
Restricting access to servers . . . . .	72
Changes to the \$UpdatedBy text list field . . . . .	72
<b>Index.</b> . . . . .	73



---

# List of Tables

Table 1-1 Formatting conventions . . . . . 15

Table 1-2 Related publications . . . . . 16

Table A-1 Problems with installing . . . . . 62

Table A-2 Problems with accessing Pylon . . . . . 64

Table A-3 Problems with using Pylon . . . . . 65

Table A-4 Problems with uninstalling . . . . . 66

Table B-1 The ACL of the AvantGo Pylon Configuration Database . . . . . 68



---

# List of Figures

Figure 2-1	Pylon Application Server architecture . . . . .	21
Figure 3-1	The Pylon installer Access Key panel . . . . .	33
Figure 4-1	Reqtool program on Windows . . . . .	40
Figure 5-1	Starting Pylon Application Server . . . . .	52
Figure 5-2	The AvantGo Pylon Configuration Database . . . . .	53
Figure 5-3	A user's Person record on the Domino Server . . . . .	54
Figure 5-4	A user's Configuration document. . . . .	55
Figure 5-5	The Pylon License Database . . . . .	58
Figure C-1	The Lotus Notes Form dialog box . . . . .	72



# Before you begin

“About this guide” (page 13)





# CHAPTER 1. **About this guide**

---

- “Focus of this guide” (page 14)
- “Conventions” (page 15)
- “Related publications” (page 16)

## Focus of this guide

This guide provides the information you need to install, run, and configure AvantGo Pylon Application Server and includes information on how to add users to the AvantGo Pylon Configuration Database. This guide also provides an appendix for help with troubleshooting common installation or configuration problems. This guide covers both single-server and multi-server editions of Pylon Application Server.

Read this guide if you are an administrator responsible for installing and configuring Pylon Application Server; or for setting up users.

This document is provided in HTML and PDF formats. Access either format from the Start menu by clicking **Start|Programs|AvantGo Pylon Server|Help**. In addition, both versions of this document are available for download from AvantGo at <http://avantgo.com/doc> and from the corporate download site. For access to the corporate download site, please contact your AvantGo sales representative.

For detailed instructions on how to configure AvantGo Pylon Application Server Client and how to set up client user's mobile devices to sync to Pylon Application Server, refer to the *Setup Guide for AvantGo Pylon Application Server Client, Version 5.2*. See "Related publications" (page 16).

## Conventions

The following table lists the formatting conventions used throughout this guide.

**Table 1-1**  
Formatting  
conventions

Item	Treatment	Example
Name of publication	Italic	<i>Administrator Guide for AvantGo M-Business Server, Version 5.2</i>
User interface items: buttons, links, keywords	Bold	Click the <b>Reset</b> button.
Multi-level menu selections	Bold with vertical hash	Select <b>Start Settings Control Panel</b> .
Text you type in	Courier New	Type Admin in this field.
Text displayed in a file or on the screen	Courier New	The screen reads: Backup Complete
Variables	Angle brackets	<servername>
Keyboard command key	Angle brackets	<Enter>
File names	Italic	<i>Pods.h</i> <i>AGAppAlertServer.exe</i>

## Related publications

In addition to the HTML and PDF versions of this document, there are other publications available that you may find useful in administering AvantGo Pylon software. The following table provides a list of publications, along with their media formats and locations.

**Table 1-2**  
Related  
publications

Document Title, Format, and Location	
<i>Setup Guide for AvantGo Pylon Application Server Client, Version 5.2</i>	
<b>PDF</b>	<a href="http://avantgo.com/doc/pylon/ClientSetupGuide.pdf">http://avantgo.com/doc/pylon/ClientSetupGuide.pdf</a>
<b>HTML</b>	<a href="http://avantgo.com/doc/pylon/client_guide/">http://avantgo.com/doc/pylon/client_guide/</a>
<i>Frequently Asked Questions</i>	
<b>HTML</b>	<a href="http://avantgo.com/support/pylon_support/index.html">http://avantgo.com/support/pylon_support/index.html</a>
<i>Discussion Database</i>	
<b>HTML</b>	<a href="http://domino.sybase.com/discussion">http://domino.sybase.com/discussion</a>

# Getting started

“Introduction to Pylon Application Server”  
(page 19)

“Installing Pylon Application Server” (page 29)

“Securing Pylon Application Server” (page 37)





## CHAPTER 2. **Introduction to Pylon Application Server**

---

- “About Pylon Application Server” (page 20)
- “Pylon Application Server architecture” (page 21)
- “What’s new in this release” (page 24)
- “System requirements” (page 25)
- “Getting started task checklist” (page 26)

## About Pylon Application Server

AvantGo Pylon Application Server is a Microsoft Windows NT Server application implemented as a Lotus Domino add-in task. It works in conjunction with the client software, AvantGo Pylon Application Server Client.

Pylon Application Server allows for multiple simultaneous synchronizations with Lotus Notes to occur through server dial-up or over a TCP/IP network.

Pylon Application Server, single-server support, is the premier solution for remote access to Lotus Notes personal information management (PIM) applications such as email, calendar, address book, memos and tasks, as well as to Lotus Notes custom databases and applications, directly from Palm OS and Pocket PC OS devices.

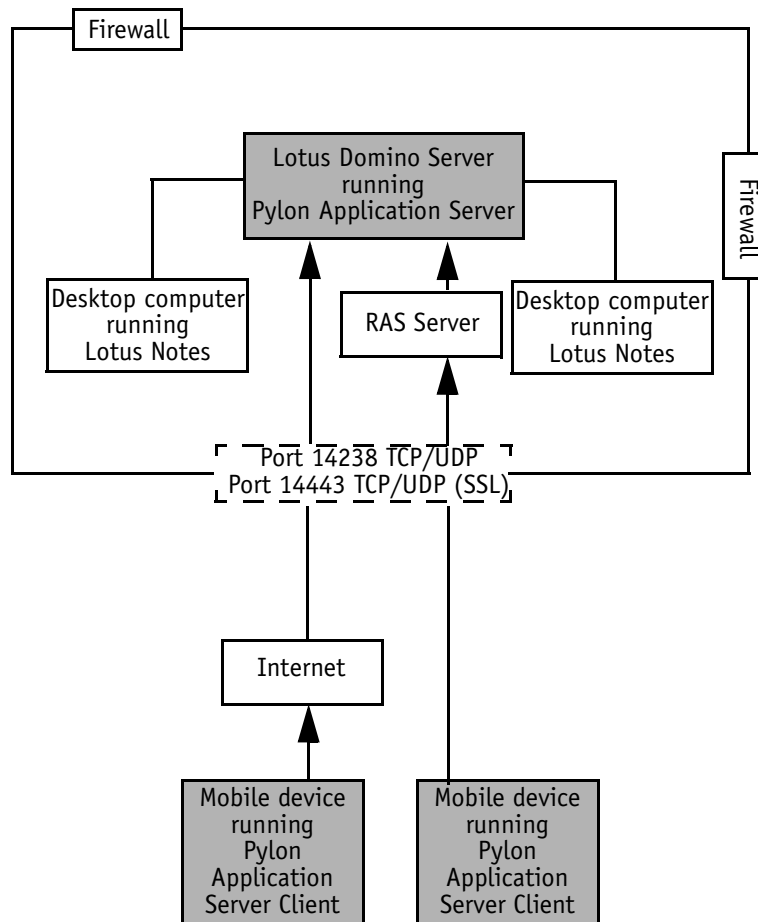
Pylon Application Server, multi-server support, extends this functionality by supporting multi-server synchronization, providing simplified management for large deployments with the ability to access data on multiple Domino servers. Using AvantGo Pylon Advanced Server, users can synchronize with any Lotus Domino-supported operating system, including AIX, Solaris, Linux, AS/400, and S/390.

Both single-server and multi-server support leverage existing Lotus Notes directories as well as maintain Lotus Domino security models, providing easy, centralized administration and security.

## Pylon Application Server architecture

Figure 2-1 illustrates Pylon Application Server architecture. The text that follows describes the key components identified in the shaded boxes.

**Figure 2-1**  
Pylon Application  
Server architecture



### Pylon Application Server

Pylon Application Server:

- Runs as an add-in task on a Domino Server.
- Installs AvantGo Pylon Configuration Database on the Domino Server.
- Needs port 14238 opened in the firewall. If you are using the security feature, also needs port 14443 opened.
- Needs client users' Mail file and custom databases replicated on the Domino Server.

