



**Version 1.1**

# **OpenTV Account™ Getting Started Guide**

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OpenTV Account 1.1 Getting Started Guide  
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OpenTV, Inc  
401 East Middlefield Road  
Mountain View, California  
94043-4005  
USA

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5,903,264, 5,886,733, 5,884,033, 5,870,084, 5,867,208, 5,841,953, 5,828,370, 5,825,884, 5,819,034, 5,778,406, 5,764,275, 5,734,413, 5,651,078, 5,638,113, 5,625,693, 5,581,706, 5,566,287, 5,563,648, 5,548,532, 5,539,920, 5,526,035, 5,519,433, 5,448,568, and 5,343,239.

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# Preface

## Documentation overview

OpenTV Account 1.1 is a single sign-on e-wallet and e-receipt solution for interactive TV that unlocks the value and potential of t-commerce for network operators. This manual provides instructions on how to install and configure OpenTV Account 1.1.

### Audience

This guide is intended for platform operators who wish to install OpenTV Account for use in managing t-commerce activity. It assumes familiarity with the following, which are not documented in this guide:

- ◆ OpenTV operating environment
- ◆ Microsoft Internet Service Manager
- ◆ COM/COM+, ASP, and MFC
- ◆ HTTP 1.1 (including proxies)
- ◆ E-Commerce Markup Language (ECML)

### Related documents

The following is a list of related OpenTV documentation:

- ◆ [\*OpenTV Account 1.1 Application Developer's Guide\*](#)
- ◆ [\*OpenTV Account 1.1 Administration Server Guide\*](#)
- ◆ [\*OpenTV Account 1.1 Implementation Guide\*](#)

## Conventions

This manual uses the following icons to alert you to special information:

- ❖ **NOTE:** Notes contain important information that is not procedurally dangerous.

---

- **CAUTION:** This is a documentation alert. It contains information about unusual behavior of a utility, command, or procedure. Typically, one of the following key words introduces the cautionary text: Alert, Caution, or Caveat.

---

- ✕ **SEE ALSO:** This is a cross reference to related information.

---

The following describes the type and syntax elements used in this manual.

**TABLE 1:**     *Typeface and syntax conventions*

This typeface or syntax	is used to indicate the following	Example
AaBbCc123	The names of tools/programs, commands, files, and directories; on-screen computer output; labeled on-screen interface items; any text which must be entered or coded literally as given; any value that is returned or must be provided as given.	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files.
<i>AaBbCc123</i>	Function parameters; references to items which need to be replaced with an actual name or value; chapter titles and sections.	To delete a file, type <code>rm filename</code> .
[ ]	Optional elements are contained within square brackets	<code>otv_tool [option]</code>
{ }	Groupings of elements are enclosed in braces	<code>{ONE   THE_OTHER}</code>
...	Indicates the optional repeating of the previous syntactic element	<code>otv_tool [option]...</code>
	Logical OR; in syntax statements, indicates a choice of items	<code>{ONE   THE_OTHER}</code>



# 1 Understanding OpenTV Account

*This chapter provides a high-level overview of OpenTV Account.*

## Overview

OpenTV Account is an account management system for interactive TV networks. It provides single sign-on, e-wallet, and e-receipt capabilities to interactive TV applications. It enables interactive TV applications to access customer information contained in a network operators business support system, while making t-commerce transactions easy and secure.

This chapter contains the following sections:

- ◆ *Understanding OpenTV Account*
- ◆ *Understanding OpenTV Account features*
- ◆ *Understanding OpenTV Account users*
- ◆ *Understanding OpenTV Account components*

## Understanding OpenTV Account

OpenTV Account connects t-commerce applications with retailers' commerce engines and network operators' business support systems, including subscriber management, customer care, and billing systems.

OpenTV Account can be used to provide network operators and viewers with access to the following information:

- ◆ viewer information, including contact information, preferences, and e-wallet information
- ◆ e-receipt information, including status of pending orders and records of past purchases

### Single sign-on

With electronic-based commerce, or e-commerce, retailers have a direct relationship with customers. In most cases, when a customer wants to make a purchase, the customer must first register with the retailer. During the registration process, the customer provides information, such as a billing address and credit card information.

Once the customer is registered, the retailer provides the customer with a login ID and password. This login ID and password must be entered before making purchases. For every retailer the customer purchases merchandise from, the registration process is repeated. It is the customer's responsibility to keep track of all login IDs and passwords.

With OpenTV Account, this process is simplified through the use of a single sign-on.

To use OpenTV Account-enabled applications, the viewer enters personal information one time. This can be done through a registration application provided by the network operator, or by telephoning a call center. Once the viewer has registered with OpenTV Account, this information is retained for any OpenTV Account transaction on the network, regardless of the host t-commerce application.

### E-receipts

OpenTV Account captures e-receipts for orders so viewers can easily access information about purchases made across all t-commerce services. This promotes viewer confidence, while simultaneously controlling customer care costs.

Network operators can also access information about viewer purchases. This enables them to gain information about buyer trends, which, in turn, allows them to better target products and services for individual viewers.

In addition, network operators can track orders that viewers make through the use of e-receipts. If a viewer has a problem with an order but cannot remember which retailer the purchase was made from, the network operator can access the order record and direct the viewer to the appropriate retailer.

With OpenTV Account, there is no direct relationship between viewer and retailer. Retailers can only access viewer information through a business agreement with the network operator. The network operator can accurately bill retailers based on the transaction information logged by OpenTV Account.

## Keywords

OpenTV Account keywords allow information to be exchanged between a retailer and a viewer during a t-commerce transaction. OpenTV Account uses HTTP to exchange data between application entities. Each HTTP request sent through OpenTV Account contains one or more keywords. Each keyword represents data, as well as an action that should be applied to that data.

OpenTV Account intercepts each message being exchanged between the client device and the retailer, parses the message for keywords, takes the appropriate action on the keyword, and sends the message on with the necessary information.

Keywords can be embedded in any type of document, including, but not limited to, HTML, XML, or plain text. Because OpenTV Account performs a simple string search to process keywords, there is no message structure that needs to be enforced within an application.

## Transactions

During a typical transaction, the client sends one or more requests to the server. In turn, the server sends one or more responses to the client. Each response contains a copy of the original request. Each request and response is sent as an HTTP message.

HTTP is a stateless protocol. As such, each HTTP request is unique, and has no record of related previous or future requests. OpenTV Account links related HTTP requests by using a unique transaction session identifier that is included with all requests and responses sent during a transaction session.

HTTP requests can be sent via VBScript or JavaScript. HTTP `POST` and `GET` requests may be sent in a request body, or in a request header.

## Understanding OpenTV Account features

OpenTV Account provides the following major features:

- ◆ **Individual viewer registration**  
Viewers can register via a call center or a set-top box based self-service interface. Registration includes entering personal data, e-wallet information, and personal address book entries to simplify online purchases. Viewer information is stored in a secure database to protect the viewer's privacy.
- ◆ **Flexible single sign-on**  
Viewers can sign-on once using a combination of smart-cards, nicknames, and PINs. This means a viewer only needs to remember a single PIN for all iTV applications.
- ◆ **Automated viewer detail insertion**  
Viewers do not need to enter their personal details, such as name, address, and credit card number, for every transaction. This simplifies the transaction process and reduces errors, particularly when a viewer does not have access to a keyboard. Viewer details are inserted by replacing keywords within the transaction messages.
- ◆ **Message logging**  
Messages can be logged to provide an audit trail and to support billing and business intelligence. Message logging can be limited to headers to reduce storage overhead.
- ◆ **E-receipt capture and management**  
E-receipts provide an audit trail of all viewer purchases. Viewers can access their own purchase history through a self-service interface.
- ◆ **Synchronous and asynchronous transaction forwarding**  
OpenTV Account is able to forward messages to an application server either synchronously for normal processing or asynchronously. Asynchronous support provides greater scalability which is necessary for iTV applications.
- ◆ **Secure message forwarding**  
OpenTV Account is able to forward HTTP messages to and from application servers securely using SSL bridging or VPNs.

## Understanding OpenTV Account users

The following parties and elements interact with OpenTV Account:

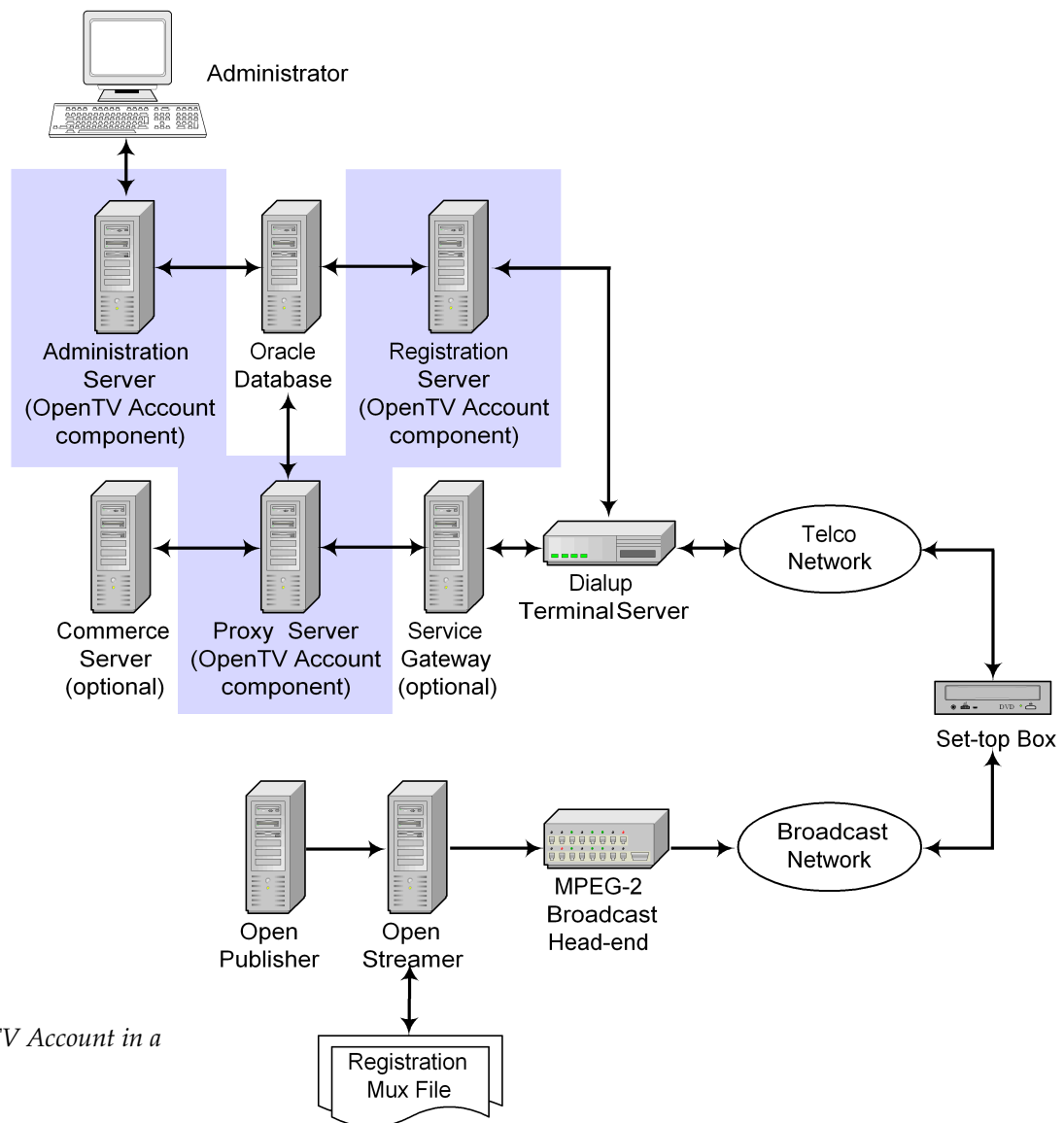
- ◆ **Retailers (content providers)**  
Retailers operate storefront selling products and services to viewers. These storefronts are applications that use OpenTV Account to access the viewers and to add value to the sales process.
- ◆ **Platform operators**  
The platform operator is the operator of OpenTV Account. Typically, this is the network operator of the network on which OpenTV Account is deployed. However, in some cases it may be a joint venture or a separate organization.
- ◆ **Network operators**  
The network operator is the operator of the digital TV network. This may be a satellite operator or cable MSO.
- ◆ **Subscribers**  
The subscriber is the viewer within the household who subscribes to the pay TV digital service (or set-top box contract in the case of a free-to-air service). The subscriber is known to the network operator, and has privileges that other viewers within the household do not have.
- ◆ **Viewers**  
Viewers are the end consumers of the applications. A household will have many viewers, one of which will be the named subscriber to the pay-TV service of the network operator.
- ◆ **Applications**  
Applications are client-device interactive applications. These may be OpenTV EN applications or a set of HTML pages. The application issues HTTP requests to the target host via the OpenTV Account proxy. A content provider would normally create applications.
- ◆ **Target hosts**  
The target host is the HTTP server to which applications can send t-commerce transactions.

