



# eControl 3.5

## for Active Directory & Exchange Installation & Update Guide

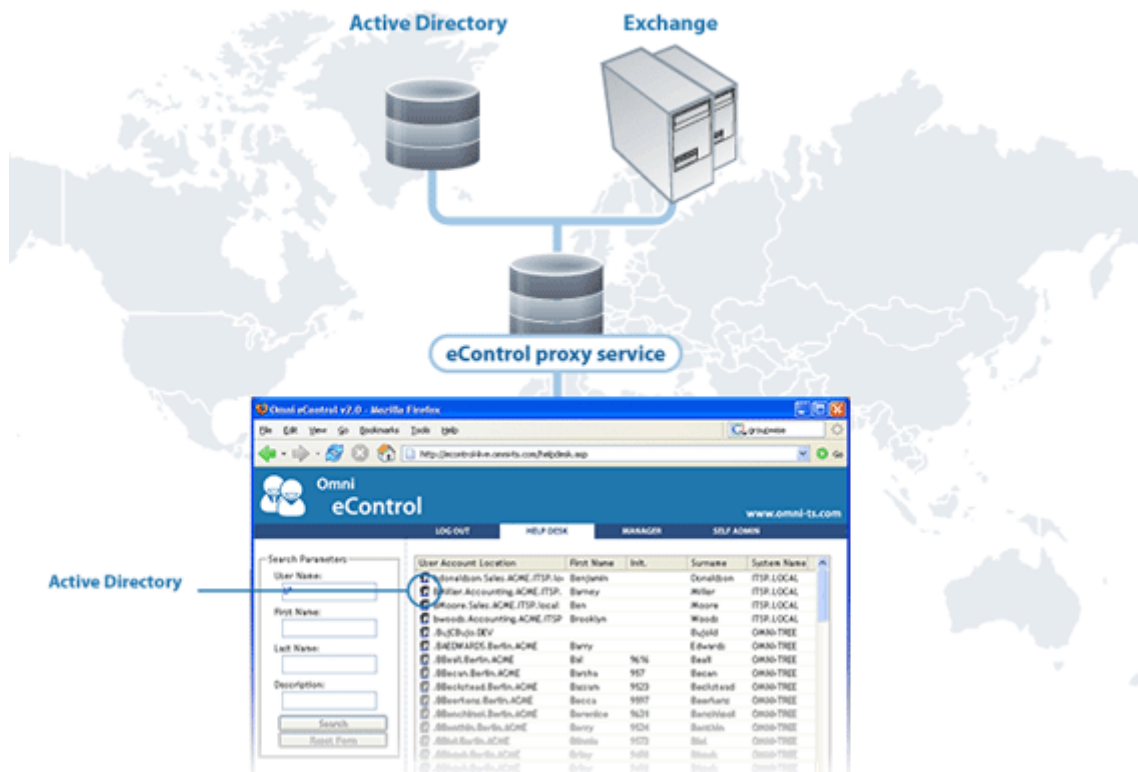
### This Guide

Welcome to the “**eControl 3.5 for Active Directory Installation and Update Guide**” for Microsoft Active Directory and Exchange management. This guide covers eControl 3 system requirements, installation, initial sign-on, and upgrading or updating the eControl system.

Other guides in this series includes:

- “**eControl 3.5 Requirements Checklist for Active Directory and Exchange**”
- “**eControl 3.5 for Active Directory and Exchange Administrator Guide**”
- “**eControl 3.5 for Active Directory and Exchange Operator Guide**”
- “**eControl 3.5 for Active Directory and Exchange Self-Service Guide**”

**eControl 3.5 for Active Directory and Exchange** delivers a simplified, web-based management, provisioning, self-service and audit application designed for non-technical users. eControl empowers junior administrators, help desk operators, HR staff, department managers, support staff and even end-users to perform common user account management tasks in Active Directory and Exchange – from a web browser, with NO security permissions and NO access to Microsoft Management Console or Task Pads.



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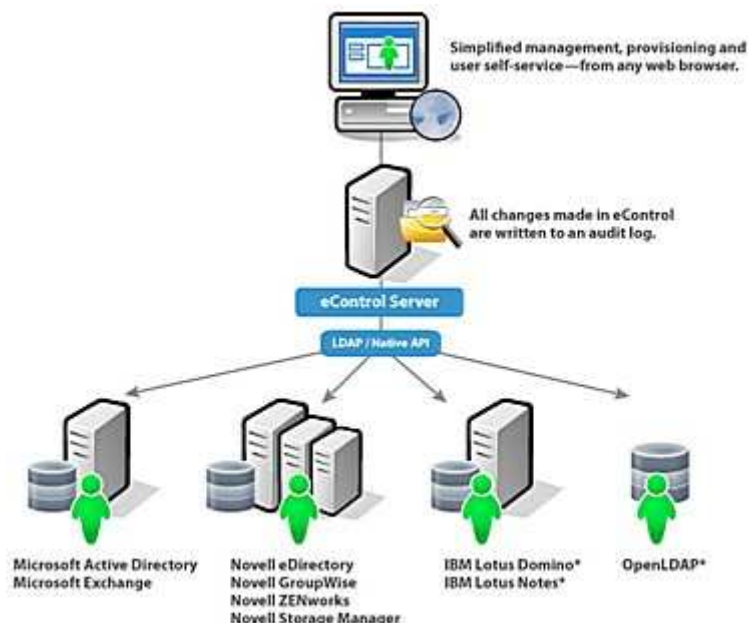
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## How eControl Works





eControl 3.5 provides a web-based directory and email service management system with special features designed to empower non-IT staff with the ability to manage users without requiring **SUPERVISOR or ADMINISTRATOR** rights! With eControl, concerns such as WAN bandwidth, distance, time-zones, training of IT staff, improving helpdesk effectiveness, costs, and security are overcome.



eControl installs as a Windows service that can connect directly to the configured mail and directory systems via **native API and/or LDAP calls**. This enables support staff to manage mixed and multiple Active Directory, Exchange, eDirectory and GroupWise systems from a single web interface.



eControl comprises four feature modules that are enabled through the licensing process and provisioned in the administration panel:

	<p>Provide simplified, role-based management of user accounts, email lists, groups, Terminal Services profiles and other directory objects to support staff. eControl Manage allows you to control users' search and task authority. NO special permissions required. NO access to Microsoft Management Console or Task Pads.</p>
	<p>Use eControl Create to empower HR and office staff to provision user accounts, email lists and groups based on pre-configured profiles. Simplify and standardise your provisioning processes and ensure compliance with naming standards and password requirements. Now with support for bulk creating users from a CSV file.</p>
	<p>Deliver user self-service functions for Active Directory, Exchange, eDirectory and GroupWise. These functions include password changes, "forgot-my-password" challenge phrases, subscriptions to distribution lists and the ability to update demographic information.</p>
	<p>All changes made in eControl are written to an audit log for administrator oversight. eControl Audit Viewer and Reporting enhances compliance and security audits.</p>

Provisioning eControl is performed by logging into the eControl portal using the eControl service account credentials and clicking the "Administration" option in the tool bar. This is the only account that can configure how eControl works and can provision management task collections, create profiles, self-service assignments, and audit file access to other users in the environment.



## Planning for eControl

### Planning the eControl Environment:

eControl integrates into a large number of systems using a wide variety of different programming interfaces (APIs) to communicate with each system. Windows is the required operating system for eControl because many of the APIs required to manage and provision user accounts in Novell-only, Microsoft-only and mixed and multiple GroupWise, eDirectory, Active Directory and Exchange environments are only available on the Windows platform.

### Typical eControl Scenarios

There are three typical eControl scenarios:

- **eControl managing Active Directory only:**
  - "Domain Controller" – one per domain must be configured to support SSL LDAP authentication to support creating and changing user account passwords.
  - "Active Directory Domain" – each domain that eControl will manage must be configured with an eControl master service account.
  - "eControl Host Server" - a Windows 2003 or 2008 server that will host the eControl website:
    - Windows server that meets system requirements
    - Installation of eControl
    - Configure Active Directory Connections
    - License the eControl installation
- **eControl managing Active Directory with Home Directories** - All requirements for "eControl managing Active Directory only" and add:
  - "Home Directory Servers" - must be configured to support WMI so that user home directories can be created, managed and deleted.
  - "eControl Server" - IIS must be configured to support WMI connections to remote Home Directroy servers. Active Directory connections "WMI" settings must be configured.
- **eControl managing Active Directory with Exchange** - All requirements for "eControl managing Active Directory only" and add:
  - **"eControl Host Server"** - Exchange connections must be added/configured in Riva. Existing Active Directory connection "Remote Agent" settings must be configured.
  - **"eControl Remote Agent Server"** - eControl must be installed and then properly configured on Windows server that will host the "Omni eControl Connection Agent" windows service that the eControl host server will use to connect to the Exchange server. This server must also have the applicable Exchange Management Tools installed.

## Preparing for eControl 3

### Certified Microsoft Systems

eControl 3 can connect to:

- **Certified Directory:** any 2000, 2003 or 2008 Active Directory system
- **Certified Email System:** any Exchange 2003, 2007, or 2010 system

### eControl Service Accounts

eControl service accounts will need to be created. Pay close attention to this requirement throughout the system requirements below. It is highly recommended that the same common name (SAM account logon name) and password be used for all eControl service accounts created. Ensure that the service account name is not the same as the computer name of the Windows system hosting eControl, e.g. if the eControl host server is named **econtrol** then use a different name for the eControl service account like **ecadmin**.

All assignments in eControl are made to group objects that exist in the target Directory(s). A best practise for "eControl objects" in the target Directory(s) is to:

- Create an "eControl" container at the top of the Directory that will not be in the same path as other user objects that will be managed by eControl operators. This will ensure that the eControl objects cannot be inadvertently modified by eControl.
- Create an "econtrol-admins" universal group object and make the "eControl" service account a member of that group.

### eControl Host Server - System Requirements

eControl must be installed and connections must be configured and licensed on a eControl host server that meets the following requirements:

- Windows Server 2003 or 2008
  - Standard or Enterprise server and R2 supported (2008 R2 preferred)
    - AD Domain 2008 – home folders hosted on Windows 2008 servers, install eControl on Windows 2008 server.
    - AD Domain 2003 – home folders hosted on Windows 2003 servers, install eControl on Windows 2003 server.
  - x86 and x64 server platforms are both supported
  - 500 MB available disk space (in addition to server requirements)
  - 256 MB RAM (in addition to server requirements)
  - Full support for VMware, Microsoft Virtual Server, Xen, and other virtualization technologies
  - Can be stand alone or member server

*eControl 3.x cannot be installed on Windows 2000.*
- Apply the latest Service Packs and applicable Microsoft Updates.
- Install Microsoft .NET 3.5 SP1

- **Webserver on Windows 2003:** IIS 6 is installed. Ensure that ASP .NET v2.0.50727 web service extension is enabled in IIS Manager.
- **Webserver on Windows 2008:** IIS 7 is installed. Ensure that the following 'Role Services' are installed (in addition to the standard IIS roles):
  - Under 'Application Development' – 'ASP .NET' is installed.
  - Under 'Security' – the applicable 'Authentication' role for your environment is installed.
  - Under 'Management Tools' – 'IIS 6 Management Compatibility' and all child roles are installed.
- Install Windows Powershell 1.0 - available through Microsoft Update as an optional update or from:  
<http://www.microsoft.com/windowsserver2003/technologies/management/powershell/download.msp>
- Install Windows Silverlight (optional to support the Dashboard) download from:  
<http://www.microsoft.com/getsilverlight/Get-Started/Install/Default.aspx>
- Disable IE Enhanced Security (recommended)
  - for Windows Server 2003:
    1. Open "Control Panel" > "Add or Remove Programs".
    2. Select "Add/Remove Windows Components".
    3. In the "Windows Components Wizard" window uncheck the "Internet Explorer Enhanced Security Configuration" option and click "Next" and "Finish".
  - for Windows Server 2008:
    1. Open "Server Manager".
    2. Under the "security information section, click on the Configure IE ESC" link.
    3. Change the Administrators setting to "Off".
    4. Click "OK".