- Authenticates client users against their names and Internet passwords in their Person Documents.

### ***AvantGo Pylon Configuration Database***

The AvantGo Pylon Configuration Database:

- Is the user interface for configuring users' mobile needs.
- Resides on the Domino Server running Pylon Application Server.

## **Pylon Application Server Client**

Pylon Application Server Client:

- Connects mobile devices through the Internet or through a RAS server to the Domino Server running Pylon Application Server.
- Consists of software that either you or your users configure in the AvantGo Pylon Configuration Database, from a desktop computer:
  - **AvantGo Pylon Conduit**

Pylon Conduit provides Lotus Notes PIM data on your mobile device. Configure Pylon Conduit within the AvantGo Pylon Configuration Database.
  - **AvantGo Pylon Pro (on the desktop)**

Pylon Pro provides Lotus Notes custom database and applications on your mobile device. Configure Pylon Pro within the AvantGo Pylon Configuration Database. Pylon Pro is a license key-enabled piece of Pylon Application Server Client.
- Consists of software that either you or your users install on their mobile devices to provide them with mobile access to Lotus Notes PIM data as well as to Lotus Notes custom databases and applications:
  - **AvantGo PylonSync**

PylonSync allows you to configure settings for Pylon Application Server directly on a mobile device. If the device is equipped with a modem or a wireless connection, enable PylonSync in order to sync remotely to Pylon Application Server.
  - **AvantGo Pylon Pro (on the device)**

Pylon Pro on the device allows mobile access to Lotus Notes custom database and applications. Pylon Pro is a license key-enabled piece of Pylon Application Server Client.
  - **AvantGo PylonSelect**

PylonSelect provides multi-calendar access on users' mobile devices. PylonSelect installs automatically to the device if the user has Pylon Application Server Client configured to sync more than one calendar database.

For detailed instructions on how to configure AvantGo Pylon Application Server Client and how to set up client user's mobile devices to sync to Pylon Application Server, refer to the *Setup Guide for AvantGo Pylon Application Server Client, Version 5.2*. See "Related publications" (page 16).

## What's new in this release

Pylon Application Server and AvantGo Pylon Application Server Client include the following new features and product enhancements.

### Expanded support for Mail attachments

Pylon Application Server now allows for on-device editing of attachments and supports the following file formats:

- Rich text format (*\*.rtf*) files, which can be output by Microsoft Word and most other popular word processors.
- Microsoft Word (*\*.doc* and *\*.rtf*) files appended as text to the message body.
- Microsoft Excel (*\*.xls*) files.
- Control of the total size of attachments per message.

### Improved performance on Pocket PC OS devices

Pylon Application Server now syncs Lotus Notes' Personal Information Management (PIM) applications (Mail, Calendar, Address Book, To Do, Memo Pad, and Expense) at twice the speed of the previous release.

### Support for Palm OS 5.2 devices

Pylon Application Server now supports Palm OS 5.2 devices, for example, the Palm Tungsten C.

## System requirements

Before installing Pylon Application Server, confirm the general installation requirements.

- One of the following operating systems:
  - Microsoft Windows 2000 Professional with Service Pack 2
  - Microsoft Windows NT with Service Pack 6a
- One of the following versions of Lotus Domino:
  - Release 5.0
  - Release 6.0
- One of the following versions of Lotus Notes:
  - Release 4.6
  - Release 5.x
  - Release 6.x
- Microsoft Internet Explorer 5.0 and above
- An active Internet connection
- Microsoft ActiveSync 3.1 and above

## Getting started task checklist

The following sections outline the major tasks associated with installing and maintaining Pylon Application Server, as well as with adding users to the AvantGo Pylon Configuration Database and distributing Pylon Application Server Client to users with Pocket PC OS devices.

### Installation and setup

- ✓ Review the system requirements.  
“System requirements” (page 25)
- ✓ Install ActiveSync on the Domino Server.  
“Install ActiveSync” (page 31)
- ✓ Install Pylon Application Server on the Domino Server.  
“Installing Pylon Application Server” (page 33)
- ✓ Start Pylon Application Server.  
“Running Pylon Application Server” (page 51)
- ✓ Set up security.  
“Enabling security on the server” (page 39)

### Adding users

- ✓ Compile a list of users.
- ✓ For users with similar needs, create a group in Lotus Notes, then create a configuration document for that group of users.
- ✓ for users with unique needs, create a separate configuration document for each user.  
“Adding users to the AvantGo Pylon Configuration Database” (page 53)
- ✓ Set up users’ configuration documents, based on their mobile needs. Or, allow users to set up their own configuration documents. For detailed instructions, refer to or distribute the *Setup Guide for AvantGo Pylon Application Server Client, Version 5.2*. See “Related publications” (page 16).

### Deploying Pylon Application Server Client

- ✓ Distribute the Pylon Application Server Client executable to Pocket PC OS users.  
“Distributing Pylon Application Server Client” (page 56)

**Note**

For users with Palm OS devices, Pylon Application Server Client installs on the device when they perform an initial synchronization. There is no separate executable.



## CHAPTER 3. **Installing Pylon Application Server**

---

- “Installing task checklist” (page 30)
- “Before installing” (page 31)
- “Upgrading from version 5.0 or 5.1” (page 32)
- “Installing Pylon Application Server” (page 33)
- “Uninstalling Pylon Application Server” (page 35)

## Installing task checklist

Before installing AvantGo Pylon Application Server, review the following task checklist. Keep referring to the checklist as you continue with the installation process.

---

---

**Note**

These instructions assume that you already have purchased the product and obtained an access or a license key. If not, contact [pylon\\_support@avantgo.com](mailto:pylon_support@avantgo.com).

- ✓ Download Pylon Application Server software from our corporate downloads site. The software comes in the form of a compressed file. Save this file, *pylonserver.zip*, to a local drive where you easily can access it. The compressed file contains two executables:
  - *pylonServer.exe*
  - *pylonserverPocketPC.exe*
- ✓ Read the section in this guide entitled, “Before installing” (page 31). Follow any relevant instructions in that section to ensure your Domino Server environment is set up properly for the installation.
- ✓ If you are upgrading from a previous version of AvantGo Pylon Application Server, see “Upgrading from version 5.0 or 5.1” (page 32).
- ✓ Run the installer executable, *pylonServer.exe*, to install the software on the Domino Server. See “Installing Pylon Application Server” (page 33).
- ✓ Once you have installed the software, configure Pylon Application Server to enable security. See “Securing Pylon Application Server” (page 37). If you don’t want to enable security, proceed to “Working with Pylon Application Server” (page 47).

## Before installing

Certain situations may affect the expected behavior of Pylon Application Server. There are three pre-installation recommendations:

- “Only run one version of Lotus Domino or Lotus Notes” (page 31)
- “Install ActiveSync” (page 31)
- “Uninstall earlier versions of Pylon software” (page 31)

### Only run one version of Lotus Domino or Lotus Notes

AvantGo recommends running only one version of Lotus Domino (including Lotus Notes) while using Pylon Application Server. For example, it is best not to run both Release 4.6 and Release 5.0.

If you must run multiple versions of either Lotus Domino or Lotus Notes, you may need to modify the Microsoft Windows Registry. See “Troubleshooting: installing” (page 62).

### Install ActiveSync

Install Microsoft ActiveSync 3.1, 3.5, or 3.6 on the Domino Server on which you will install Pylon Application Server. You do not need to establish a partnership with a mobile device.

### Uninstall earlier versions of Pylon software

---

---

**Note**

If you are upgrading from a previous version of Pylon Application Server, see “Upgrading from version 5.0 or 5.1” (page 32).

If you are running an earlier version of Pylon software (including Pylon Conduit, PylonPro, Pylon ServerSync, AvantGo Enterprise for Lotus Notes, or AvantGo Enterprise for Lotus Domino), before installing, do the following:

- Synchronize all mobile devices a final time.
- Uninstall the old version from the Domino Server and the mobile devices.
- Delete or rename the AvantGo Pylon Configuration Database (*pyloncfg.nsf*) in Lotus Notes (typically found at C:\Lotus\Domino\Data).

For more information about uninstalling, see “Uninstalling Pylon Application Server” (page 35).

## Upgrading from version 5.0 or 5.1

If you are upgrading from version 5.0 or 5.1 of Pylon Application Server and wish to preserve the configuration data in your AvantGo Pylon Configuration Database, do the following.