## Understanding OpenTV Account components

The fundamental technologies OpenTV Account is based on include Microsoft Internet Service Manager (IIS), COM/COM+, ASP, HTTP 1.1 (including proxies), and E-Commerce Markup Language (ECML).

The OpenTV Account module consists of the OpenTV Account Proxy, OpenTV Account Registration Server, OpenTV Account Administration Server, and database components. An additional component, the OpenTV Sample Shop, provides a sample iTV application.

The following figure shows how components interact.



**FIGURE 1-1:** *OpenTV Account in a broadcast system*

## Understanding the Proxy

The OpenTV Account Proxy is the proxy server that monitors and modifies messages sent between the set-top box application and the content provider, or retailer. The Proxy depends upon IIS and various COM objects to perform its task.

## Understanding the Registration Server

The OpenTV Account Registration Server consists of a client and server. This application provides an interface between the viewer and database, allowing the viewer to register, modify, or delete their data in OpenTV Account.

The Registration Server consists of two subcomponents:

- ◆ The OpenTV Account `AccntRegClient` is an SDK application that connects to the server. Source code for this application is provided.
- ◆ The OpenTV Account `AccntRegServer` is a collection of ASP pages for IIS that connect to the database. These pages can be modified for your environment.

## Understanding the Administration Server

The OpenTV Account Administration Server is an web server and series of .NET Active Server Pages that allow a network operator to manage OpenTV Account and subscriber information.

## Understanding the database components

The Oracle 9i Server is a principle, underlying element of the OpenTV Account application. OpenTV Account relies on the Oracle database to store configuration parameters, interactive applications, and subscriber information. OpenTV Account's database schema has been developed to run on the Oracle 9i Server.

## Understanding the Sample Shop

OpenTV Account ships with a sample iTV application called the Sample Shop. The Sample Shop consists of:

- ◆ The OpenTV Account Sample Shop Client connects to the server using transaction keywords to perform t-commerce transactions. The Sample Shop Client is an OpenTV Publisher application, consisting of OML pages.
- ◆ The OpenTV Account Sample Shop Server includes modifiable ASP pages that interface with the Sample Shop database.

You can use the Sample Shop iTV application to test OpenTV Account, and as a template for other iTV applications.





## 2 Installing OpenTV Account

*This chapter details installation hardware and software requirements and explains how to install and register OpenTV Account.*

### Overview

The installation consists of the OpenTV Account Proxy, OpenTV Account Registration Server, OpenTV Account Administration Server, and OpenTV Account Sample Shop.

This chapter includes the following sections:

- ◆ *Understanding OpenTV Account installation requirements*
- ◆ *Understanding installation prerequisites and dependencies*
- ◆ *Getting ready to install OpenTV Account*
- ◆ *Starting the installation process*
- ◆ *Installing the OpenTV Account Proxy*
- ◆ *Installing remaining components*
- ◆ *Completing the installation*
- ◆ *Understanding the directory structure of installed components*

## Understanding OpenTV Account installation requirements

### Information requirements

Before installing OpenTV Account, you must have the IP address and host name for the OpenTV Account Proxy. You must also have the IP addresses and host names for OpenTV Gateway and Commerce Server (or equivalent components).

### Software requirements

#### Required software

The following software is required to install and run OpenTV Account:

- ◆ Oracle 9i Server and Client Software
- ◆ Windows 2000 Server with Service Pack 2
- ◆ Microsoft Internet Explorer 5.5 or higher
- ◆ Microsoft Internet Information Server (IIS) 5.0 or higher
- ◆ Microsoft Data Access Components (MDAC) 2.7 or higher
- ◆ Microsoft .NET Framework
- ◆ Microsoft Messaging and Queuing Services (MSMQ)

#### Recommended software

OpenTV recommends the following also be installed and configured prior to installing OpenTV Account:

- ◆ OpenTV Publisher 1.3
- ◆ OpenTV Streamer 2.0 or later
- ◆ OpenTV Gateway 1.1.x or higher, or another HTTP library, such as the OpenTV HTTP Extension for OpenTV Core
- ◆ OpenTV SDK 3.0 with EN2.2B06 or later

### Hardware requirements

The OpenTV Account database runs on a single instance of a Relational Database Management System (RDMS). For scalability and availability, this RDMS should be installed on a cluster with a parallel server configuration.

OpenTV Account runs on Oracle 9i with real application clustering. Oracle can be installed on either a Windows NT/2000 based cluster, or on a UNIX based cluster. A standard configuration consists of a two-node cluster, with one or two processors in each node. A clustered environment is recommended to provide the scalability required by iTV applications.

The database servers should be installed in a network that is separate from incoming set-top box traffic in order to protect the security and performance of the servers.

**Minimum requirements**

Each machine running an OpenTV Account component must meet the following minimum requirements:

- ◆ Pentium III 500 MHz processor
- ◆ 27 Mb free space on the hard drive
- ◆ 128 Mb memory
- ◆ At least one CD drive on each machine

Windows 2000 Server supports up to four CPUs per machine.

Additional free hard disk space is required if you are installing OpenTV Account over a network.

The set-top box must have the OpenTV runtime version EN2.2B06 or later installed. This is required to run applications.

## Understanding installation prerequisites and dependencies

Since the OpenTV Account Proxy (web proxy) must be installed on a Windows 2000 machine by itself, the OpenTV Account installation requires a minimum of two PCs. Other OpenTV Account components may be installed on the same, or separate, Windows 2000 PCs.

Whether you install OpenTV Account on two, or multiple machines, the figure below shows the dependencies for each component, and which components are installed by the OpenTV Account install shield.

Table 1: Server dependencies and install shield installs.

Machine	Server	IIS	MSMQ	.NET	Oracle client	VBScript	Web control	MDAC 2.7
Machine1	Proxy	X	X		X	X		X
Machine2	Registration Server	X			X	X		X
Machine3	Administration Server	X		X	X	X	X	X
Machine4	Sample Shop	X						
<b>Install shield?</b>		<b>No</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>

All installations require that Microsoft Internet Information Service (IIS), MDAC 2.7, and the Oracle 9i client are installed. In addition, the OpenTV Account Proxy requires that Microsoft Messaging and Queuing (MSMQ) is installed.

IIS and MSMQ are available on the Microsoft Windows 2000 installation disk. For information on how to install these services, see the Microsoft Windows 2000 installation instructions.

The Oracle 9i Database package includes the Oracle client installation. OpenTV Account relies on the Oracle OLE DB Provider to communicate with the Oracle 9i Server. If you customize your Oracle client installation, make sure the installation includes the Oracle OLE DB Provider. For information on installing Oracle components, consult Oracle's documentation. Consult your database administrator for the availability of the Oracle 9i Server, which is required for hosting the OpenTV Account database. For information on configuring the Oracle client for OpenTV Account, refer to Appendix A, *Configuring for OpenTV Account*.

Web control, VBScript, MDAC 2.7, and .NET utilities installations are installed automatically by the OpenTV Account install shield.

## Getting ready to install OpenTV Account

The installation procedure installs each of the following components:

- ◆ OpenTV Account Proxy

The OpenTV Account Proxy is the web proxy server. It must be installed on a network-connected Windows 2000 PC by itself.

- ◆ OpenTV Account Registration Server

The Registration Server may be installed on its own Windows 2000 network-connected PC, or may be installed together with other OpenTV Account components. The Registration Server consists of two subcomponents:

1. `AccntRegClient` — an SDK application that requires SDK 3.0 with EN2.2B06 or later
2. `AccntRegServer` — ASP pages that require Microsoft IIS

These subcomponents may be installed together with other OpenTV Account components, or on their own Windows 2000 network-connected PCs.

- ◆ OpenTV Account Administration Server

The Administration Server may be installed on its own Windows 2000 network-connected PC, or may be installed together with other OpenTV Account components.

- ◆ OpenTV Sample Shop

The Sample Shop may be installed on its own Windows 2000 network-connected PC, or may be installed together with other OpenTV Account components. The Sample Shop consists of two subcomponents:

1. Sample Shop Client — a sample client that requires OpenTV Publisher 1.3
2. Sample Shop Server — ASP pages that require Microsoft IIS

These subcomponents may be installed together with other OpenTV Account components, or on their own Windows 2000 network-connected PCs.