### Active Directory - System Requirements

- All versions of Active Directory in Mixed or Native mode supported.
- eControl 3.x Server can be installed on a dedicated stand-alone or member Windows server:
  - If eControl will manage multiple Active Directory domains in the same Forest, install the eControl server on a member server a top-level domain that will be least impacted by Domain GPOs (best practise).
  - If eControl will manage a single Active Directory domain, install the eControl server on a member server in that domain.
  - It is not recommended to install eControl server on a Domain Controller, or SharePoint server or other dedicated application server utilizing IIS.
- Create an "eControl" service account in AD and make it a member of the "Domain Admins" and "Domain Users" groups. The Domain User group should be the primary group. Set the password to not expire.

## Requirements for SSL Certificates for Active Directory Connections

eControl must establish a SSL secured LDAP connection between the eControl host server and the Domain Controller(s). This is a Microsoft security requirement that enables Active Directory password management (password changes) to be made in SSL encrypted mode. The recommended means to enable SSL support is ensure that an Enterprise Certificate Authority server is installed and functioning in each Active Directory Forest/Domain (as applicable):

- if the eControl Host Server is installed on a member server in the same Active Directory domain as the Domain Controller server being connected to, SSL certificates will be automatically configured and no additional setup is required:
  - The Enterprise CA will automatically issue a server certificate to the domain controller server, and
  - the member server that is hosting the eControl Host Server will automatically trust that Enterprise CA.
- if the eControl Host Server is installed on a stand-alone server, export a trusted root certificate from each Enterprise CA and import it as a trusted root certificate on the stand-alone server hosting the eControl Host Server.

Refer to the following documents for additional information:

- "Enterprise Certificate Authority" - Do not install the Enterprise Certificate Authority on the eControl server.  
<http://technet.microsoft.com/en-ca/library/cc700804.aspx>
- "How to enable LDAP over SSL with a third-party certification authority"  
<http://support.microsoft.com/kb/321051>

## Home Folder Support Requirements for the eControl Host Server

WMI is used to manage home folders and network shares. User home folder support requires additional configuration of the eControl host server which is normally completed as part of the initial eControl host server installation and configuration. Create a local user account that uses the same name and password as the Active Directory eControl Service Account (this will be the local eControl service account). Set the password to never expire and add this account to the local "Administrators" group.

## eControl Requirements for Windows Servers Hosting Home Folders

The following additional configuration is required on Windows servers hosting user home directories:

- **Configure the eControl Service Account:**
  - if user home directories are hosted on Windows member server, create a local user account that uses the same name and password as the Active Directory eControl Service Account (this will be the local eControl service account). Set the password to never expire and add this account to the local "Administrators" group.
  - if user home directories are hosted on Domain Controller servers, add the Active Directory "eControl" service account to the built-in "Administrators" group.

- **Configure File System Permissions:** Administrators can use any share/security permissions plan that meets corporate security policy. The eControl service account must be granted full control security permissions to the parent "Home" folder. As an example, the following permissions are based on SBS 2003 deployment:
  - Share the Home folder off and modify permissions as follows:
    - Share Permissions:
      - Domain Admins group - assign full control
      - Domain Users group - assign full control
      - NETWORK SERVICE - assign full control
    - Security Permissions:
      - Domain Admins group - assign full control
      - Domain Users group - assign special permissions - that apply onto "This folder and files" (Ensure that "Apply these permissions to objects and/or containers within this container only" is checked):
        - Traverse Folder / Execute File - Allow
        - List Folder / Read Data - Allow
        - Read Attributes - Allow
        - Read Extended Attributes - Allow
        - Create Folders / Append Data - Allow
        - Read Permissions - Allow
      - eControl service account (applicable local or AD account) - assign full control
      - Network Service - assign full control
      - SYSTEM - assign full control

### Requirements for Microsoft Exchange Support

The eControl host server must connect to a supported Exchange system via an Omni Connection Agent service installed on a Windows 2003/2008 server. The Omni Connection Agent service can be installed on the eControl host server, an Exchange server, a domain controller or a server which meets the requirements:

- **Exchange 2003** - Minimum Exchange 2003 SP1+ is required. Corresponding Exchange Management Tools must be installed on the server hosting the Omni eControl Connection Agent service.
- **Exchange 2007** - Minimum Exchange 2007 SP1 with Rollup 1+ is required. Corresponding Exchange Management Tools (32 bit only) must be installed on the server hosting the Omni eControl Connection Agent service.
- **Exchange 2010** - Minimum Exchange 2010 with latest updates is required. Contact Omni Technical services to schedule their assistance to add support for Exchange 2010.

- **Common Requirements:**
  - Windows Powershell 1.0 (Exchange 2003 / 2007) or 2.0 (Exchange 2010)
  - Microsoft .NET 3.5 SP1
  - The AD "eControl" service account must be added to the group(s) necessary to create and manage Exchange mailboxes. Recommend logging onto this server as the "eControl" service account and manually create/manage an exchange mailbox.
  - TCP Port 7190 (configurable) in/out must be enabled on the server's Windows Firewall (if active) to ensure that the eControl host server can communicate with the Omni eControl Connection Agent service.

### Requirements for Multiple Exchange Version Systems

For those Exchange systems that host multiple versions of Exchange, e.g. Exchange 2003 and 2007 in the same system, the Omni eControl Connection Agent service must be installed:

- **Exchange 2003 / 2007** – Install Exchange Management Tools (32 bit) for both Exchange versions on the same server. This can be on the eControl Host Server or another Windows server. eControl will be installed and configured. The Omni eControl Connection Agent service will be installed.
- **Exchange 2007 / 2010** – Install Exchange Management Tools for Exchange 2007 (32 bit). This can be the the eControl Host Server or another Windows server. eControl will be installed and configured for Exchange 2007. The Omni eControl Connection Agent service will be installed. Contact Omni Technical services to schedule their assistance to add support for Exchange 2010.
- **Exchange 2003 / 2007 / 2010** - Install Exchange Management Tools (32 bit) for both Exchange versions on the same server. This can be the the eControl Host Server or another Windows server. eControl will be installed and configured. The Omni eControl Connection Agent service will be installed. Contact Omni Technical services to schedule their assistance to add support for Exchange 2010.