To upgrade Pylon Application Server:

1. Synchronize all mobile devices a final time.
2. Navigate to the AvantGo Pylon Configuration Database (*pyloncfg.nsf*), typically found at C:\Lotus\Domino\Data, and rename it to *pyloncfg\_old.nsf*.
3. Uninstall Pylon Application Server. See “Uninstalling Pylon Application Server” (page 35).
4. Uninstall Pylon Application Server Client from your users’ mobile devices. For instructions on how to uninstall from mobile devices, see the *Setup Guide for AvantGo Pylon Application Server Client, Version 5.2*. See “Related publications” (page 16).
5. Install Pylon Application Server. See “Installing Pylon Application Server” (page 33).

Pylon Application Server installs a new AvantGo Pylon Configuration Database (*pyloncfg.nsf*).

6. Navigate to the new AvantGo Pylon Configuration Database (*pyloncfg.nsf*), typically found at C:\Lotus\Domino\Data, and rename it to *pyloncfg\_new.nsf*.
7. Rename your old AvantGo Pylon Configuration Database (*pyloncfg\_old.nsf*) to *pyloncfg.nsf*.
8. In Lotus Notes, open your old AvantGo Pylon Configuration Database that you just renamed to *pyloncfg.nsf*.
9. Click **File|Database|Refresh Design**.

If your license has changed, manually update the license number in each user’s Configuration document.

## Installing Pylon Application Server

With the purchase of Pylon Application Server you receive an access or a license key. Your access or license key allows for installation and running of the software, and licenses a specified number of client users.

To install Pylon Application Server:

1. Quit Lotus Domino Server and close Lotus Notes, if applicable.
2. Double-click the installer file, *pylonServer.exe*.

The InstallShield Wizard for AvantGo Pylon Application Server starts.

### Note

If you have forgotten to quit Lotus Domino or close Lotus Notes, you will see the Close Down Lotus Notes dialog box instead of the Welcome panel. To solve this problem, close all Lotus software, then return to the installer and click **Yes** to proceed with installation.

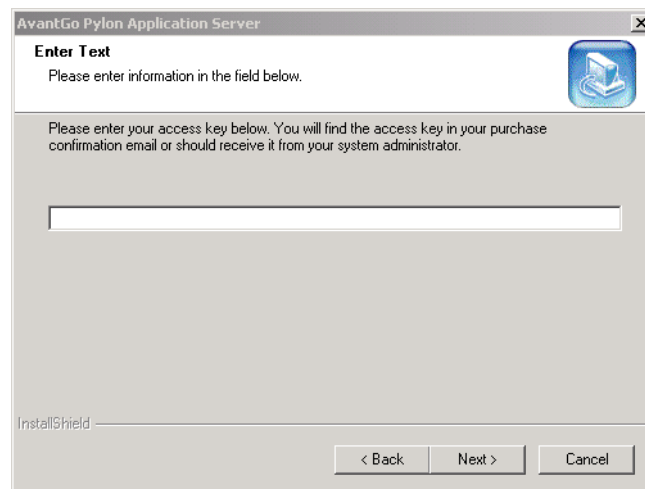
3. Click **Next** to continue.

The Pylon Application Server License Agreement dialog box appears.

4. Read the agreement, then click **Yes** to accept the agreement and continue with the installation.

The Pylon installer Access Key panel appears.

**Figure 3-1**  
The Pylon installer  
Access Key panel



5. Enter the Pylon access or license key provided in your purchase confirmation email.

### Note

If you see an invalid access key error message, check to confirm that you have entered your access key exactly as it was given to you. For further help, see “Troubleshooting: installing” (page 62).

6. Click **Next** to continue.

The Pylon installer Choose Destination Location panel appears. Pylon installer will install Pylon Application Server in the location listed.

7. Click **Next** if the location listed is acceptable, or click **Browse...** to choose a different destination folder.
8. Click **Next** to continue.

The Pylon installer advises that for the changes to take effect you must reboot your computer.

9. Click **Yes** to reboot your computer now (recommended).
10. Click **Finish** to complete the installation process.

The Pylon installer completes the installation process.

---

---

**Note**

If, after installing Pylon Application Server you upgrade or install a new version of Lotus Domino, you will have to reinstall Pylon. See “Troubleshooting: using Pylon” (page 65).

## What gets installed

During an install of Pylon Application Server, the following directories are created and components are installed:

- **C:\Lotus\Domino\pylon.exe**

The program application installs to the Domino directory.

- **C:\Lotus\Domino\Data\pyloncfg.nsf**

The AvantGo Pylon Configuration Database installs to the Domino data directory. This database is where the administrator creates a Configuration document for each user.

- **C:\Lotus\Domino\Data\PylonLicensees.nsf**

The Pylon License Database installs to the Domino data directory. This database contains information for each user syncing under license.

- **C:\Program Files\AvantGo\Pylon Application Server**

The AvantGo directory installs to the Program Files directory. This directory contains Pylon Application Server documentation, tools to request security certificates, files Pylon Application Server uses to install Pylon Application Server Client on Palm OS devices, files used to support the Mail attachment feature, and files needed for using Pylon Application Server Client with Pocket PC OS devices.

---

---

**Note**

For users with Palm OS devices, Pylon Application Server Client installs on the device when they perform an initial synchronization. There is no separate executable. For users with Pocket PC OS devices, there is a separate Pylon Application Server Client executable. For instructions on distributing the executable, see “Distributing Pylon Application Server Client” (page 56).

## Uninstalling Pylon Application Server

The following instructions take you through the procedure for deleting Pylon Application Server and its related components.

To uninstall Pylon Application Server:

1. From the Domino Server console, quit Pylon Application Server. For instructions, see “Manually starting and stopping Pylon Application Server” (page 51).
2. Wait for the Domino Server console to read, “Pylon:Termination completed.”

---

---

**Note**

This process may take several minutes.

3. Select **Start|Settings|Control Panel**.
4. Double-click the **Add/Remove Programs** icon.
5. Select **AvantGo Pylon Application Server**, then click **Remove** (Windows NT) or **Change/Remove** (Windows 2000).
6. Navigate to **C:\Lotus\Domino\Data** and manually delete the AvantGo Pylon Configuration Database (*pyloncfg.nsf*).
7. Navigate to **C:\Lotus\Domino\notes.ini** and manually delete the following lines:
  - \$PylonServerLicense=
  - \$PylonSSLCertificatePath=
  - \$PylonSSLCertificatePassword=
  - \$PylonBuildNumber=
8. In the *notes.ini* file do a search for **ServerTask=**, and delete Pylon.

To complete the uninstall procedure, delete all AvantGo Pylon files from your users' mobile devices. For detailed instructions, refer to the *Setup Guide for AvantGo Pylon Application Server Client, Version 5.2*. See “Related publications” (page 16).



# CHAPTER 4. **Securing Pylon Application Server**

---

- “Securing Pylon Application Server: an overview” (page 38)
- “Enabling security on the server” (page 39)
- “Enabling security on the client” (page 43)

## Securing Pylon Application Server: an overview

To protect corporate networks during wireless synchronizations, AvantGo Pylon Application Server uses Secure Sockets Layer (SSL), version 3.0 technology, ensuring data encryption, server authentication, and message integrity over a TCP/IP connection. Pylon Application Server uses Certicom libraries and supports the use of elliptic curve cryptography (ECC) certificates.

Use the security feature and AvantGo Pylon Sync on the device to ensure secure wireless connections to Pylon Application Server. This chapter provides step by step instructions for enabling the security feature, which works with both single-server and multi-server support.

## Enabling security on the server

Follow these steps to install an ECC certificate and enable security for wireless syncing to Pylon Application Server.

- ✓ Open port 14443 in your firewall.  
“Opening Port 14443” (page 39)
- ✓ Generate a request for an ECC certificate and a private key.  
“Generating an ECC certificate request and a private key” (page 39)
- ✓ Send an email requesting a certificate to AvantGo.  
“Sending the certificate request to AvantGo” (page 41)
- ✓ After obtaining your certificate from AvantGo, install the certificate on your server and append it with your private key.  
“Installing the certificate and appending it with your private key” (page 41)
- ✓ Configure security settings for Pylon Application Server in the Notes.ini file.  
“Configuring security settings in notes.ini” (page 42)
- ✓ Confirm security is enabled.  
“Confirming security is enabled” (page 42)

After enabling security on the server, see “Enabling security on the client” (page 43).