### Before you begin installation

Before you install OpenTV Account 1.1, remove any installation of OpenTV Account. To use the Windows 2000 program removal utility, go to:

Start -> Settings -> Control Panel -> Add/Remove Programs

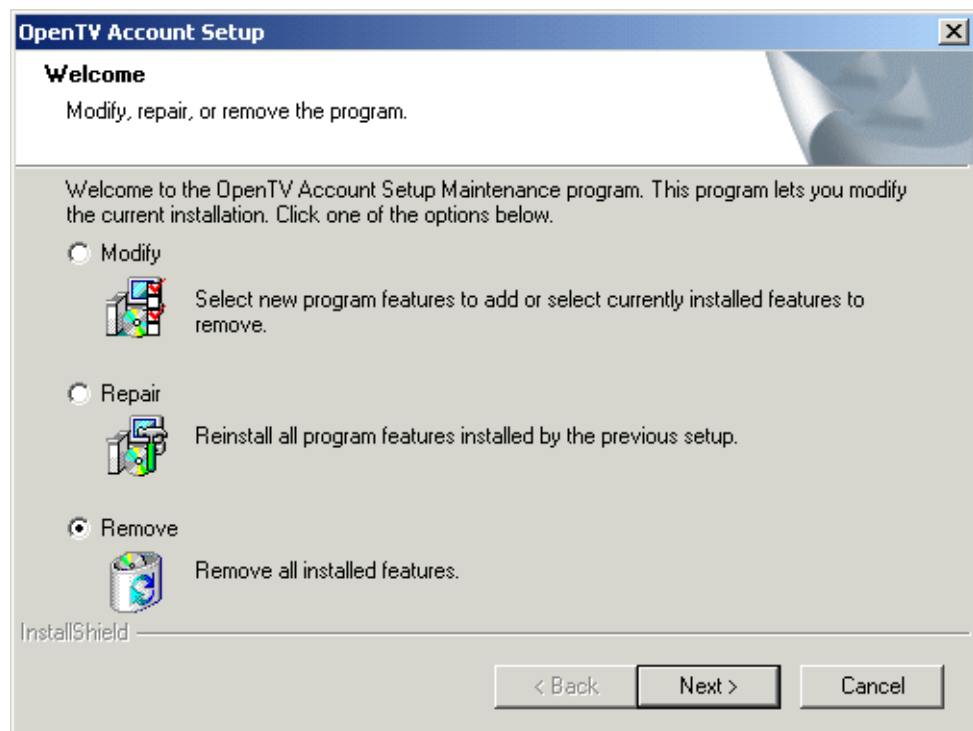
Remove any existing OpenTV Account installations.

## Starting the installation process

Insert the OpenTV Account CD into your CD drive. In the root directory of the OpenTV Account installation CD is the file `setup.exe`. Double-click this file to start the install shield for OpenTV Account.

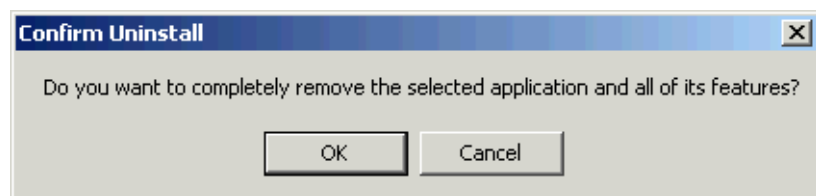
- **CAUTION:** When installing the OpenTV Account components, be sure you are logged on as administrator and your logon domain is the local (machine name) domain.

If the setup program finds any of the OpenTV Account components already installed, you are asked to remove the current installation. The InstallShield displays the Account Setup screen below.



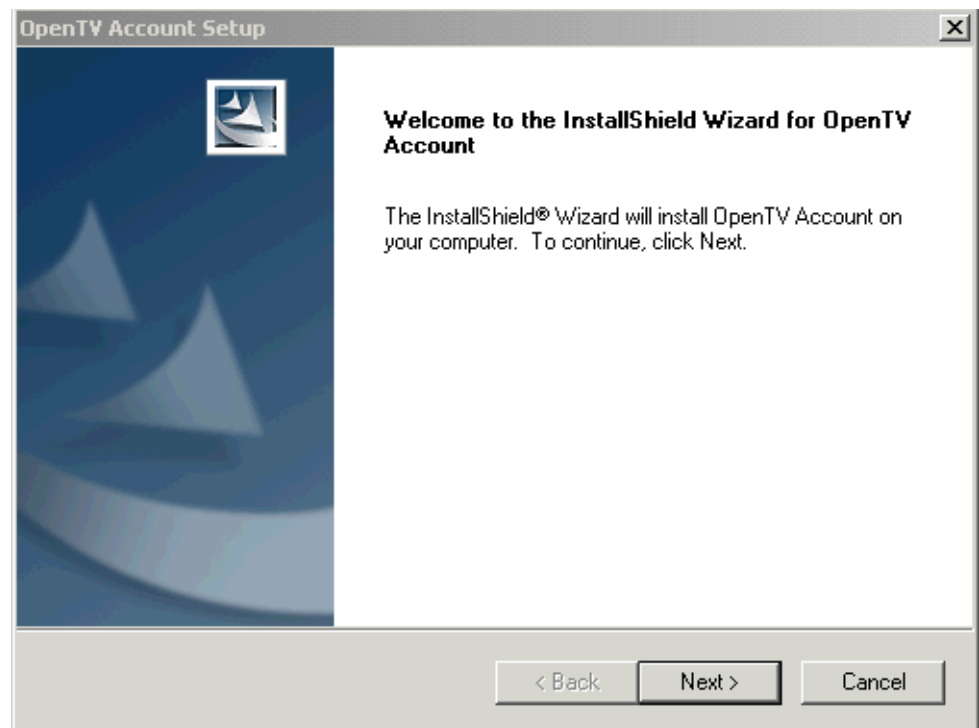
**FIGURE 2-1:**  
*OpenTV Account Setup: Modify,  
repair, or remove a program*

Choose **Remove** and click **Next**. A confirmation screen displays; click **OK**.



**FIGURE 2-2:**  
*OpenTV Account Setup: Confirm  
Uninstall*

If there are no OpenTV Account components installed on the current machine, a welcome window appears.

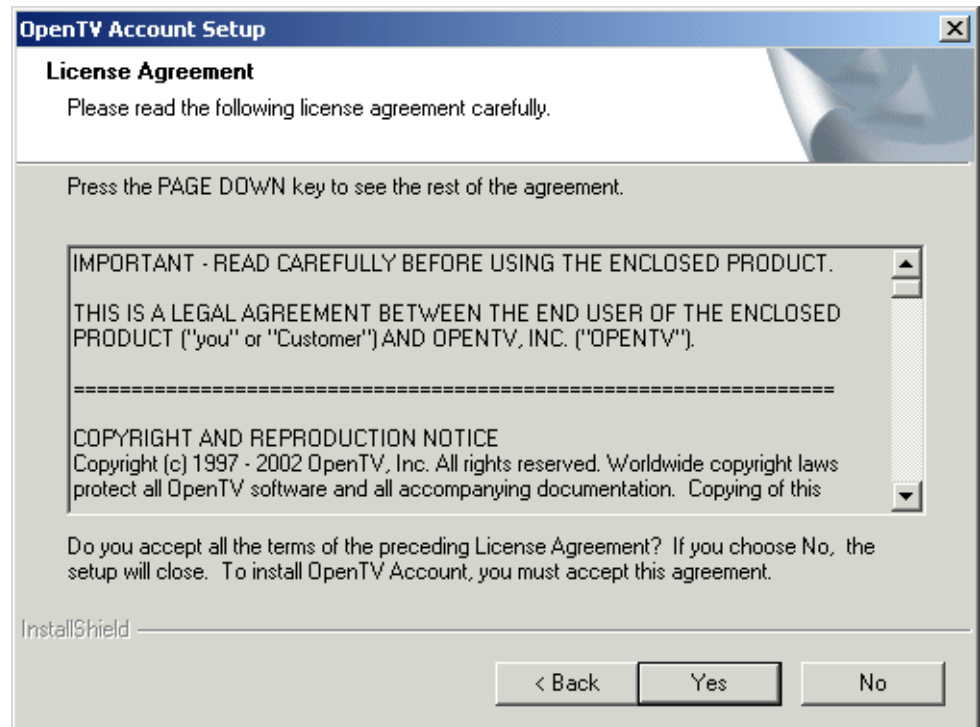


**FIGURE 2-3:**  
*OpenTV Account Setup:*  
*Welcome*

## Installing the OpenTV Account Proxy

To install the OpenTV Account Proxy:

1. Continue the installation from the welcome window by clicking **Next**. A series of Account Setup screens guide you through the installation process.
2. The first Account Setup screen is the OpenTV license agreement. If you agree to the terms set forth in the license, click **Yes** and continue. If you do not agree, click **No** to exit the installation.