### Firewall Requirements for eControl in Active Directory and Exchange

Ensure that any firewalls between the eControl host server and the all Windows servers that the eControl host server will connect with are open for:

- TCP Port 636 In/Out to support SSL for password management with the Domain Controller.
- TCP Port 7190 In/Out to support connection between the eControl host server and the Exchange server where the eControl Remote management Agent is installed.
- TCP Port 135 In/Out to support WMI connections between the eControl host server and Windows servers hosting home directories.

## Install and Configure eControl

There are 6 steps to install and configure the eControl host server:

- Step 1 – Install eControl
- Step 2 – Configure the target Active Directory domain connection(s)
- Step 3 – Configure the target Exchange Mailbox server connection(s)
- Step 4 – Configure home folder support
- Step 5 – Install and configure the Omni eControl Connection Agent service
- Step 6 – Configure Remote Agent support
- Step 7 – Restart IIS

### Step 1 - Install eControl

#### Downloading eControl

Prior to installing the eControl host server, ensure that the server meets the system requirements. Download the **econtrol.setup-latest.zip** file from the download link provided by the eControl download email.

The recommended best practise is to create a **C:\Download-Omni\eControl** folder and extract the the **econtrol.setup-latest.zip** file to that folder. This should create a **C:\Download-Omni\Control\3.x.xx.xxxx** eControl setup folder that is specific to the release version contained in the **econtrol.setup-latest.zip** file.

**IMPORTANT NOTE:** Do not delete or remove the folder containing the eControl installation files. You can use those files to upgrade or uninstall eControl in the future.

#### Where to install eControl

Prior to installing eControl, ensure that each target server meets the system requirements. Run the eControl installation on the following host servers:

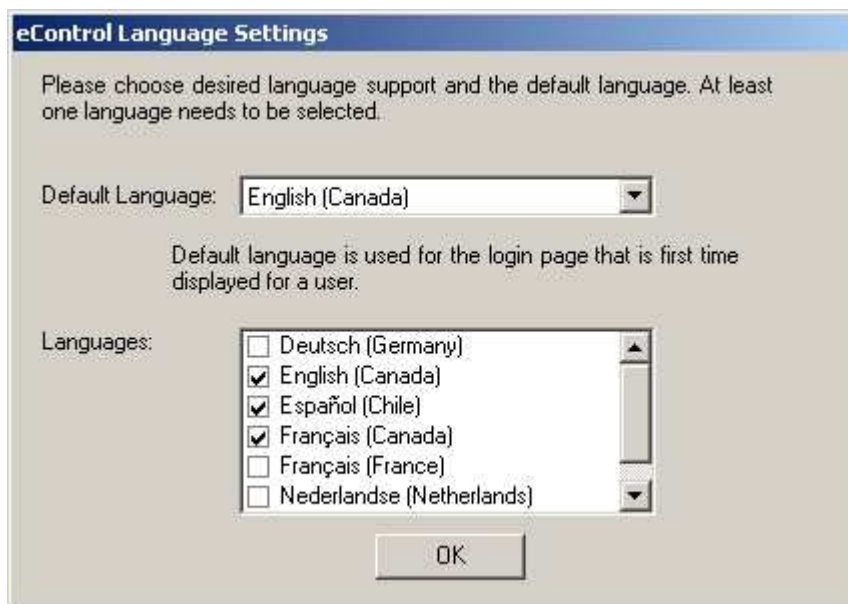
- On the Windows server that will host the eControl host server and website
- On each Windows server that will host the "Omni eControl Connection Agent" service

#### Run the eControl Installer

The eControl **setup.exe** file will ensure that Windows installation and .Net framework requirements are met, then install eControl and Riva on the host Windows system:

1. Execute the **setup.exe** file in the **C:\Download-Omni\Control\3.x.xx.xxxx** eControl setup folder.
2. If you see the EULA license agreement page for **Windows Installer 3.1** click **Accept**. This indicates that the Windows Installer 3.1 application is not installed and you agree to install it.

3. If you see the EULA license agreement page for **.NET Framework 3.5 SP1** click **Accept**. This indicates that the required .Net Framework components are not installed and you agree to install it. Clicking **Accept** will start the installing the installation of the Windows 3.1 installer software.
4. When you see a window indicating that **Setup must reboot before proceeding** click the **Yes** button to allow the host Windows system to reboot.
5. After the Windows system reboots, login and the installation of the .Net Framework 3.5 SP1 components will automatically continue. This may take some time so please be patient.
6. When you see a window indicating that **Setup must reboot before proceeding** click the **Yes** button the host Windows system reboot.
7. At the **Welcome to the Omni eControl Setup Wizard** window click **Next >**.
8. At the **License Agreement** window, ensure that **Agree** is selected and click **Next >**.
9. At the **Select Installation Folder** window you can make the necessary adjustments and click **Next >** to continue.
10. At the **Confirm Installation** window click **Next >**.
11. At the **eControl Language Settings** window, select the default language and remove the checks from the languages that you do not want installed.



eControl has been localized to support English, French, Spanish, German, Dutch, and Polish in the eControl web portal. Click **OK** to continue.

12. At the **eControl Web Component Configuration Window** window:



- Click **Yes** if installing on to the eControl Host Server and the eControl Portal will be the default web site.
  - Click **No** if this server hosts another website in the default website folders. You can always configure the eControl website manually in IIS manager. Contact Omni support for additional information.
  - Click **No** if installing on the server that will host the "Omni eControl Connection Agent" service.
13. At the **Installation Complete! eControl Web Server restart required** window, click **Yes** (this window will not appear if you selected **No** in the previous step)



14. At the **Installation Complete** window click **Close**.

## Step 2 - Configure the Target Active Directory Domain Connection(s)

The next step involves running a "Microsoft Active Directory" wizard to create an eControl connection to a target Active Directory (AD) domain. This procedure needs to be repeated for each target AD domain that will be managed using eControl. Connections need to be created for each instance where eControl has been installed in Step 1 (eControl Host Server and eControl Remote Agent Server).

Prior to running the Active Directory wizard, ensure that an eControl service account has been created in each target AD domain, that this account uses the same username, e.g. "econtrol" or "ecadmin", that each account uses the same password and that the password is set to never expire, and that each account has been added to the corresponding "Domain Admins" group for the corresponding AD domain.

To create an Active Directory connection:

1. From the windows desktop of the Windows system where eControl is installed click "Start" > "All Programs" > "Omni" > "eControl" > "Configure Connections". This will open the Riva Application.