### Opening Port 14443

The security feature uses TCP/IP Port 14443. Set up the Domino Server running Pylon Application Server to be visible to the Internet, and open the firewall to allow traffic in both directions on Port 14443.

---

---

**Note**

You also should have Port 14238 open. See “Pylon Application Server” (page 21).

### Generating an ECC certificate request and a private key

Use the reqtool program to generate a private key and a request for an ECC certificate from AvantGo. The private key enables Pylon Application Server to encrypt its transactions; you will send the certificate request to AvantGo for signing. AvantGo will sign your certificate with the AvantGo Root Certificate and send you your certificate file, which you must install on your server.

---

---

**Note**

ECC security certificates obtained from AvantGo are granted valid for one year. New certificates will be provided annually, as part of your maintenance contract. When your old certificate expires, generate a new certificate request, then send that to AvantGo for signing.

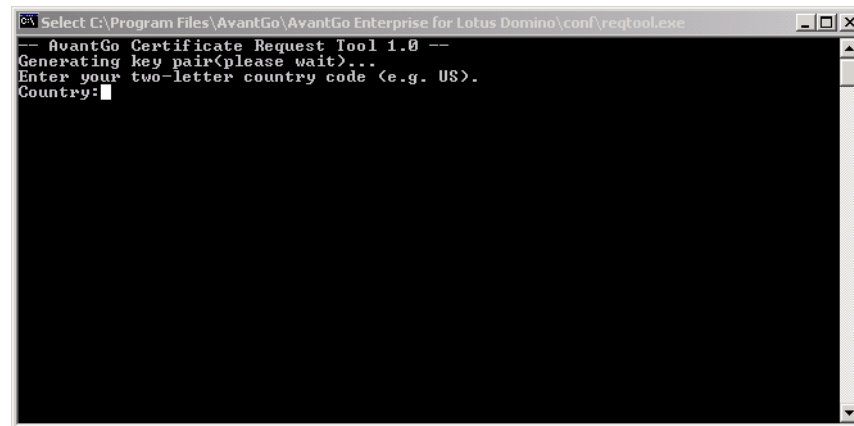
Perform the steps below to generate a certificate request and a private key. Press <Enter> after each entry to continue.

1. Open Windows Explorer and navigate to **C:\Program Files\AvantGo\Pylon Application Server\conf**.

2. Double-click the *reqtool.exe* file.

The reqtool executable runs.

**Figure 4-1**  
Reqtool program on  
Windows



3. Enter your country code (Example: US).
4. Enter your state or province (Example: California).
5. Enter your locality/city (Example: San Mateo).
6. Enter your company or organization name (Example: MyCompany, Inc.).
7. Enter your organizational unit name (Example: Internal Support).
8. Enter the server name where your certificate will be installed (Example: notesserver/avantgo). This should be the same machine where Pylon Application Server is installed.
9. Enter a password that will protect your private key.

#### **Note**

This password must consist of fewer than 64 strictly alphanumeric characters (i.e., only A-Z, a-z, and 0-9 will be accepted).

10. Enter your Pylon Application Server access or license key.
11. Enter a filename for the request (Example: companyname.req)
12. Enter a filename for the private key (Example: companyname.priv).

The **reqtool** auto-generates this file and places it in your **C:\Program Files\AvantGo\Pylon Application Server\conf** directory.

The **reqtool** auto-generates this file and places it in your **C:\Program Files\AvantGo\Pylon Application Server\conf** directory.

Successful execution of **reqtool** produces three files:

- a certificate request

- an encrypted private key
- a log file, which contains the passphrase to the encrypted private key

Together, these three files provide everything someone would need to eavesdrop encrypted traffic between Pylon Application Server and Pylon Application Server Client. For this reason, it is critical that you never send the encrypted private key or the passphrase to any outside party, including AvantGo.

AvantGo needs only the certificate request to issue you a certificate. If you encounter problems installing your certificate, our support department may request a copy of the **reqtool** log file. Make sure that you remove your private-key passphrase from the log file before sending it to us. Once you have successfully installed your certificate, you may want to consider deleting the log file entirely.

## **Sending the certificate request to AvantGo**

Once you have generated your certificate request, send it to AvantGo for signing. Your security certificate will be provided annually, as part of your maintenance contract. When your old certificate expires, generate a new certificate request, then send it to AvantGo for signing.

To send your certificate request to AvantGo:

1. Address an email to [cert\\_request@avantgo.com](mailto:cert_request@avantgo.com).
2. Type `Certificate Request` in the subject line of your email.
3. Attach to the email the certificate request file you created. See “Generating an ECC certificate request and a private key” (page 39).

## **Installing the certificate and appending it with your private key**

AvantGo will email back to you a compressed file containing your certificate file. Append your private key to the end of the certificate file, save the file, then copy it to a directory you create.

---

---

**Note**

Because your certificate file is returned to you as a compressed file, you will need a utility suitable for uncompressing this type of file, for example, WinZip.

To install the certificate and append it with your private key:

1. Open your private key file in a text editor and copy its contents.
2. Open your certificate file and paste the contents of your private key file to the end.
3. Save the certificate file.
4. Copy it to a directory you create, for example, `C:\Cert\`.

## Configuring security settings in notes.ini

To tell Pylon Application Server where your ECC certificate is located and what your certificate password is, amend certain Pylon settings in the *notes.ini* file.

To configure security settings in notes.ini:

1. Navigate to the location of your notes.ini file (commonly found at C:\Lotus\Domino\Data).
2. Using a text editor, open the file, *notes.ini*.
3. Perform a search to find the following settings:
  - **\$PylonSSLCertificatePath=**  
Add your certificate location and name after the =. For example, \$PylonSSLCertificatePath=C:\Cert\avgocrt.crt.
  - **\$PylonSSLCertificatePassword=**  
Add your certificate password after the =. For example, \$PylonSSLCertificatePassword=69ftElvis.
4. Save the changes, then close the file.

## Confirming security is enabled

As a final step, use the Lotus Domino Server console to confirm security is enabled.

To confirm security is enabled:

1. Select **Start|Programs|Lotus Applications|Lotus Domino Server**.  
Lotus Domino Server starts.
2. At the prompt, type `load pylon`.  
Pylon Application Server starts.
3. If security is successfully enabled, you will see the following status lines:  
`Pylon:Secure Connect Enabled`  
`Secure port 14443: accept`

If secure connect is disabled, make sure the security settings in the *notes.ini* file are configured correctly.

## Enabling security on the client

After installing a security certificate and setting the security preferences for Pylon Application Server, you will need to enable security for AvantGo Pylon Application Server Client in AvantGo Pylon Sync on the device.

Add users to the AvantGo Pylon Configuration Database, set up mobile devices to sync to Pylon Application Server, then enable security in Pylon Sync on the device.

Depending on how you deploy Pylon Application Server Client to your users, either you will set the security preference for your users, or you will instruct your users to enable security for themselves.

How to enable security on both Palm OS and Pocket PC OS devices is covered in the *Setup Guide for AvantGo Pylon Application Server Client, Version 5.2*. See “Related publications” (page 16).



# Using AvantGo Pylon Application Server

“Working with Pylon Application Server” (page 47)





# CHAPTER 5. **Working with Pylon Application Server**

---

---

- “Overview” (page 48)
- “Setting up Domino Server to work with Pylon Application Server” (page 49)
- “Running Pylon Application Server” (page 51)
- “Working with users” (page 53)

## Overview

This chapter contains the information necessary to successfully run AvantGo Pylon Application Server, as well as information on the steps an administrator must perform before allowing client users access to the AvantGo Pylon Configuration Database.

---

## Setting up Domino Server to work with Pylon Application Server

Configure your Domino Server environment to work with Pylon Application Server by:

- “Opening firewalls and proxies” (page 49)
- “Modifying the ACL (for multi-server support)” (page 49)
- “Setting up user access to custom Lotus Notes databases” (page 49)

### Opening firewalls and proxies

The Network HotSync protocol uses TCP/IP Port 14238. If Palm OS or Pocket PC OS devices connect to Pylon Application Server over the Internet, set up the Domino Server to be visible to the Internet, and set up firewalls and proxies to allow traffic in both directions on Port 14238.

If you are using the security feature, you also must open Port 14443. See “Opening Port 14443” (page 39).

### Modifying the ACL (for multi-server support)

---

---

**Note**

The information in this section only applies to multi-server support.