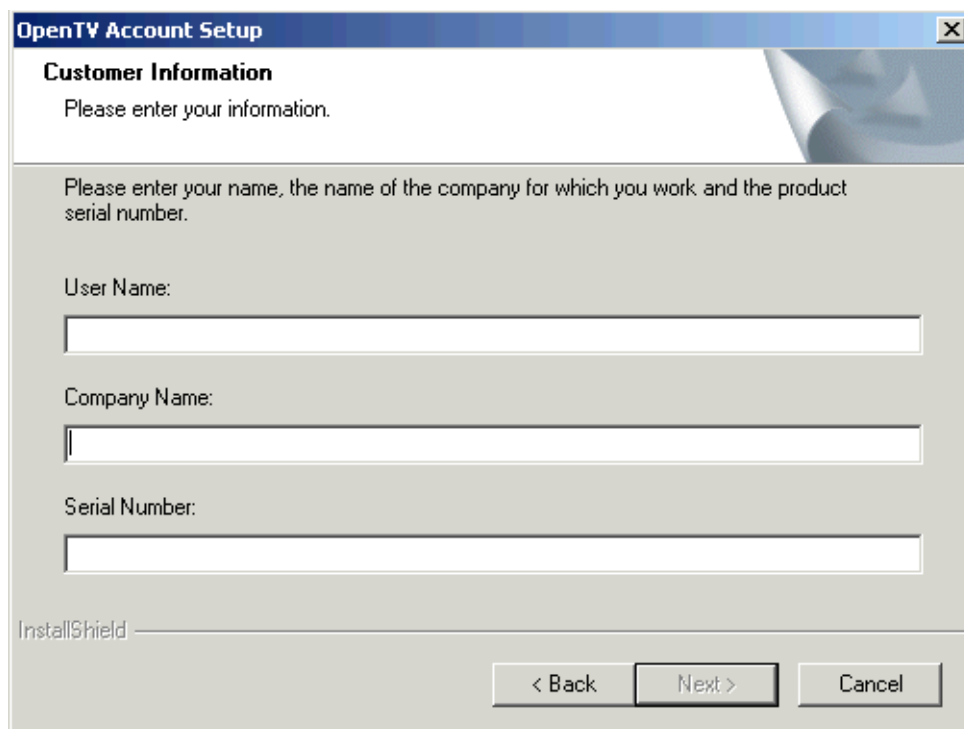


**FIGURE 2-4:**

*OpenTV Account Setup: License Agreement*



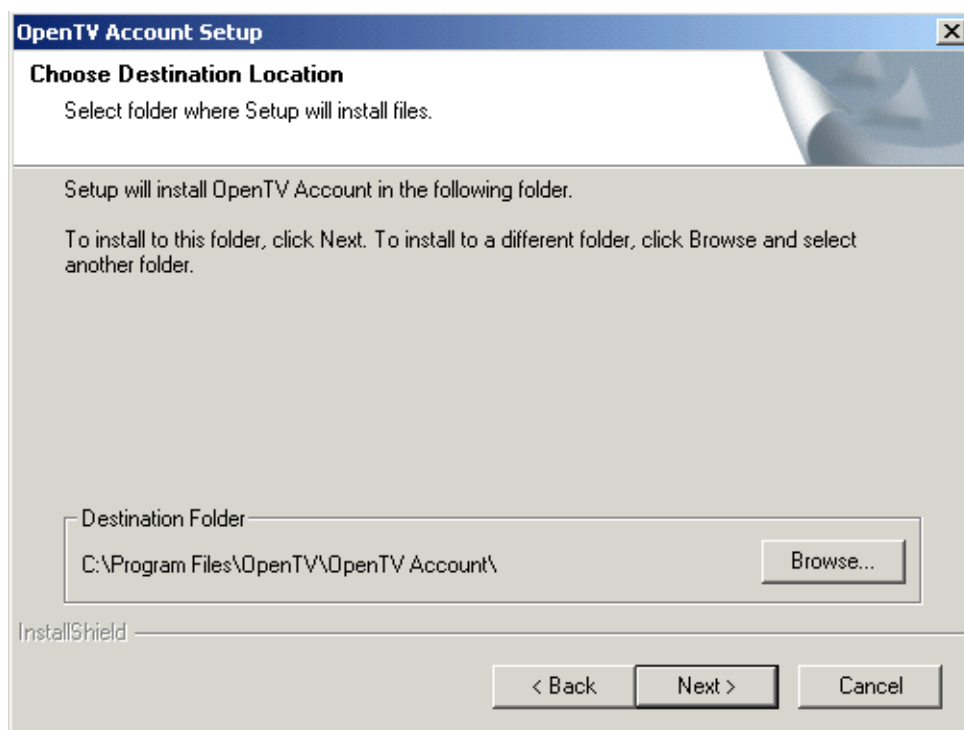
3. The next Account Setup screen requires your name, company name, and OpenTV Account serial number. The serial number is located on the CD case in which the OpenTV Account CD was shipped.



The screenshot shows the 'OpenTV Account Setup' window with the 'Customer Information' tab selected. The window has a blue title bar and a grey background. The text 'Please enter your information.' is displayed. Below it, a larger text block says 'Please enter your name, the name of the company for which you work and the product serial number.' There are three text input fields: 'User Name:', 'Company Name:', and 'Serial Number:'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'InstallShield' logo is visible in the bottom left corner.

**FIGURE 2-5:**  
*OpenTV Account Setup:*  
*Customer Information*

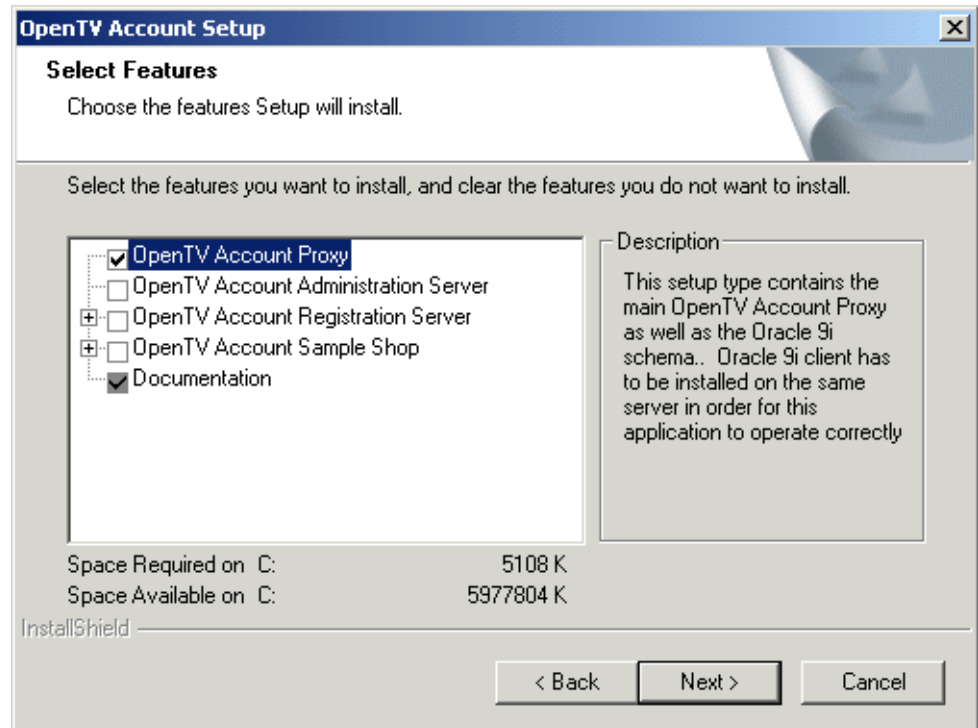
4. The following screen asks you to choose an installation location.



The screenshot shows the 'OpenTV Account Setup' window with the 'Choose Destination Location' tab selected. The window has a blue title bar and a grey background. The text 'Select folder where Setup will install files.' is displayed. Below it, a larger text block says 'Setup will install OpenTV Account in the following folder. To install to this folder, click Next. To install to a different folder, click Browse and select another folder.' There is a text input field labeled 'Destination Folder' containing the path 'C:\Program Files\OpenTV\OpenTV Account\'. To the right of the input field is a 'Browse...' button. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'InstallShield' logo is visible in the bottom left corner.

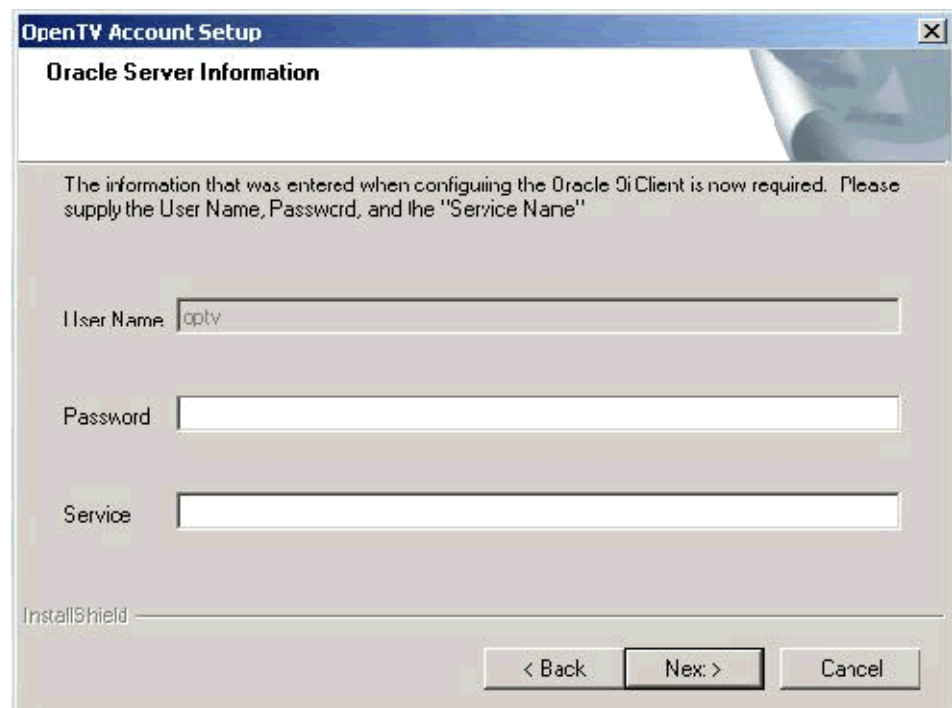
**FIGURE 2-6:**  
*OpenTV Account Setup:*  
*Destination Folder*

- Next, choose the components for your installation. Select the OpenTV Account Proxy and clear all other choices. Click **Next**.



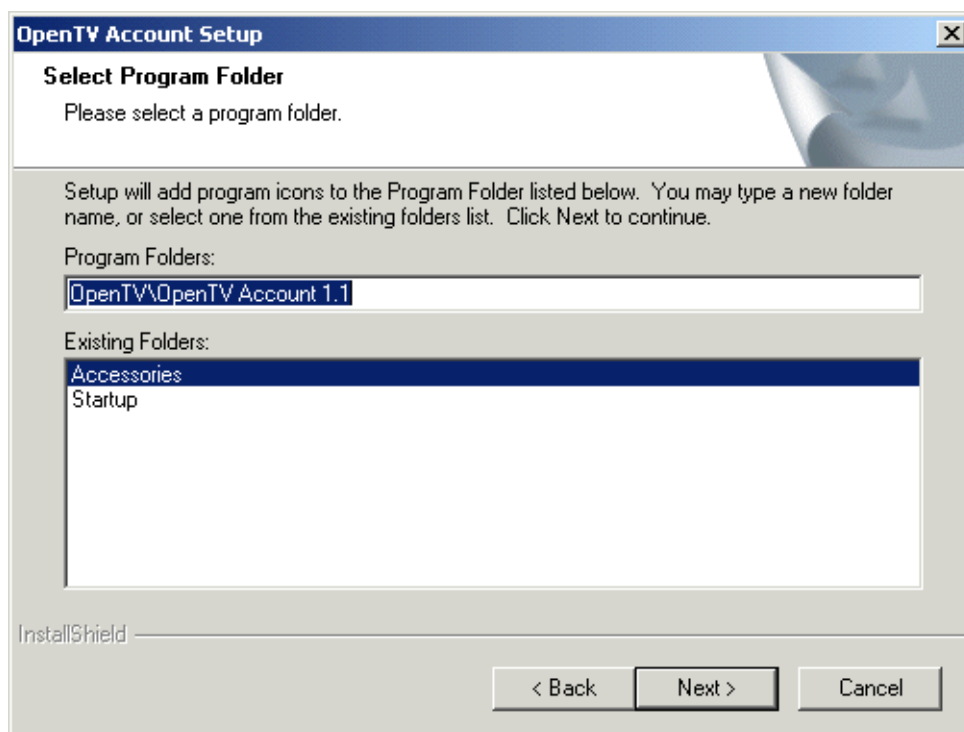
**FIGURE 2-7:**  
*OpenTV Account Setup: Select Features*

- You are required to enter the information you used to set up your Oracle database. The Password and Service information must be entered exactly as it appears in Oracle. The User Name by default is `optv` and may not be changed. Type the required information and click **Next**.