2. Select "Setup" and click on the "Microsoft Active Directory" link in the "Connection Wizards" box. This will start the Active Directory Connection wizard.
3. At the "Welcome to Microsoft Active Directory Connection Wizard" windows click **Next >**.
4. At the "Target Information" window provide the IP address or DNS name of the Domain Controller and ensure that **Enable SSL** is checked (mandatory). Click **Next >**.



- At the "Enter the information to connect to Microsoft Active Directory" window, ensure that you specify the eControl service account AD logon credentials. *If the user specified is not a member of the "Domain Admins" group of the target AD domain, then management functions in eControl will encounter permission-based errors.*



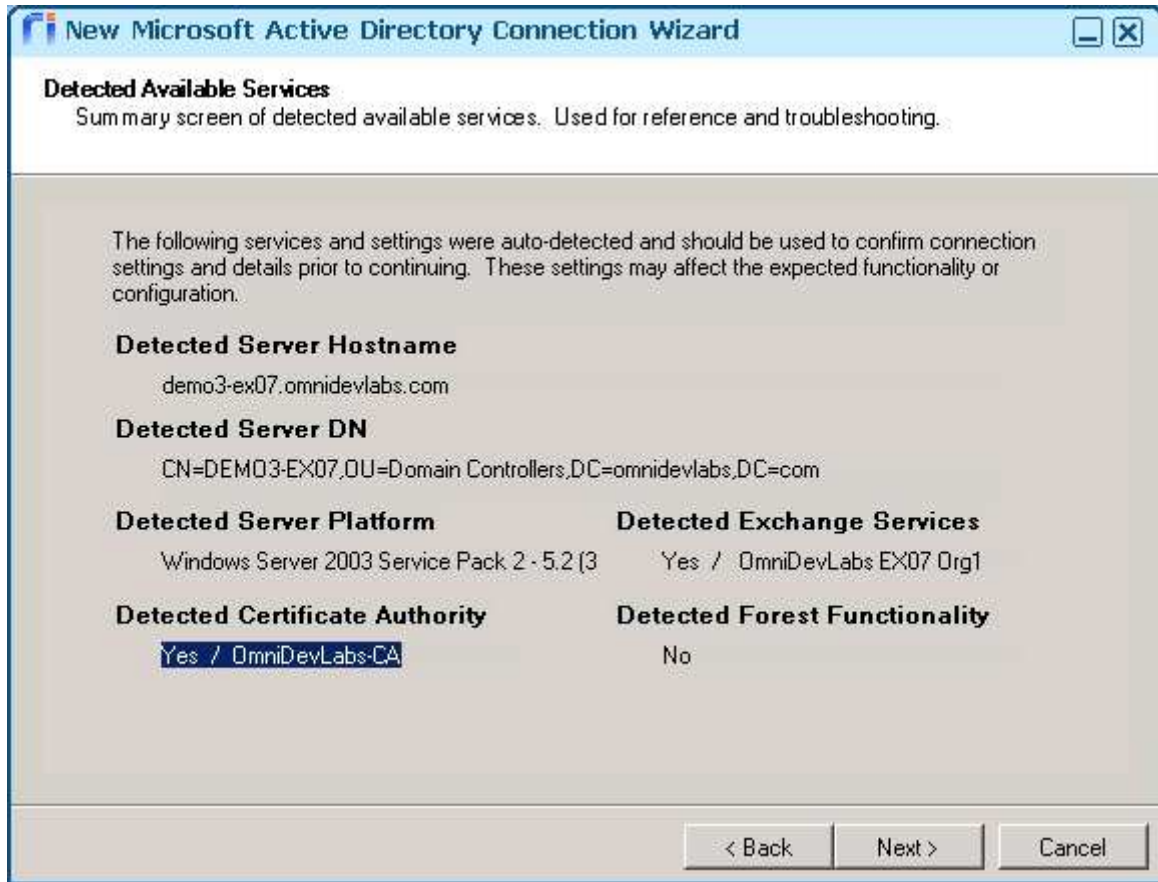
Click **Next >** to continue.

- If an IP address was specified for the Host in step 4, you may see a "Conflict Hostname Detected" window:

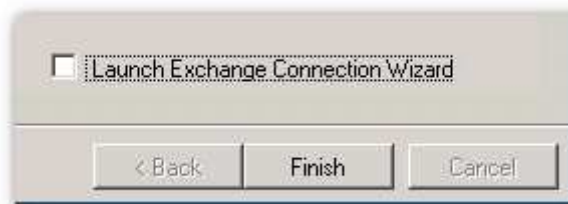


- If this server is a member server of the AD domain and is configured to use the DNS server for the AD domain, select **Yes**, otherwise
- Select **No** to use the IP address configured in step 4 above.

7. At the "Detected Available Services" window, click **Next >**.



8. At the "Microsoft Active Directory connection Wizard complete" window, uncheck **Launch Exchange Connection Wizard** option and click **Finish** to create the connection.



- This will add a Microsoft Connector in the Riva Connections panel under Setup.



- Double-click the Active Directory connection. Under the "General" tab, confirm that the correct LDAP distinguished name for the Domain Controller is displayed and that the Username shows the LDAP distinguished name for the eControl service account.



- You should test the connection to make sure that it is working. Double click the Active Directory connection. This will open a "Connection Edit" window.



Select the "Connection Targets" panel. Highlight the ldap connection and click the "**Test the connection target**" link. A "Connection Successful" window will open if the connection is working. Click **OK** to close the window and select **Save >>** to save the settings and close the "Connection Edit" window.