Because the Pylon Application Server multi-server support is set up as a server add-in task, multi-server support runs under the server’s ID and has the server’s Access Control List (ACL) rights.

As with other servers, Pylon Application Server is expected to be a member of the group, LocalDomainServers. Pylon Application Server multi-server support, acts as a proxy for client users, and if it does not have access, it will not be able to determine whether or not the user has access.

In your Lotus Notes environment, if Pylon Application Server is not a member of the group, Local Domain Servers, or if LocalDomainServers does not have the access usually granted to this group, set up Pylon Application Server to have a superset of all access that you want any individual client user to have.

### Setting up user access to custom Lotus Notes databases

If you are using Pylon Application Server Client to sync custom Lotus Notes databases, please note that users cannot use Pylon Application Server Client to synchronize a custom Lotus Notes database if they don’t have access to the database’s form.

If a user has only Public Access to a database and to a view in the database, and if some documents are marked as available to Public Access users, those documents will appear in the view. The user can see all stored fields by right-clicking, then checking the document

properties. However, if the user attempts to open one of these documents, the open attempt will be refused.

## Running Pylon Application Server

Pylon Application Server should be running whenever users are attempting to sync to the server. During installation, Pylon is added as a server task in the *notes.ini* file. This allows Pylon Application Server to autoload with the Domino Server. After configuring your Domino Server environment, if you do not want the server to load automatically, delete Pylon as a server task, then manually start and stop Pylon Application Server.

These instructions are for both single-server and multi-server support.

### Removing Pylon as a server task

Remove Pylon from the ServerTasks line in the *notes.ini* file to prevent Pylon Application Server from autoloading.

To remove Pylon as a server task:

1. Navigate to the location of your *notes.ini* file (commonly found at C:\Lotus\Domino).
2. Using a text editor, open the *notes.ini* file.
3. Perform a search to find the following setting:  
**ServerTasks=**
4. Remove Pylon from this line.

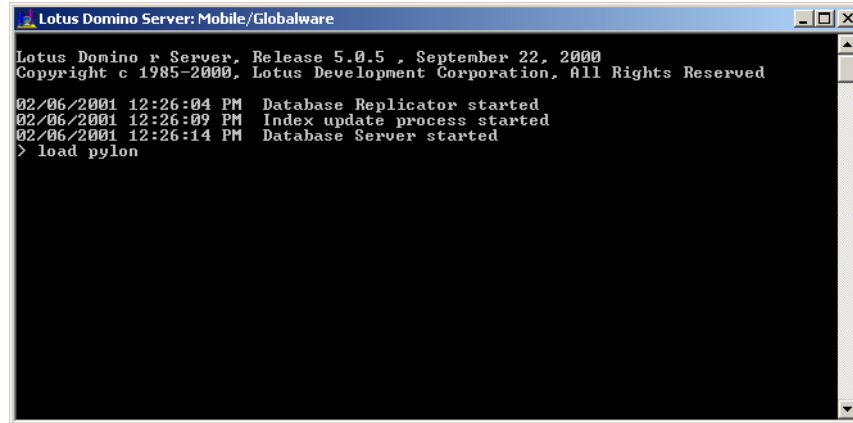
### Manually starting and stopping Pylon Application Server

Start and stop Pylon Application Server from the Lotus Domino Server console.

To manually start and stop Pylon Application Server:

1. Select **Start|Programs|Lotus Applications|Lotus Domino Server**.  
The Domino Server starts.
2. To start Pylon Application Server, type `load pylon`.  
Pylon Application Server starts.

**Figure 5-1**  
Starting Pylon  
Application Server



```
Lotus Domino Server: Mobile/Globalware
Lotus Domino r Server, Release 5.0.5 , September 22, 2000
Copyright c 1985-2000, Lotus Development Corporation, All Rights Reserved

02/06/2001 12:26:04 PM Database Replicator started
02/06/2001 12:26:09 PM Index update process started
02/06/2001 12:26:14 PM Database Server started
> load pylon
```

3. To stop Pylon Application Server, type `tell pylon quit`.  
Pylon Application Server stops.

## Working with users

Once you have configured your Domino Server environment and loaded Pylon Application Server, you are ready to work with users.

### Accessing AvantGo Pylon Configuration Database

The AvantGo Pylon Configuration Database lives on the Domino Server where you installed Pylon Application Server and is where you or your client users access their configuration documents to configure Pylon Application Server Client to meet their specific mobile needs.

To access the AvantGo Pylon Configuration Database:

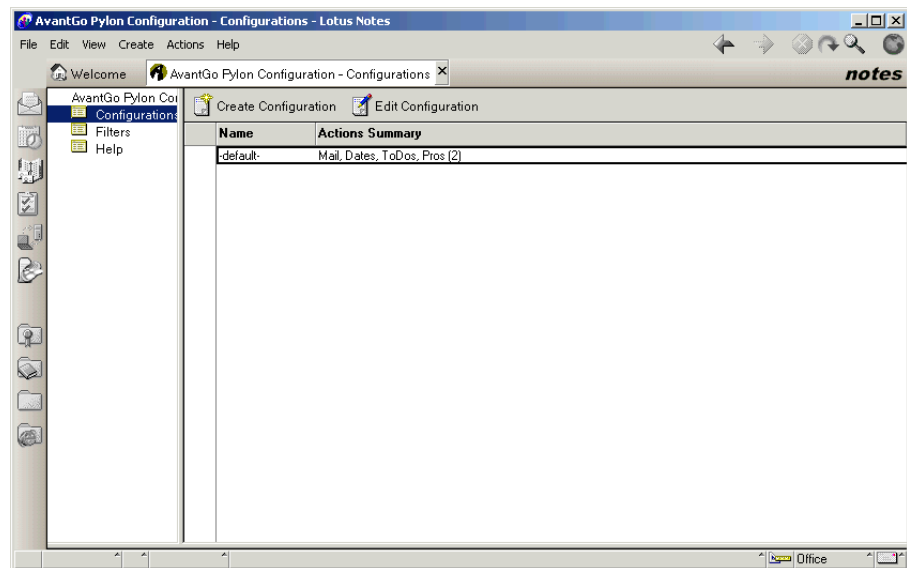
1. Open Lotus Notes on any computer connected over a network to the Domino Server running Pylon Application Server.
2. Select **File|Database|Open**.

The Open Database dialog box appears.

3. From the drop-down list, choose the server running Pylon Application Server.
4. Under **Database**, select **AvantGo Pylon Configuration**.
5. Click **Open**.

The AvantGo Pylon Configuration Database opens.

**Figure 5-2**  
The AvantGo Pylon Configuration Database



### Adding users to the AvantGo Pylon Configuration Database

In order for users with either Pocket PC OS or Palm OS devices to sync successfully to Pylon Application Server, the following must match:

- alias in Person record on Domino Server
- user name in Configuration document in AvantGo Pylon Configuration Database

To ensure that Pylon Application Server and Client software maintains the Notes/Domino security model, before adding users to the AvantGo Pylon Configuration Database, create an Internet password for each user in that user's Person record on the Domino Server.

---

**Tip**

Make note of these passwords — you will need them when setting up client users' devices. Or, provide client users with passwords if they are responsible for setting up their own devices.

**Figure 5-3**

A user's Person record on the Domino Server

The screenshot shows a Domino Server Person record for 'josh thorp/Jet'. The record is titled 'PERSON: josh thorp/Jet' with the email address 'josh thorp/Jet @ Jet'. The record is divided into several tabs: Basics, Mail, Work/Home, Other, Miscellaneous, Certificates, and Administration. The 'Basics' tab is selected, showing the following fields:

Name	
First name:	josh
Middle initial:	
Last name:	thorp
User name:	josh thorp/Jet Josh josh thorp
Alternate name:	
Short name/UserID:	jthorp
Personal title:	
Generational qualifier:	
Internet password:	

### ***Adding a single user***

To add a single user to the AvantGo Pylon Configuration Database:

1. Access the AvantGo Pylon Configuration Database. See “Accessing AvantGo Pylon Configuration Database” (page 53).
2. Click **Create Configuration**.
3. A new Configuration document opens.