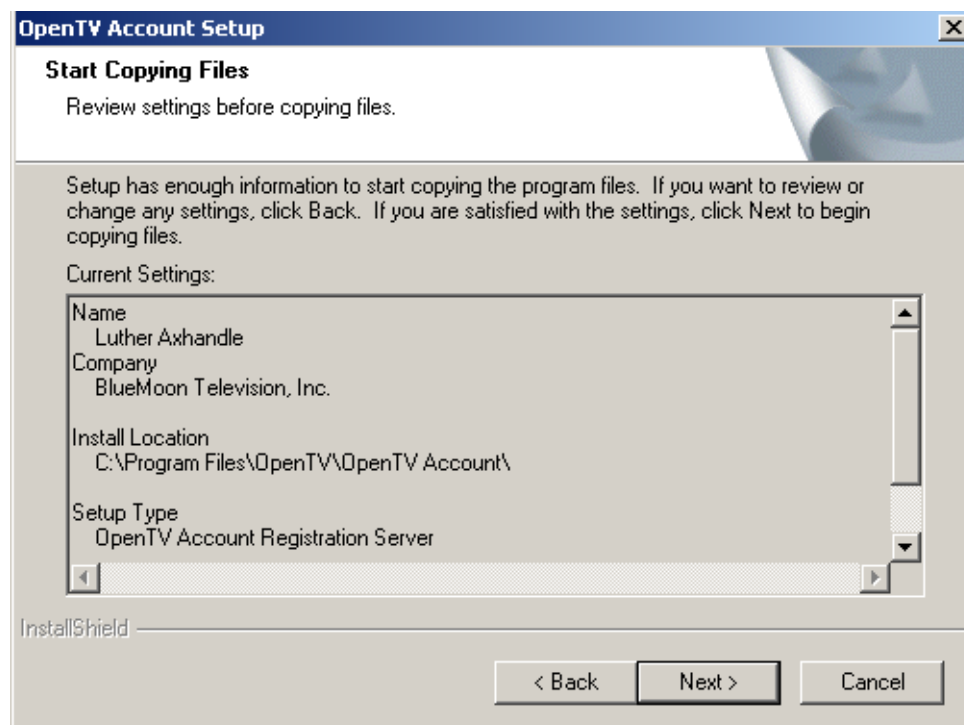
**FIGURE 2-8:**  
*OpenTV Account Setup: Oracle Server Information*

7. The following Account Setup screen allows you to select the location for installed program icons. The default directory is C:\OpenTV\OpenTV Account 1.1. Click **Next**.



**FIGURE 2-9:**  
*OpenTV Account Setup: Select  
Program Folder*

8. Carefully review the summary of installation information in the following screen. If changes are required, click **Back** and correct the necessary information. Click **Next** to continue.

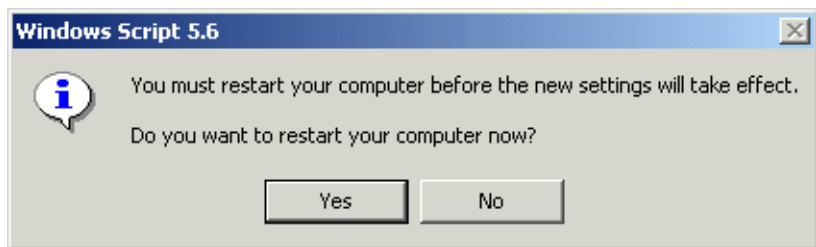


**FIGURE 2-10:**  
*OpenTV Account Setup: Start  
Copying Files*

9. The InstallShield displays a series of screens charting installation progress. During this process, several dialogs ask you to confirm installation of various components required for OpenTV Account Proxy.

The first dialog asks you to install Windows Script 5.6; click **Yes**. An End-User License Agreement is displayed. Please review the agreement and click **Yes** to continue the installation. Another dialog confirms the installation of Windows Script 5.6; click **OK**.

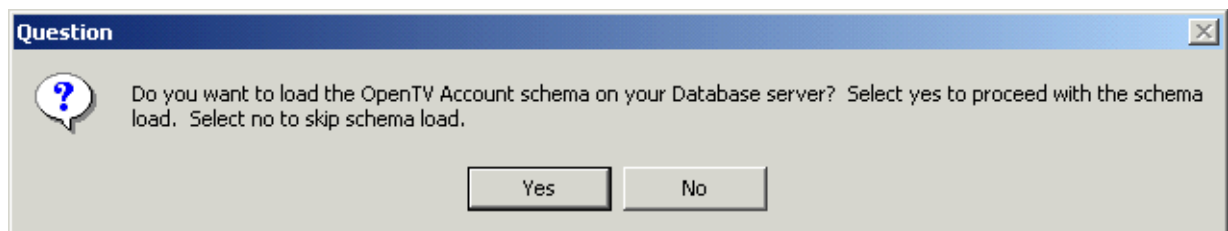
You may get a dialog asking if you want to restart your computer. Do not restart your computer at this time. If this dialog displays, click **No** to continue installation of OpenTV AccountProxy.



**FIGURE 2-11:**

*Do not restart your computer after Windows Script 5.6 installation*

10. After Windows Script 5.6 is installed, a series of messages display informing you of other component installations and configurations. These messages are followed by a dialog that asks you to install the OpenTV Account database schema, as shown below.

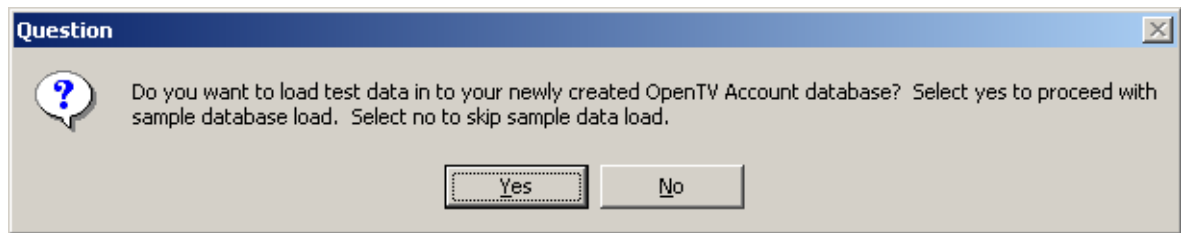


**FIGURE 2-12:**

*OpenTV Account Setup: OpenTV Account schema*

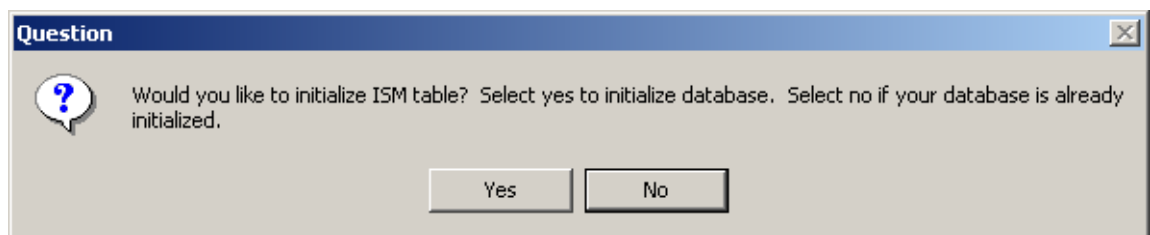
Click **Yes**; a confirmation dialog asks you to confirm the OpenTV schema installation. Click **OK**. During schema installation, a DOS window opens; do not attempt to close this window. When the OpenTV schema is fully installed, the window will close.

11. The following screen asks you to install the test data. Select **Yes**. During test data installation, a DOS window opens; do not attempt to close this window. When the test data is fully installed, the window will close.



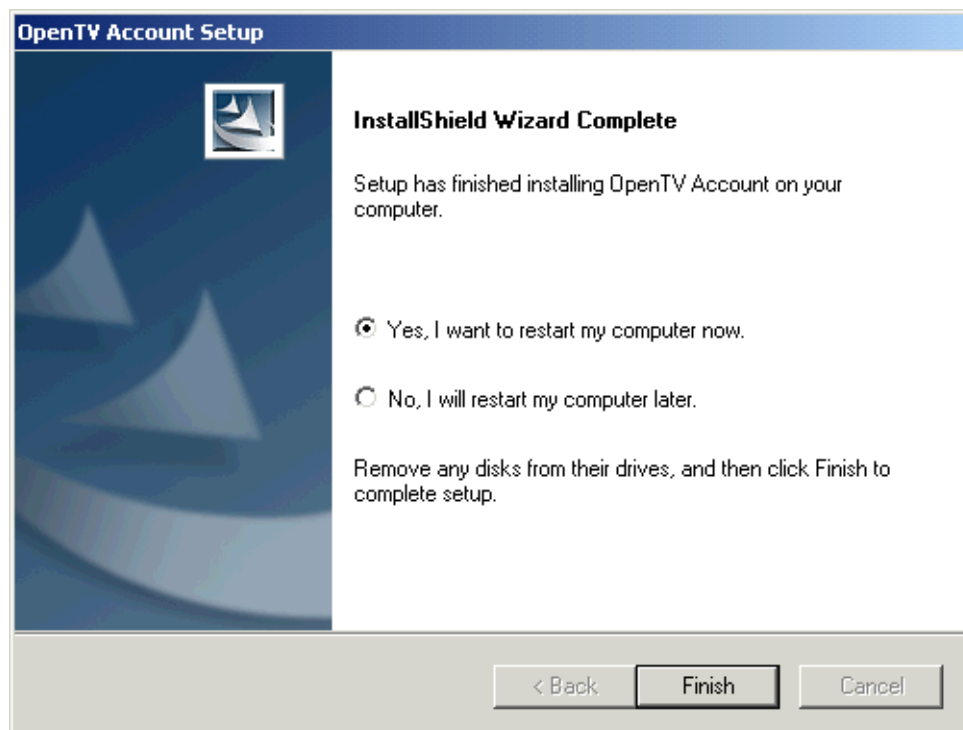
**FIGURE 2-13:**  
*Installing the test data*