12. Repeat steps 1-11 above for each Active Directory domain that will be managed by eControl.

### Step 3 - Configure the Target Exchange Mailbox Server Connection(s)

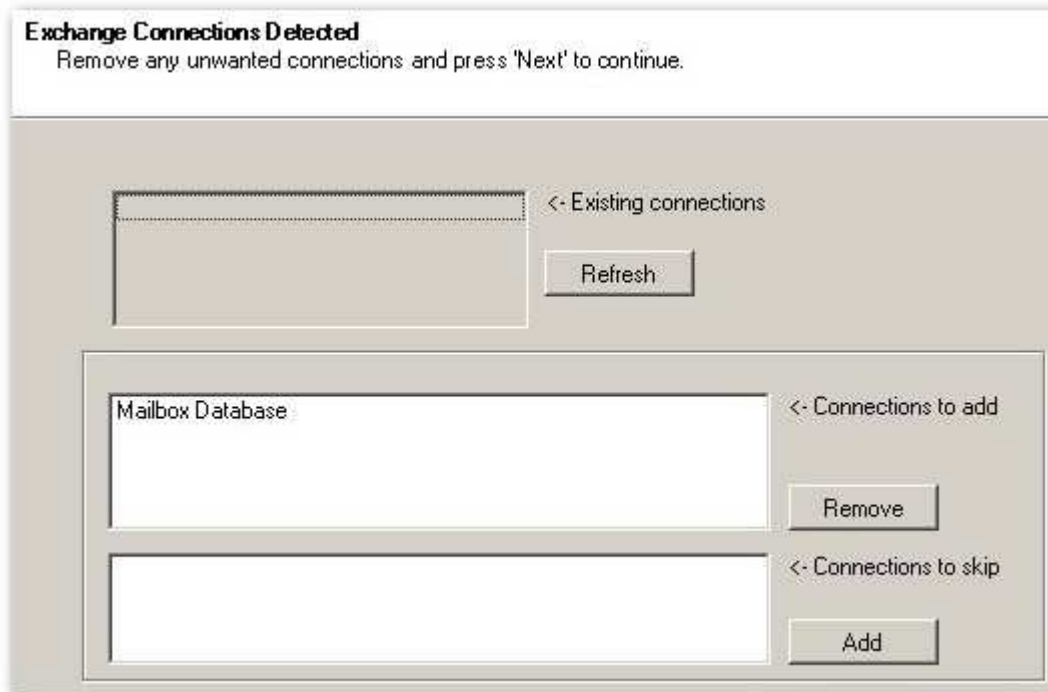
The next step involves running the "Microsoft Exchange" connection wizard to create an eControl connection to a target Exchange mailbox server. This procedure should detect all Exchange mailbox servers and build a unique connection for each server.

To create the Exchange Mailbox server connection(s):

1. If the "Riva" application is not already open, click "Start" > "All Programs" > "Omni" > "eControl" > "Configure Connections". This will open the Riva Application.
2. In the Riva Application select "Setup" and click on the "Microsoft Exchange" link in the "Connection Wizards" box. This will start the Exchange Connection wizard.
3. In the "Welcome to Microsoft Exchange Connection Wizard" window, click **Next >**.
4. In the "Choose Active Directory Connections" window, select those AD domain connections where Exchange servers are installed and click **Next >**.



- In the "Exchange Connections Detected" window, select any Mailbox connections that you do not want to create an eControl connection for and click the **Remove** button. Click **Next >** to continue.



- In the "Configuration Results" window, click **Finish** to close the wizard and create the Exchange mailbox server connection(s).
- This will add the Exchange connections below the Active Director connections under "Setup".



## Step 4 - Configure Home Folder Support

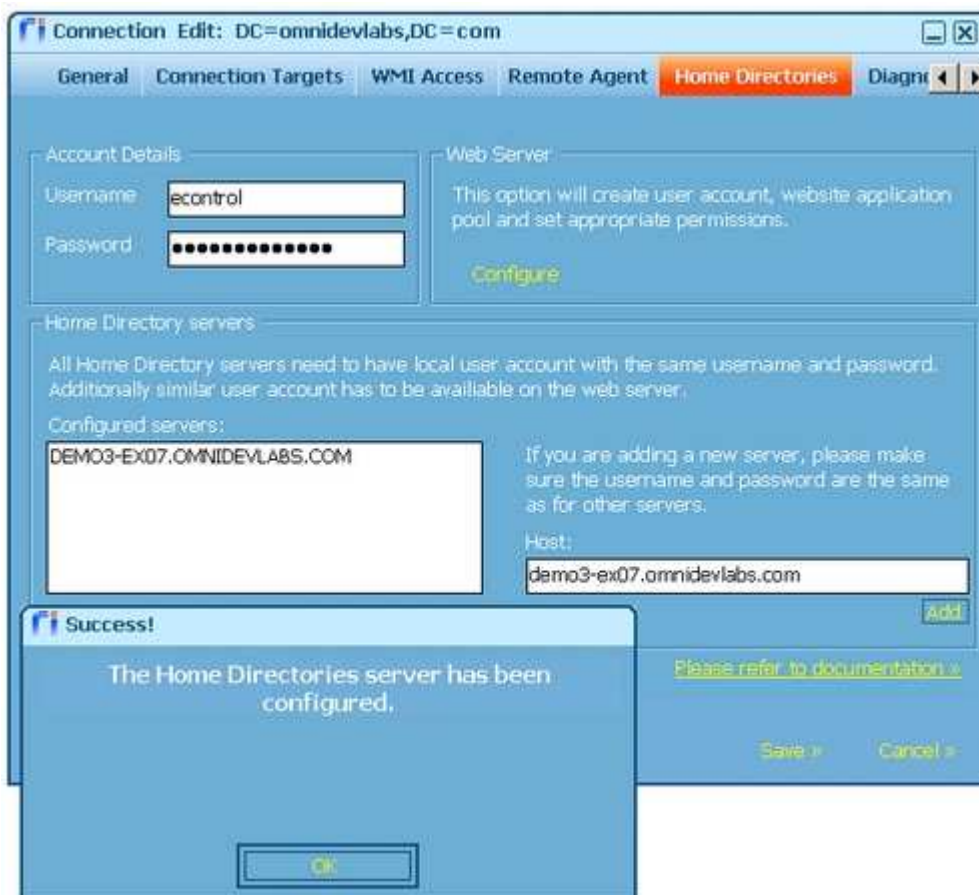
eControl uses WMI to enable home folder creation support between the eControl host server and the home folder host server(s). Prior to configuring home folder support and testing WMI, ensure that each Windows server hosting home folders has a local user created that uses the same account name and password as the AD eControl service account. The local "eControl" service account must be added as a member of the local "Administrators" group. If the server hosting home folders is a domain controller, add the AD eControl service account to the "Built-in Administrators" group. Test and ensure that the local eControl service account can create user accounts including home folders.