**Figure 5-4**  
A user's  
Configuration  
document

Application	Action	Filter
<input checked="" type="checkbox"/> Mail:	Synchronize the files	My Inbox - Last 30 Days
<input checked="" type="checkbox"/> Calendar:	Synchronize the files	My Calendar - Last 2 Months
<input type="checkbox"/> Address Book:	Do Nothing	My Personal Address Book - Home & Business
<input checked="" type="checkbox"/> To Do List:	Synchronize the files	My Tasks
<input type="checkbox"/> Memo Pad: (Palm Only)	Do Nothing	My Drafts
<input type="checkbox"/> Expense: (Palm Only)	Do Nothing	Custom Expense
<input checked="" type="checkbox"/> PylonPro: Main Sample Db	Synchronize the files	Sample #1
Lookup Sample Db	Synchronize the files	Sample #2

4. Type a Lotus Notes user name or alias in the **User Name** field.
5. Enter the Pylon Application Server license key in the **Pylon License** field.

#### **Note**

This information is required. To find your license key, open the *notes.ini* file and navigate to \$PylonServerLicense=.

6. Click **Save and Close**.  
You are returned to the AvantGo Pylon Configuration Database.
7. Click **Create Configuration** to create another configuration document for another user.

For detailed instructions on how to personalize Configuration documents and how to set up mobile devices to sync to Pylon Application Server, refer to the *Setup Guide for AvantGo Pylon Application Server Client, Version 5.2*. See “Related publications” (page 16).

If your users are responsible for performing these tasks, make sure they have access to the guide.

#### **Adding a group of users**

In some cases, you may wish to add users in a group rather than individually. This approach saves administrative time; you create and maintain only one Configuration document instead of several.

All users in the group will sync their individual PIM applications (Mail, Calendar, etc.). If you are using the functionality of AvantGo Pylon Pro, all users will sync the same custom databases.

To add a group of users to the AvantGo Pylon Configuration Database:

1. In Lotus Notes, create a group of users and add users to that group.
2. Access the AvantGo Pylon Configuration Database. See “Accessing AvantGo Pylon Configuration Database” (page 53).

3. Click **Create Configuration**.
4. A new Configuration document opens.
5. Type the Lotus Notes group name in the **User Name** field.
6. Enter the Pylon Application Server license key in the **Pylon License** field.

---

---

**Note**

This information is required. To find your license key, open the *notes.ini* file and navigate to `$PylonServerLicense=`.

7. Click **Save and Close**.

You are returned to the AvantGo Pylon Configuration Database.

For detailed instructions on how to set up this Configuration document as well as how to set up mobile devices to sync to Pylon Application Server, refer to the *Setup Guide for AvantGo Pylon Application Server Client, Version 5.2*. See “Related publications” (page 16).

## Distributing Pylon Application Server Client

For users with Palm OS devices, Pylon Application Server Client installs on the device when they perform an initial synchronization. There is no separate executable.

For users with Pocket PC OS devices, there is a separate Pylon Application Server Client executable. Running the executable installs Pylon Application Server Client on the Pocket PS OS device.

The executable, *pylonserverPocketPC.exe*, is included in the compressed file, *pylonserver.zip*, you received when you purchased the product. If your users are responsible for setting up their own devices, distribute this executable to them.

For detailed instructions on how to run the executable to install Pylon Application Server Client on a Pocket PC OS device, see the *Setup Guide for AvantGo Pylon Application Server Client, Version 5.2*. See “Related publications” (page 16).

If your users are responsible for performing these tasks, make sure they have access to the guide.

## Distributing PylonSync

---

---

**Note**

These instructions apply only to users of Palm OS 5.2.x devices, for example, the Tungsten C device.

AvantGo PylonSync allows you to configure settings for Pylon Application Server directly on a mobile device. Install the PylonSync application (*psync.prc*) manually on Palm OS 5.2.x devices.

To distribute PylonSync:

1. On the Domino Server where Pylon Application Server is installed, navigate to  
C:\Program Files\AvantGo\Pylon Application Server\PalmOS.

2. Distribute a copy of the *pylonsync.prc* file to the user and advise her to double-click the file to install it on her device.

For detailed instructions on how to set up PylonSync to sync wirelessly to Pylon Application Server, see the the *Setup Guide for AvantGo Pylon Application Server Client, Version 5.2*. See “Related publications” (page 16)

## Distributing miscellaneous Palm applications

In some cases you may want to distribute Palm applications using the Install Palm Applications feature of Pylon Application Server. If you distribute Palm applications in this way, your users can obtain the applications even if they are syncing remotely, and they will not be required to do a desktop and cradle sync.

To distribute miscellaneous Palm applications:

1. Access the AvantGo Pylon Configuration Database. See “Accessing AvantGo Pylon Configuration Database” (page 53).
2. Open a user’s Configuration document.
3. Check the **Advanced Options** box to display the Install Palm Applications section.
4. In the text box under **Specify Palm Files below**, enter the full path to the *.prc* file you wish to distribute.
5. Advise the user to perform a sync to install the Palm application on her device.
6. After the user successfully syncs the *.prc* file to their device, remove from the user’s Configuration document the path to the *.prc* file.

## Monitoring users’ syncs

Access the AvantGo Pylon Log Database to view information about your users’ syncs.

To monitor users’ syncs:

1. Open Lotus Notes on any computer connected over a network to the Domino Server running Pylon Application Server.
2. Select **File|Database|Open**.  
The Open Database dialog box appears.
3. From the drop-down list, choose the server running Pylon Application Server.
4. Under **Database**, select **AvantGo Pylon Log** (*pylonlog.nsf*).
5. Click **Open**.

The AvantGo Pylon Log Database opens.

## Removing users from the Pylon License Database

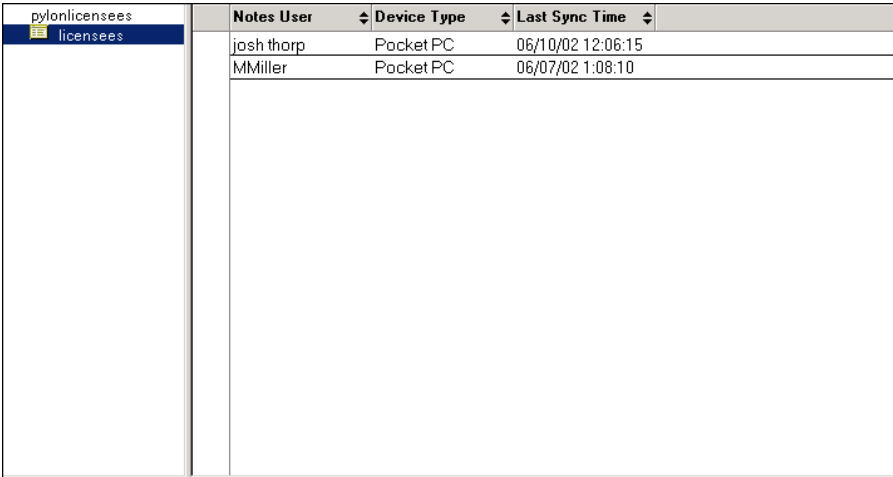
Your license allows for a specified number of client users. To allow for the maximum number of active users, replace users who are no longer syncing to Pylon Application Server from the Pylon License Database with new users.

To remove users from the Pylon License Database:

1. Open Lotus Notes on any computer connected over a network to the Domino Server running Pylon Application Server.
2. Select **File|Database|Open**.  
The Open Database dialog box appears.
3. From the drop-down list, choose the server running Pylon Application Server.
4. Under **Database**, select *PylonLicensees.nsf*.
5. Click **Open**.

The Pylon License Database opens.