12. After the test data is installed, another screens prompts you to initialize the ISM table. Click **Yes**.



**FIGURE 2-14:**  
*OpenTV Account Setup:  
Initializing the ISM table*

13. Click **Finish** to restart the computer and complete the installation of OpenTV Account Proxy.



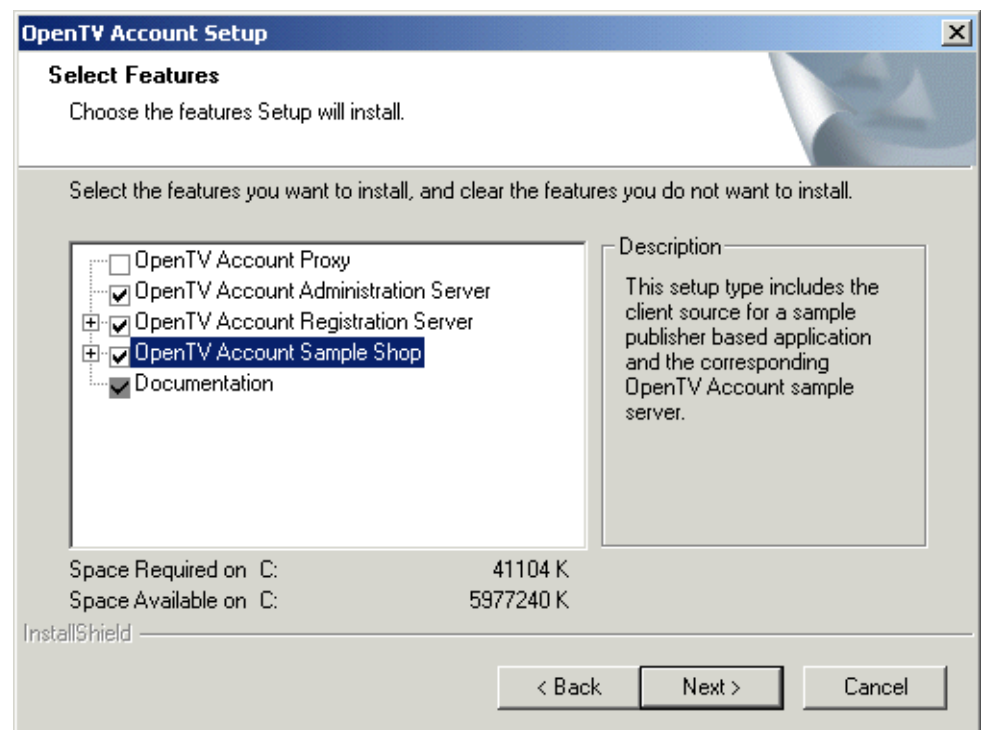
**FIGURE 2-15:**  
*OpenTV Account Setup: Click  
Finish to restart the computer*

## Installing remaining components

Once the OpenTV Account Proxy is installed, you must install the remaining components. The remaining components may not be installed on the same machine as the OpenTV Account Proxy.

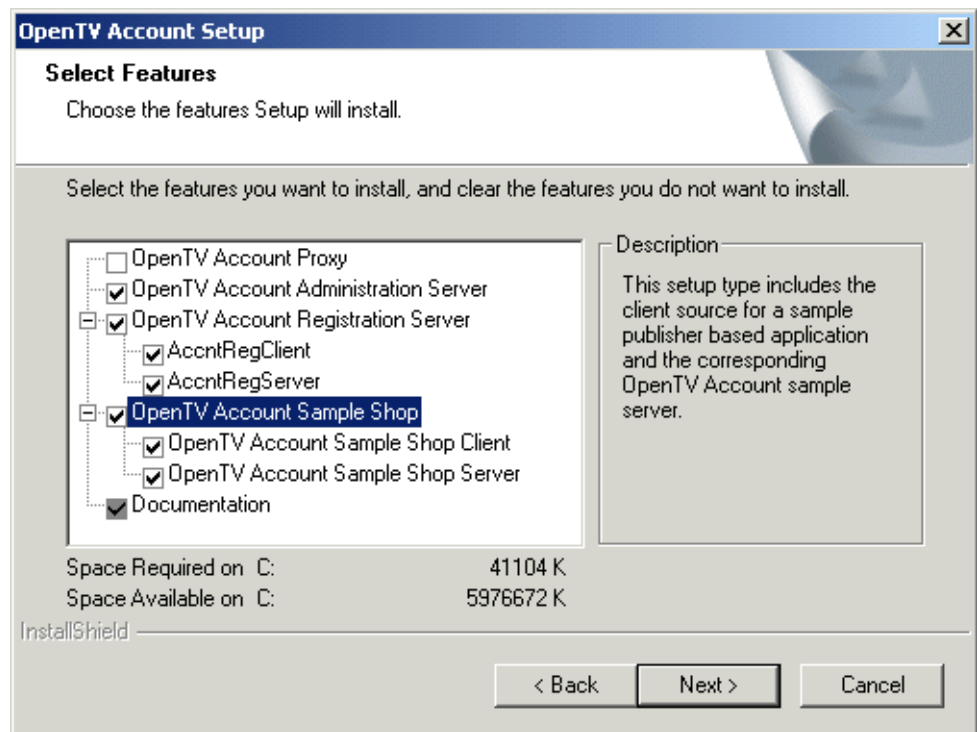
To install the remaining OpenTV Account components:

1. Repeat the process described above, until step #4.
2. When you reach step #4 of the installation, choose one or more of the remaining components for installation, depending upon your configuration needs. You may install all remaining components on the same machine by selecting them in the dialog, as shown below.



**FIGURE 2-16:**  
*OpenTV Account Setup:  
Installing remaining components  
on one machine*

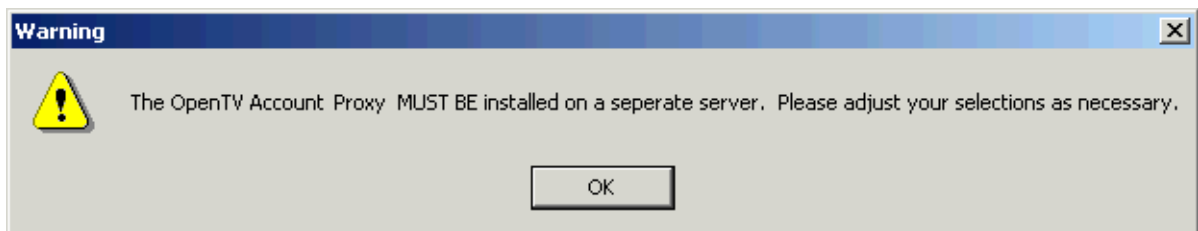
Two of the OpenTV Account components, the Registration Server and the Sample Shop, consist of subcomponents, as shown in the following figure. These subcomponents may be installed on the same PC or different PCs, depending upon your configuration needs.



**FIGURE 2-17:**  
*OpenTV Account Setup:  
Subcomponents of the  
Registration Server and Sample  
Shop*

3. When the desired components are selected, click **Next**.

- **CAUTION:** Attempting to install other OpenTV Account components on the same PC as the OpenTV Account Proxy will result in an error. The error message below displays; click **OK** and de-select OpenTV Account Proxy in the Select Features screen.

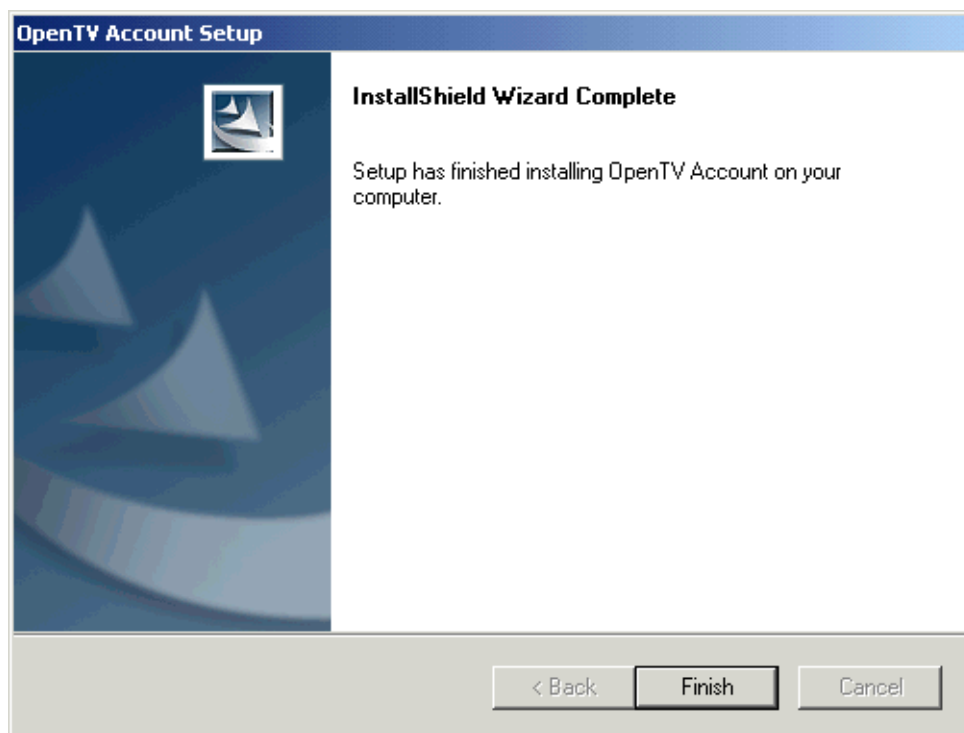


**FIGURE 2-18:**  
*Installation warning*

4. As with the OpenTV Account Proxy installation, a series of screens prompt you for Oracle information, program folder location, and a confirmation of installation information. Follow the instructions given for the OpenTV Account Proxy installation.



5. For each installation, you may see messages or DOS screens as various elements of the application are installed and configured. When the installation is complete, the following screen displays. Click **Finish**.



**FIGURE 2-19:**  
*Completing the installation*

If you are installing components on separate machines, repeat this installation sequence for each remaining OpenTV Account component.

## Completing the installation

### Registering OpenTV Account

After OpenTV Account Proxy is installed and before running the application, you must register the product through the Configuration Manager.

The Configuration Manager unlocks the OpenTV Account software using a registration number obtained by contacting your OpenTV support representative. Contact OpenTV support via email at [support@opentv.com](mailto:support@opentv.com).



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**NOTE:** OpenTV Support Department hours are 8:00 a.m. to 5:00 p.m., local time.

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You must provide the following information to OpenTV support to receive your registration number for OpenTV Account:

- ◆ The Unique Hardware Identifier for each machine on which you are installing OpenTV Account Proxy; the hardware identifier is found on the OpenTV Account License tab in the Configuration Manager.
- ◆ The version of OpenTV Account that you are installing; the version number is found on the Generic License tab of the Configuration Manager.
- ◆ The expiration date (if any) of the software version you are installing; the expiration date is found on your copy of the OpenTV license agreement.

OpenTV will provide you with a registration number for each PC on which you are installing OpenTV Account Proxy. The registration number must be entered in the Configuration Manager on each PC to unlock and license OpenTV Account on that machine.