To configure home folder support on the local IIS server:

1. Open "Configure Connections" (Riva application) and open the AD domain connection under "Setup".
2. Under the "Home Directories" tab, configure the account details and configure the web server:



- Specify the "Username" and "Password" for the local eControl service account. This account must use the same logon name and password as the AD domain eControl service account.
  - Under "Web Server" click the **Configure** button. This will:
    - Create the local eControl service account and add it to the IIS\_WPG group,
    - Create an "eControl Pool" IIS application pool, set the identity for the application to use the local eControl service account, and
    - Set the eControl website to use the "eControl Pool".
  - At the "Success" window, click **OK**.
3. Add all the home folder hosting servers to the "Configured servers" list.



- Use the same Account Details "Username" and "Password" as was used for the Web Server configuration (step 2 above).
- Add the DNS name of a home folders host server to the "Host" field and click the **Add** link.
  - If the target server is configured with the local eControl service account, the server will be added to the list.

- If the target server is Windows 2003 and is not configured with the local eControl service account, eControl will create and configure the eControl service account on the target server and then add the server to the "Configured servers" list.
  - If the target server is Windows 2008 or if eControl cannot access the target server, then the attempt will fail. Hold down the **Ctrl** key and click **Add** again and eControl will manually add the target server to the "Configured servers" list. **NOTE:** The local eControl service account will still need to be created and configured on the target server.
- Click **OK**.

To test WMI:

1. Use the "WMI Access" tab to test remote windows servers that are hosting home folders to verify that they are WMI compliant:



The screenshot shows a dialog box titled "Connection Edit: DC=omnidevlab,DC=com". It has five tabs: "General", "Connection Targets", "WMI Access" (which is selected and highlighted in orange), "Remote Agent", and "Home Directories". The "WMI Access" tab contains the following text: "This option allows you to test WMI connectivity between the server and the home directories host." and "Please enter username and password of the user that has WMI access to the remote computer (username@domain):". Below this text are three input fields: "Username" with the value "econtrol@omnidevlab.com", "Password" with a masked password of ten dots, and "Server" with the value "demo3-ex07.omnidevlab.com". A "Test" button is located to the right of the "Server" field.

- For "Username", specify the AD logon name of the eControl service account for the AD domain that server hosting the home folders is installed into.
  - For "Password", specify the AD password for that eControl service account.
  - For "Server", specify the DNS name or IP address for the server hosting the home folders.
2. Click the "Test" button. If WMI is configured correctly, a successfully connection window will open.

## Step 5 - Install and Configure the Omni eControl Connection Agent Service

The eControl host server needs to communicate through an Omni eControl Connection Agent to Exchange servers. This agent service needs to be installed on a designated server. The options include:

- **Single Version of Exchange (2003 or 2007)** – install the eControl Connection Agent service on the eControl Host Server or a domain controller, an exchange server, or other server that will act as an eControl Remote Agent Server. Exchange management tools (32 bit only) for the version of Exchange being managed must be installed on this server.
- **Single Version of Exchange 2010** – contact Omni technical for assistance.
- **Mutiple Versions of Exchange (2003 and 2007)** - install the eControl Connection Agent service on the eControl server, a domain controller, or a designated server. Exchange management tools (32 bit only) for both versions of Exchange being managed must be installed on this server.
- **Multiple Versions of Exchange that include Exchange 2010** - install the eControl Connection Agent service on the eControl server, a domain controller, or a designated server. Exchange management tools (32 bit only) for 2003 and/or 2007 versions of Exchange being managed must be installed on this server. Contact Omni technical support for custom configuration.

### Install the eControl Connection Agent Service

To install and configure the eControl Connection Agent service:

1. If eControl has not been installed on this server, ensure that the server meets system requirements for eControl and following the procedure detailed in **STEP 1 – Install eControl** (see pages 10-13). At the **eControl Web Component Configuration Window** window



click **No, Skip or Configure Manually**.

2. Create and configure the Active Directory connections following the procedure detailed in **STEP 2 – Configure the Target Active Directory Domain Connections** (see pages 14-18).

3. Create and configure the Exchange connections following the procedure detailed in **STEP 3 – Configure the Target Exchange Mailbox Server Connections** (see pages 18-20).
4. To install the eControl Connection Agent service, run the **InstallAgent.bat** file located in C:\Program Files\Omni\eControl\Omni.Services.Connection

```

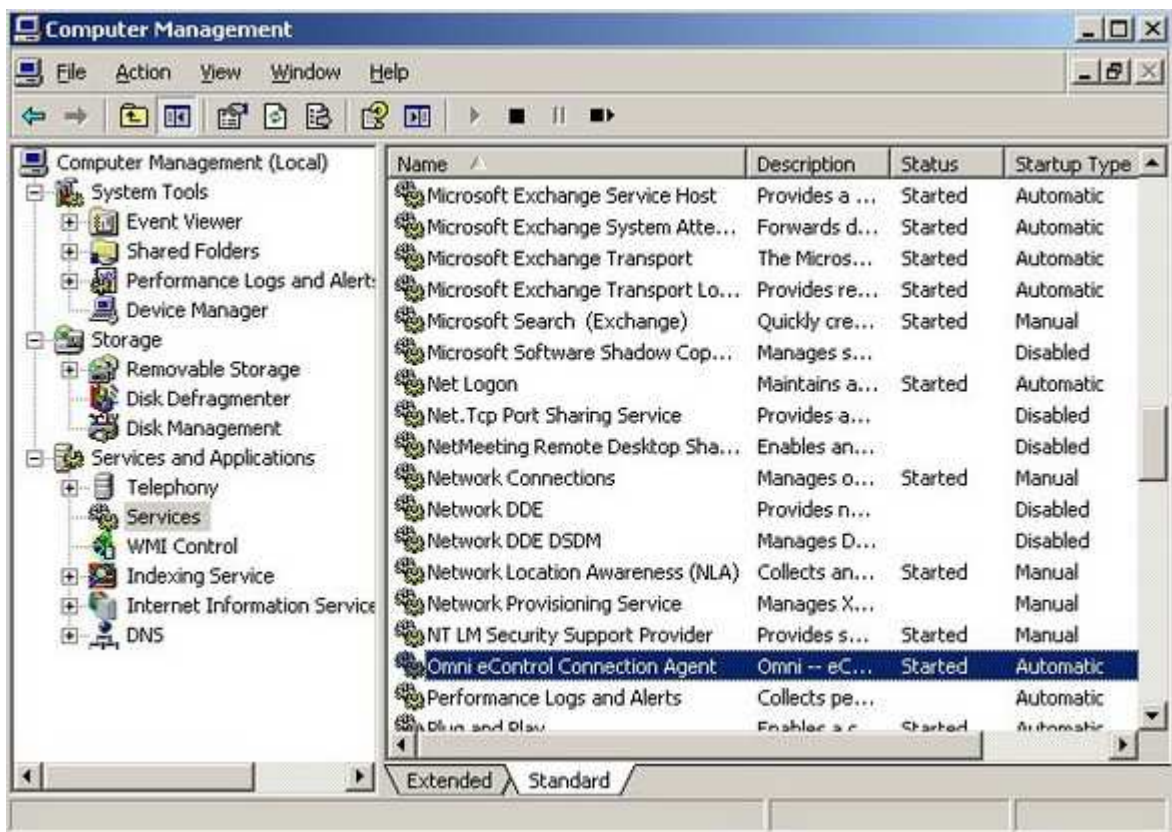
c:\C:\WINDOWS\system32\cmd.exe
Installing Service...
ServiceInstallerEx : : Successfully configured Failure Actions
ServiceInstallerEx : : Successfully set description
Done!

Press any key to continue . . .
Would you like to start the service now ? <y/n>:_