**Figure 5-5**  
The Pylon License Database



pylonlicensees	Notes User	Device Type	Last Sync Time
licenses	josh thorp	Pocket PC	06/10/02 12:06:15
	MMiller	Pocket PC	06/07/02 1:08:10

6. Double-click on a defunct user name.  
The Database document opens.
7. Replace the old user name with a new one.

# Appendices

“Troubleshooting” (page 61)

“The ACL of the Pylon Configuration Database”  
(page 67)

“Variations from Lotus Notes” (page 71)





# APPENDIX A. **Troubleshooting**

---

- “Troubleshooting: installing” (page 62)
- “Troubleshooting: accessing Pylon” (page 64)
- “Troubleshooting: using Pylon” (page 65)
- “Troubleshooting: uninstalling” (page 66)

## Troubleshooting: installing

**Table A-1**  
Problems with  
installing

Problem	Solution/Explanation
<p>During installation, you get the error message, "Pylon was unable to correctly access the Avantgo server to validate your access key....."</p>	<p>Your computer is set up behind a firewall and/or uses a proxy server. Here's what to do to resolve the problem:</p> <p>IF you know that you manually authenticate to a proxy server: Contact us so that we can issue you a manually-generated license key. Send email to <a href="mailto:pylon_support@avantgo.com">pylon_support@avantgo.com</a> and provide your &lt;servername&gt;/&lt;domain name&gt;.</p> <p>IF you do NOT manually authenticate to a proxy server (OR if you are not sure): Launch Internet Explorer and go to <a href="https://pylonlicense.avantgo.com">https://pylonlicense.avantgo.com</a>.</p> <p>IF you are redirected to the avantgo.com home page: Contact us so that we can issue you a manually-generated license key. Send email to <a href="mailto:pylon_support@avantgo.com">pylon_support@avantgo.com</a> and provide your &lt;servername&gt;/&lt;domain name&gt;.</p> <p>IF you are NOT redirected to the avantgo.com home page:</p> <ol style="list-style-type: none"> <li>1. Verify that your proxy configuration is properly set up: In Internet Explorer, click <b>Tools Internet Options Connections LAN Settings</b>.</li> <li>2. Verify that your security configuration is properly set up. In Internet Explorer, click <b>Tools Internet Options Advanced</b>. Under Security, check <b>Use SSL</b> and uncheck <b>Use PCT</b> and <b>Use TLS</b>.</li> <li>3. Try running the installer again. If you continue to get the error message: Contact us so that we can issue you a manually-generated license key. Send email to <a href="mailto:pylon_support@avantgo.com">pylon_support@avantgo.com</a> and provide your &lt;servername&gt;/&lt;domain name&gt;.</li> </ol>

Problem	Solution/Explanation
<p>During installation, you get the error message, "An error occurred trying to access the pylonui.dll..."</p> <p>OR</p> <p>You need to install Pylon Application Server on a server running multiple versions of Lotus Domino or Lotus Notes.</p>	<p>For successful installation, Pylon Application Server must be able to find the location of the <i>notes.ini</i> file, the Lotus Notes executables directory (where <i>notes.exe</i> resides), and the Palm directory (where <i>hotsync.exe</i> resides).</p> <p>If you are running multiple versions of Lotus Notes and/or have multiple <i>notes.ini</i> files, either locally or on a network drive, make sure your machine's environment variables point to only one <i>notes.ini</i> file. You also may need to correct the registry entries to reflect the locations of the files listed above.</p> <p><b>Caution:</b> If you edit your registry incorrectly, you may cause serious problems that may require you to reinstall your operating system. Before you modify your registry, back it up and make sure that you understand how to restore it if a problem occurs. Edit your registry at your own risk.</p> <p>To modify the machine's environment variables:</p> <ol style="list-style-type: none"> <li>1. On Windows NT, select <b>Start Settings Control Panel  System Properties Environment</b>. On Windows 2000 and XP, select <b>Start Settings Control Panel System Advanced Environment Variables</b>.</li> <li>2. Under the <b>Path</b> variable, make sure there is only one <i>notes.ini</i> file listed.</li> </ol> <p>To modify the machine's registry settings:</p> <ol style="list-style-type: none"> <li>1. Log on to the machine as administrator.</li> <li>2. Use the Microsoft Windows <b>Find</b> feature to verify the location of the <i>notes.exe</i>, <i>hotsync.exe</i>, and <i>notes.ini</i> files.</li> <li>3. Click <b>Start Run</b>, then open <i>regedit.exe</i>.</li> <li>4. Under <b>HKEY_LOCAL_MACHINE\Software</b> and <b>HKEY_CURRENT_USER\Software</b>, navigate and correct the paths to the files, for example, Datapath: C:\Lotus\Domino\Data\, and Path: C:\Lotus\Domino\.</li> <li>5. Try the Pylon Application Server installer again.</li> </ol> <p><b>Note:</b> In some cases you may need to completely uninstall the Palm OS software, reinstall it, then install Pylon Application Server.</p>

## Troubleshooting: accessing Pylon

**Table A-2**  
Problems with  
accessing Pylon

Problem	Solution/Explanation
<p>When attempting to open a Configuration document in the AvantGo Pylon Configuration Database, you encounter an Execution Security Alert dialog box.</p>	<p>The Execution Security List is part of the Domino Security model, and cannot be bypassed without user intervention. The Execution Security Alert dialog box is alerting you that you are about to perform an operation using an object signed by a person or organization that Lotus Notes does not trust, or with an organization that does not have cross certification with your Domino Domain.</p> <p>To solve this problem, click <b>Trust Signer</b> when you encounter the dialog box. You should only have to do this once.</p> <p><b>Note:</b> For more information about the Execution Security List or the Domino Security model, see your Lotus Notes documentation.</p>
<p>When attempting to open a Configuration document in the AvantGo Pylon Configuration Database, you encounter a Create Cross Certificate dialog box.</p>	<p>The Create Cross Certificate dialog box is alerting you that you are about to perform an operation with a person or organization that Lotus Notes does not trust, or with an organization that does not have cross certification with your Domino Domain.</p> <p>To solve this problem, click <b>Yes</b> when you encounter the dialog box. You should only have to do this once.</p> <p><b>Note:</b> For more information about the Execution Security List or the Domino Security model, see your Lotus Notes documentation.</p>

## Troubleshooting: using Pylon

**Table A-3**  
Problems with using  
Pylon

Problem	Solution/Explanation
<p>You upgraded to a newer version of Lotus Domino and Pylon Application Server no longer works properly.</p>	<ol style="list-style-type: none"> <li>1. Save your existing AvantGo Pylon Configuration Database (<i>pyloncfg.nsf</i>), typically found at C:\Lotus\Domino\Data, to a new location.</li> <li>2. Uninstall Pylon Application Server. See “Uninstalling Pylon Application Server” (page 35).</li> <li>3. Reinstall Pylon Application Server. See “Installing Pylon Application Server” (page 33).</li> <li>4. Replace the newly-installed AvantGo Pylon Configuration Database with your existing one.</li> </ol>
<p>A user with a Palm OS 4.0 device previously able to receive and view Mail attachments can no longer.</p>	<p>The user accidentally may have deleted the on-device file, <i>Mail.prc</i>. If this is the case, do the following:</p> <ol style="list-style-type: none"> <li>1. On the Domino Server where Pylon Application Server is installed, navigate to C:\Program Files\AvantGo\Pylon Application Server\PalmOS.</li> <li>2. Distribute a copy of the <i>Mail.prc</i> file to the user and advise her to double-click the file to re-install it on her device.</li> </ol>

## Troubleshooting: uninstalling

**Table A-4**  
Problems with  
uninstalling

Problem	Solution/Explanation
After uninstalling Pylon Application Server, the Lotus Domino Server console shows the error message, "Error attempting to load or run Pylon.exe: Unable to invoke program."	Navigate to C:\Lotus\Domino\notes.ini and manually delete the following lines: <ul style="list-style-type: none"><li>■ \$PylonServerLicense=</li><li>■ \$PylonSSLCertificatePath=</li><li>■ \$PylonSSLCertificatePassword=</li><li>■ \$PylonBuildNumber=</li></ul> Also, if you added Pylon as a ServerTask, delete that entry as well.

# APPENDIX B. **The ACL of the Pylon Configuration Database**

---

---

- “Understanding the Access Control List” (page 68)

## Understanding the Access Control List

The Access Control List (ACL) for the AvantGo Pylon Configuration Database is set up to facilitate testing of the AvantGo Pylon Conduit. Review and modify it as necessary to conform to your local standards and conventions.

---

---

### Note

For client users using AvantGo Pylon Application Server to synchronize custom Lotus Notes databases and applications, Pylon Application Server supports the ACL for each individual database.

The following table describes who can access the AvantGo Pylon Configuration Database and what level of authority they have.

**Table B-1**

The ACL of the AvantGo Pylon Configuration Database

Group	Group type	Privileges	Additional Information
Default	Author (Unspecified)	Create Documents	Allows Author Access to all authenticated users. In production, this would typically be changed to No Access.
Administrators	Manager (Mixed Group)	All Rights	Typical Notes configuration
Local Domain Servers	Manager (Server Group)	All Rights	Typical Notes configuration
Other Domain Servers	No Access (Server Group)	No Read public documents No Write public documents	Typical Notes configuration
Anonymous	No Access (Unspecified)	No Read public documents No Write public documents	Prevents access by unauthenticated Web clients

<b>Group</b>	<b>Group type</b>	<b>Privileges</b>	<b>Additional Information</b>
Pylon Administrators	Manager (Person Group)	All Rights	Add administrators of the AvantGo Pylon Configuration Database to this group.
Pylon Users	Author (Person Group)	Only Create Documents & Delete Documents	Add users to this group.
Pylon Designers	Designer (Person Group)	All Rights	You should leave this group empty. Changing the design of the AvantGo Pylon Configuration database may interfere with the operation of AvantGo Pylon ServerSync as well as with AvantGo Pylon Conduit.