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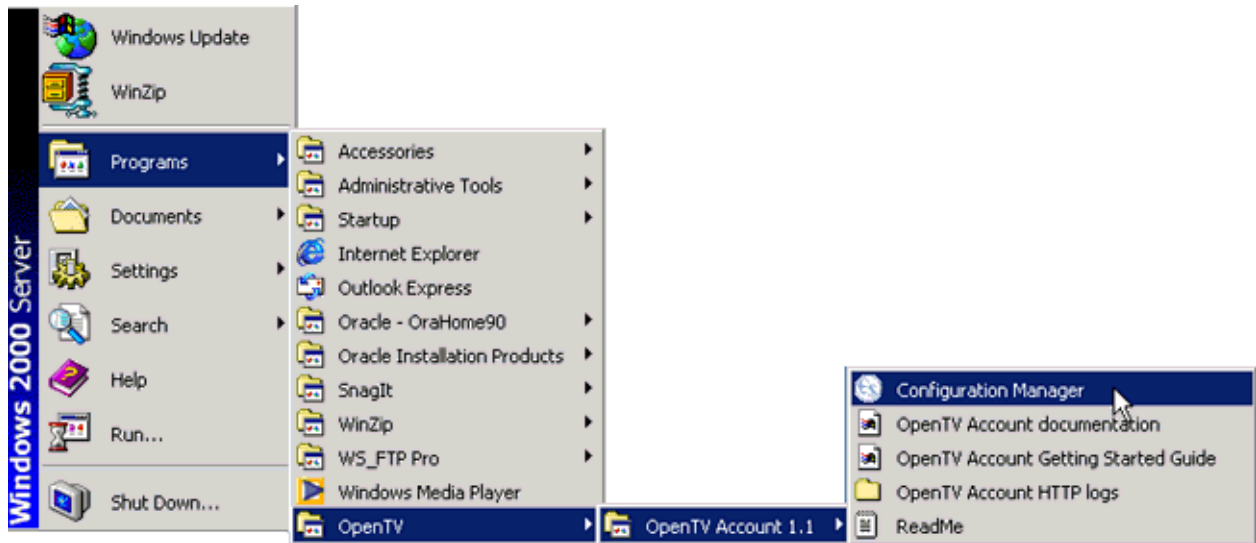
**CAUTION:** The hardware identifier is obtained from the network card. If you change network cards, the registration number obtained from OpenTV no longer works. You must re-register with OpenTV using the new hardware identifier.

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### Running the Configuration Manager

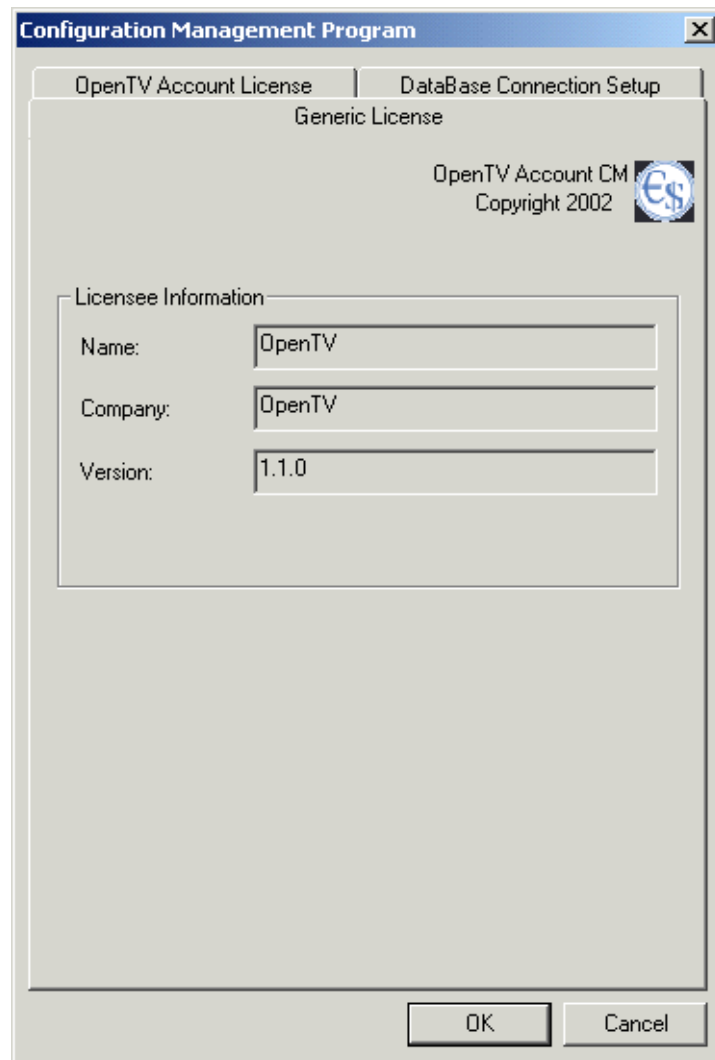
After you receive the registration number from OpenTV support, register your copy of OpenTV Account in the Configuration Manager. This must be done on each machine on which you have installed OpenTV Account Proxy.

1. Start the Configuration Manager by selecting it from the Start > Programs > OpenTV > OpenTV Account 1.1 > Configuration Manager menu as shown below.



**FIGURE 2-20:**  
*Starting the Configuration  
Manager*

2. The Generic License tab shows the Name and Company to which OpenTV Account is registered, as well as the product version number.



**FIGURE 2-21:**  
*Configuration Manager: Generic  
License tab*

3. Select the OpenTV Account License tab. This tab includes the Unique Hardware Identifier obtained from the computer's network card. This number is required for obtaining your registration number from OpenTV support.

The screenshot shows the 'Configuration Management Program' dialog box with the 'OpenTV Account License' tab selected. The dialog is divided into several sections:

- Generic License**: Contains 'OpenTV Account License' and 'DataBase Connection Setup' tabs. The 'OpenTV Account CM' logo and 'Copyright 2002' are visible.
- Hardware and Software Information**: Contains two text boxes: 'Unique Hardware Identifier' with the value '005004D02AB8' and 'Installed Version Number' with the value '1.1.0'.
- Installation Information**: Contains a checkbox 'This License Expires:' which is checked, an 'Expiration Date' dropdown menu showing '20- October -2002', and a 'CD Serial Number' text box with the value 'ZA334-VMBGH-2DE4FJK'. Below these are 'Copy', 'Revert', and 'Save' buttons.
- Registration Information**: Contains a 'Registration Number' text box and 'Check', 'Revert', and 'Save' buttons below it.

At the bottom of the dialog are 'OK' and 'Cancel' buttons.

**FIGURE 2-22:**  
*Configuration Manager: OpenTV  
Account License tab*

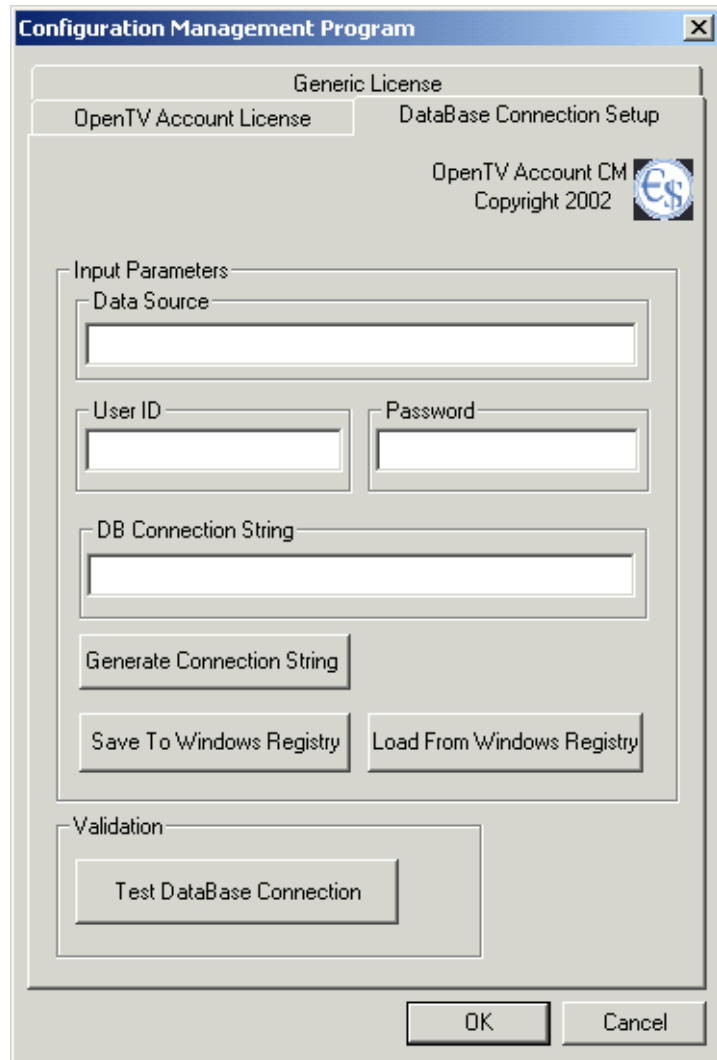
In the Installation Information section, enter the Expiration Date as provided by your OpenTV Account license. Check the CD Serial Number against the one found on the case in which OpenTV Account was shipped to verify its accuracy. Click Save.

In the Registration Number section, enter the registration number provided by your OpenTV support representative. Click Save, then click Check to insure the registration number is legal for the installation information provided.

A "Good Key Value" message should be displayed if you have entered all information correctly. A "Bad Key Value" message is displayed if you have entered the registration number incorrectly, or entered information different than that you provided to OpenTV.

If you receive a Bad Key Value message, verify the accuracy of all information. Correct and save the information, then recheck the registration number. If you still are unable to register OpenTV Account, contact OpenTV support for assistance.

4. Click the DataBase Connection Setup tab. This tab checks the database connection used by the OpenTV Account Proxy.



**FIGURE 2-23:**

*Configuration Manager: DataBase Connection Setup tab*

Click Load From Windows Registry. The Configuration Manager completes the information in the Data Source, User ID, and Password fields using information you entered during installation. Click Generate Connection String, then click Test DataBase Connection to verify your database connection.

## Adding .NET privileges

Before using the OpenTV Account Administration Server, you must complete the installation process by adding a user and appropriate privileges to a .NET directory.

The following procedure completes the installation of the Administration Server:

1. In Windows Explorer, navigate to C:\Program Files\Microsoft Visual Studio .NET\Crystal Reports.
2. Right click on the Viewers directory and select Properties in the pop-up dialog.
3. In the Viewers Properties dialog, click on the Security tab; click Add.
4. In the Look In pull-down menu of the Select Users or Groups dialog, select the local computer name.
5. In the Name select box, select ASPNET; click Add, then click OK.
6. In the Viewers Properties dialog, select the Write permission check box in the Allow Permissions column; click OK.

## **Starting the COM+ objects**

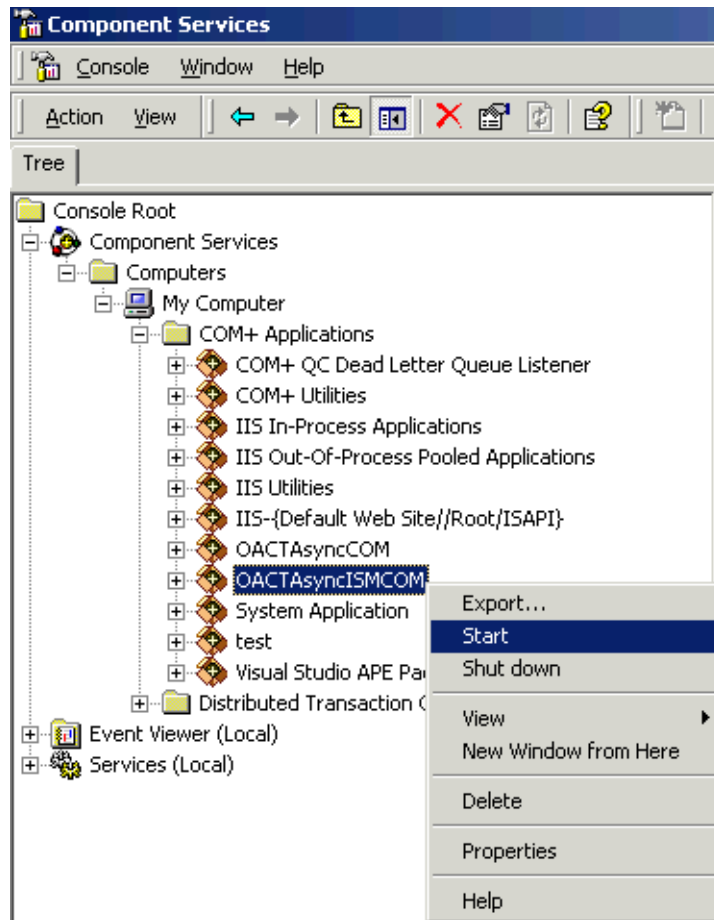
OpenTV Account installs the following COM+ objects:

- ◆ The OACTAsyncCOM object handles asynchronous message processing.
- ◆ The OACTAsyncISMCOM object handles message and keyword logging.

These COM+ objects must be started prior to running OpenTV Account. To start the objects:

1. Start the Component Service Manager.

2. Locate the COM+ objects in the Component Services manager directory tree. Select each object, then start the object by selecting Action > Start, or right click the object and select Start, as shown below.



**FIGURE 2-24:**  
*Starting the OpenTV Account  
COM+ objects*

3. Exit the Component Service Manager.



## Understanding the directory structure of installed components

### Proxy directory structure

When installed, the OpenTV Account Proxy directory structure is as appears below:

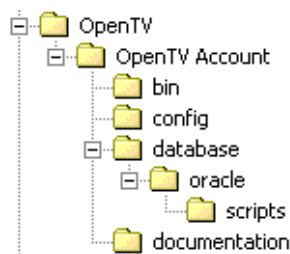
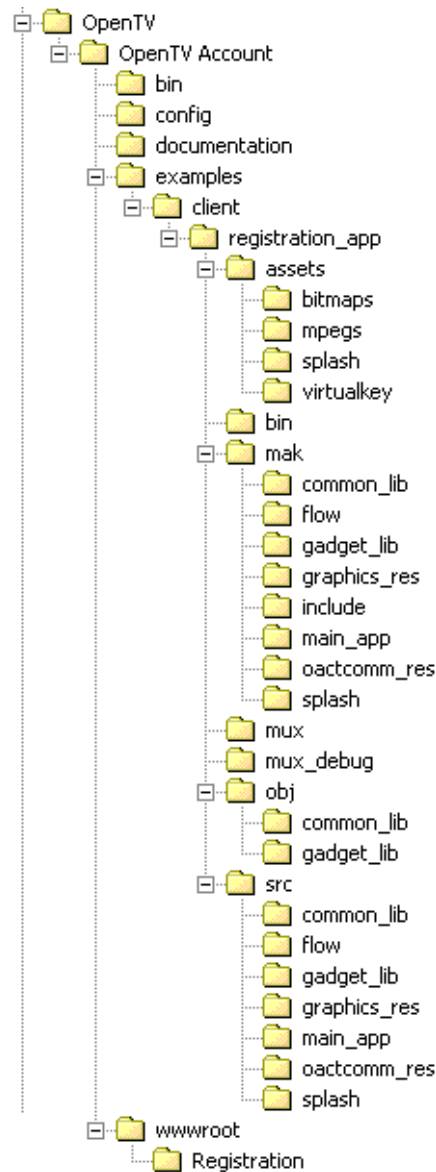


FIGURE 2-25:

*OpenTV Account Proxy directory structure*

## Registration Server directory structure

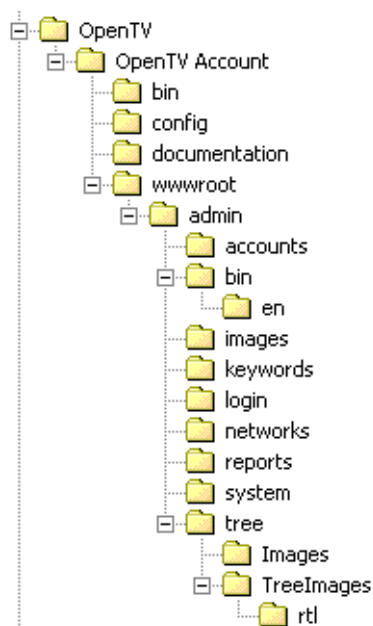
When installed on a single PC with no other OpenTV Account components, the OpenTV Account Registration Server directory structure is as appears below:



**FIGURE 2-26:**  
*OpenTV Account Registration  
Server directory structure*

## Administration Server directory structure

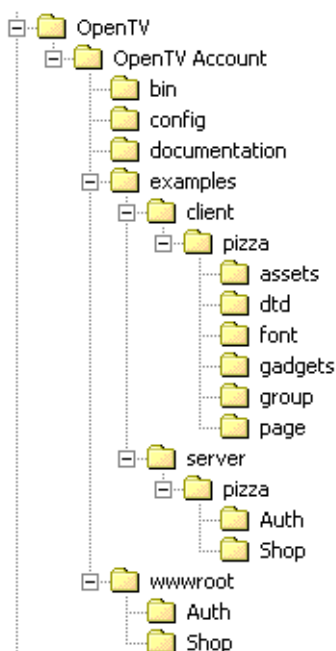
When installed on a single PC with no other OpenTV Account components, the OpenTV Account Administration Server directory structure is as appears below:



**FIGURE 2-27:**  
*OpenTV Account Administration  
Server directory structure*

## Sample Shop directory structure

When installed on a single PC with no other OpenTV Account components, the OpenTV Account Sample Shop directory structure is as appears below:

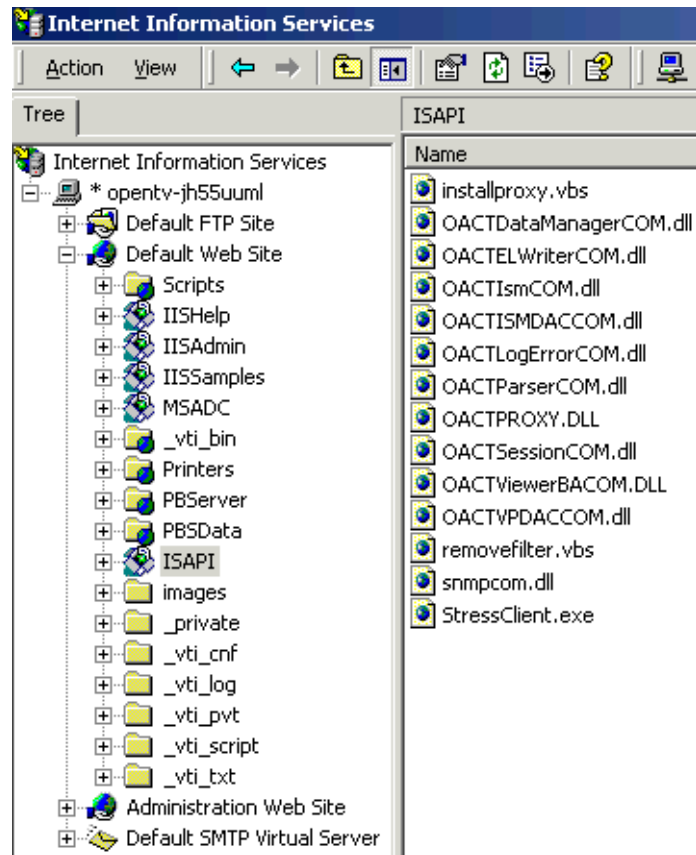


**FIGURE 2-28:**  
*OpenTV Account Sample Shop  
directory structure*

## The isapi directory structure

When installed, the OpenTV Account Proxy includes a directory named `isapi`; this directory points to the location of the COM objects.

The virtual directory structure is installed in the Default Web Site directory. After all server components have been installed, directory structure is as appears below.



**FIGURE 2-29:**  
*OpenTV Account Default Web Site  
directory structure*

If you have previously deleted the Microsoft Default Web Site, you must manually create these virtual directories and applications.

# A Configuring for OpenTV Account

*This appendix gives details on configuring required components for OpenTV Account.*

OpenTV Account can be configured to run in various broadcast and development environments. This appendix contains the following sections:

- ◆ *Configuring the Oracle client*
- ◆ *Configuring the COM objects*

## Configuring OpenTV Account and other required components

### Configuring the Oracle client

Using the Oracle Net Configuration Assistant, set the net service configuration as follows:

1. Select "Local Net Service Name configuration" and click **Next**.
2. Select "Add"; click **Next**.
3. Select "Oracle 8i or later database or service"; click **Next**.
4. In the "Service Name" text box, type the name of the database; click **Next**.
5. In the select box, choose the type of protocol used to connect to the database; consult your network or database administrator for this information. Click **Next**.
6. In the "Host Name" text box, type the name of the database server. Set the TCP/IP port number by:
  - ◆ selecting "Use another port number" and entering the appropriate port number, or
  - ◆ selecting the default "Use standard port number of 1521"

Consult your network or database administrator for the port number used. Click **Next**.

7. Verify the database connection by choosing "Yes, perform a test" and clicking **Next**.

### Configuring the COM objects

The OpenTV Account VP and ISM DAC COM objects must be available through the registry.

From the Active Server Page, the call to `CreateObject` must match the registered COM object (DLL). This should be verified in a COM object viewer, such as Microsoft Visual Studio.