## APPENDIX C. **Variations from Lotus Notes**

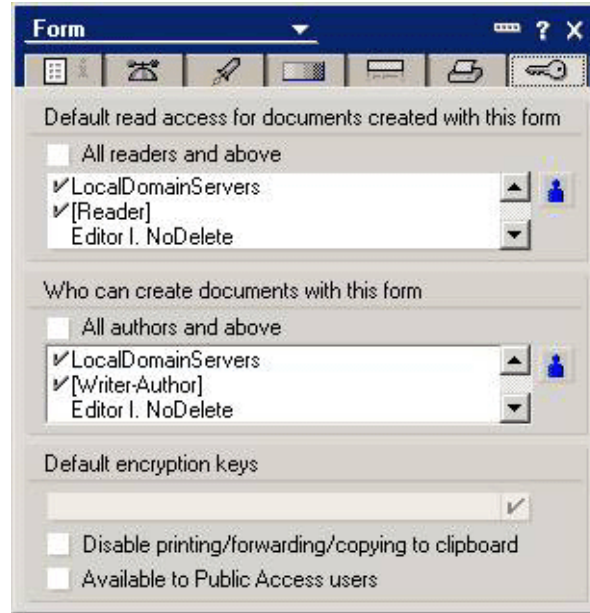
---

AvantGo Pylon Application Server does not enforce Lotus Notes' restrictions on who can create documents and who can access the server, and does not update amended-by lists with users' names.

### **Setting up form level create access**

In Lotus Notes a designer may limit which users can create documents using a form by deselecting **All authors and above** in the Lotus Notes Form Dialog Box, then selecting only those groups, users, and roles that can create documents using the form. Pylon Application Server does not enforce this restriction.

**Figure C-1**  
The Lotus Notes  
Form dialog box



## Restricting access to servers

### Note

The information in this section only applies to Pylon Application Server, multi-server support.

In Lotus Notes, the administrator may restrict access to a server on a per-user basis. With Pylon Application Server, the access of the Pylon Application Server Server ID governs access to other servers. An individual client user's access to other servers will not be checked. To restrict access to another server, it may be necessary to remove Pylon Application Server from the LocalDomainServers group. This may require changes to the ACL, the Reader Names field, and the Author Names field.

## Changes to the \$UpdatedBy text list field

### Note

The information in this section only applies to Pylon Application Server, multi-server support.

Lotus Notes maintains a text list field named \$UpdatedBy. When a document is saved, the user's name is appended to the list. When using Pylon Application Server, instead of the user name being appended to the list, the name of Pylon Application Server is appended.

---

# Index

## Symbols

\$PylonServerLicense 55, 56  
\$PylonSSLCertificatePassword 42  
\$PylonSSLCertificatePath 42  
\$UpdatedBy text list field 72

## A

Access Control List 68  
access key

- obtaining 30
- using 33
- validation error 62

accessing Pylon

- troubleshooting 64

ACL, *see* Access Control List  
Administrators group 68  
AIX 20  
All authors and above checkbox 71  
Anonymous group 68  
AS/400 20  
Author Names field 72  
AvantGo Pylon Application Server

- about 20
- access key
  - obtaining 30
  - using 33
- architecture 21
- as proxy 49
- distributing Palm applications 57
- downloading 30
- installing 33
- license key
  - location 55, 56
  - obtaining 30
- removing users 58

running 51  
security 39–43  
setting up users 53  
starting 51  
stopping 51  
uninstalling 35  
upgrading 32  
working with AvantGo Pylon Pro 49  
working with Lotus Notes 71  
AvantGo Pylon Application Server Client

- about 22
- distributing 56
- installing 56

AvantGo Pylon Conduit, about 22  
AvantGo Pylon Configuration Database

- about 22
- adding group of users 55
- adding single user 54
- adding users 53–56
- deleting 35
- opening 53

AvantGo Pylon Log Database 57  
AvantGo Pylon Pro

- creating database access 49
- setting up users 49

AvantGo PylonSync

- distributing 56

## C

Certicom 38  
certificate request 40  
Close Down Lotus Notes dialog box 33  
configuration database, *see* AvantGo Pylon Configuration Database  
conventions 15  
corporate download site 14

Create Cross Certificate dialog box 64

## D

Default group 68  
document properties, checking 50  
downloading Pylon Application Server 30

## E

error message  
    Pylon unable to validate access key 62  
    pylonui.dll 63  
    Serial Number is Not Valid 33  
Execution Security Alert dialog box 64  
Execution Security List 64

## F

firewalls, opening 49  
Form dialog box 72  
formatting conventions 15

## I

IBM, *see* AIX, or AS/400, or S/390  
installing  
    Pylon Application Server 33  
    Pylon Application Server Client 56  
    troubleshooting 62  
Internet Explorer, *see* Microsoft Internet Explorer  
Internet password 54

## L

License Agreement dialog box 33  
license key  
    location 55, 56  
    obtaining 30  
Linux 20  
LocalDomainServers group  
    ACL rights 68  
    adding Pylon Application Server 49  
    removing Pylon Advanced Server 72  
log file, reqtool 40  
Lotus Domino  
    running multiple versions 31  
    system requirements 25  
Lotus Notes  
    Internet password 54  
    running multiple versions 31

    security model 20, 54  
    system requirements 25  
Lotus Notes Form dialog box 72

## M

Mail attachments  
    supported 24  
    troubleshooting 65  
*Mail.prc* 65  
Microsoft Internet Explorer 25  
mobile device  
    deleting software 35  
    installing software 56  
multi-server synchronization 20

## N

Network HotSync protocol 49  
Notes, *see* Lotus Notes  
npylon.exe  
    definition 34  
    location 34

## O

on-device software  
    deleting 35  
    installing 56  
OtherDomainServers group 68

## P

Palm applications, distributing to users 57  
Palm OS 5.2 device, syncing 56  
Palm OS device  
    deleting software 35  
    distributing Palm application 57  
    installing software 56  
password, private key 40  
Person record  
    adding user name 54  
    Internet password 54  
Pocket PC OS device  
    deleting software 35  
    installing software 56  
Port 14238 39  
Port 14443 39  
private key  
    log file 40  
    password 40

- program file
  - installing 34
  - location 34
- proxies, setting up 49
- Public Access 49
- Pylon Administrators group 69
- Pylon Application Server Client, *see* AvantGo Pylon Application Server Client
- Pylon Conduit, *see* AvantGo Pylon Conduit
- Pylon Configuration Database, *see* AvantGo Pylon Configuration Database
- Pylon Designers group 69
- Pylon License Database
  - location 34
  - removing users 58
- Pylon Pro, *see* AvantGo Pylon Pro
- Pylon Users group 69
- Pylon, *see* AvantGo Pylon Application Server
- pyloncfg.nsf
  - about 34
  - deleting 31, 32, 35
  - location 34
  - see also* AvantGo Pylon Configuration Database
- PylonLicensees.nsf
  - location 34
  - removing users 58
- pylonlog.nsf 57
- pylonServer.exe
  - downloading 30
  - installing 33
- pylonserver.zip, contents 30
- pylonserverPocketPC.exe
  - distributing 56
  - obtaining 30
- pylonui.dll 63

## R

- Reader Names field 72
- reqtool log file 40

## S

- S/390 20
- security
  - enabling 39–43
  - opening Port 14238 39
  - opening Port 14443 39
  - overview 38
- servers, restricting access 72
- Solaris 20
- SSL, *see* security

- synchronization, multi-server 20
- syncs, monitoring 57
- system requirements 25

## T

- TCP/IP
  - connection
    - security 20
  - network
    - syncing 20
  - Port 14238 49
  - Port 14443 49
- troubleshooting
  - accessing Pylon 64
  - installing 62
  - Mail attachments 65
  - uninstalling 66
  - using Pylon 65
- Trust Signer button 64

## U

- uninstalling
  - Pylon Application Server 35
  - Pylon Application Server Client 35
  - troubleshooting 66
- upgrading 31, 32
- using Pylon
  - troubleshooting 65