```

Answer **y** to complete the installation of the service.

5. Open **Computer Management** and under **Services** locate the **Omni eControl Connection Agent**.



6. Open the properties of this agent and select the **Log On** tab. Modify the settings to use **This account**, click the **Browse** button and locate and select the eControl AD domain service account.



Provide the password and click **OK**.

- At the "Services" window, click **OK**. In **Computer Management > Services**, restart the Omni eControl Connection Agent service.

## Step 6 - Configure Remote Agent Support

- If the eControl Connection Agent service is installed on the eControl host server, there is no additional configuration required.
- If the eControl Connection Agent service is installed on a different server, then both the eControl host server and the Remote Agent server need to be configured.

### Configure "Remote Agent" Support on the eControl Host Server

To configure the eControl host server to connect to the Remote Agent server:

- Open "Configure Connections" (Riva application) and open the AD domain connection under "Setup".
- Under the "Remote Agent" tab, specify the **Host** that is running the eControl Connection Agent service.



3. Click **Save >>** to save the settings and close the Connection Edit window.

### Configure "Remote Agent" Support on the "Agent" Server

To configure the Remote Agent server to connect to the eControl host server:

1. Open "Configure Connections" (Riva application) and open the AD domain connection under "Setup".
2. Under the "Remote Agent" tab, specify the **eControl Server IP** that is running the eControl website.



3. Click **Save >>** to save the settings and close the Connection Edit window.

### Step 7 - Restart IIS

1. Once all eDirectory and GroupWise connection settings have been configured and tested, IIS on the eControl Host Server must be restarted by performing an **iisreset /restart**.

### Initial Sign-on

The first time that an eControl Login is performed is important as there are some initialization tasks that get performed. The first login should use the credentials of the account configured in the Active Directory connection for the primary Active Directory domain.

The initial login will provide an option to create a sample eControl configuration which can be used for training and evaluation.

You can access the eControl login from:

- <http://localhost> on the eControl host server
- <http://<eControl host server IP address>> from any browser on any desktop

eControl has been optimized to work best with Internet Explorer 7.0 or higher, but would work with most browsers that support AJAX.



**eControl Login:**

Username:

Password:

Language:

- English (Canada)
- Español (Chile)
- Français (Canada)

- **Username** – provide the login name configured to the Active Directory connection configured during the installation. If there are multiple AD connections, choose the domain where you want to host the eControl management accounts from.
- **Language** – This will appear if eControl was installed with multiple language support. The visible language of the eControl web pages will be localized to the language selected during the login.

To properly initialize the eControl web portal:

1. Login as the primary eControl administrator configured in the Active Directory connection during the installation.

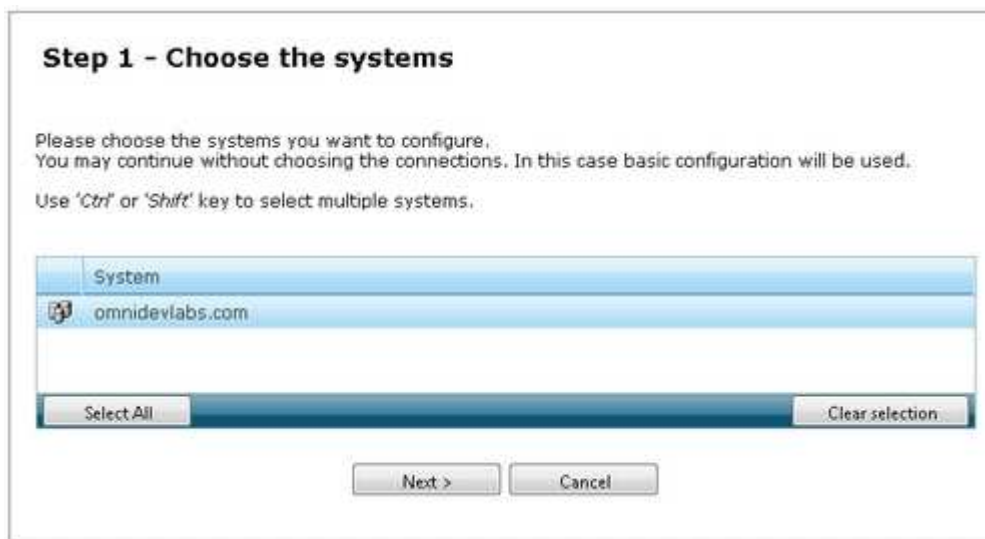
2. At the "Welcome to eControl" page:



- Choose **START** to run the basic configuration wizard, or
- Choose **Skip wizard** to skip the wizard (see "Setup the Basic Configuration" below)

## Setup the Sample Configuration

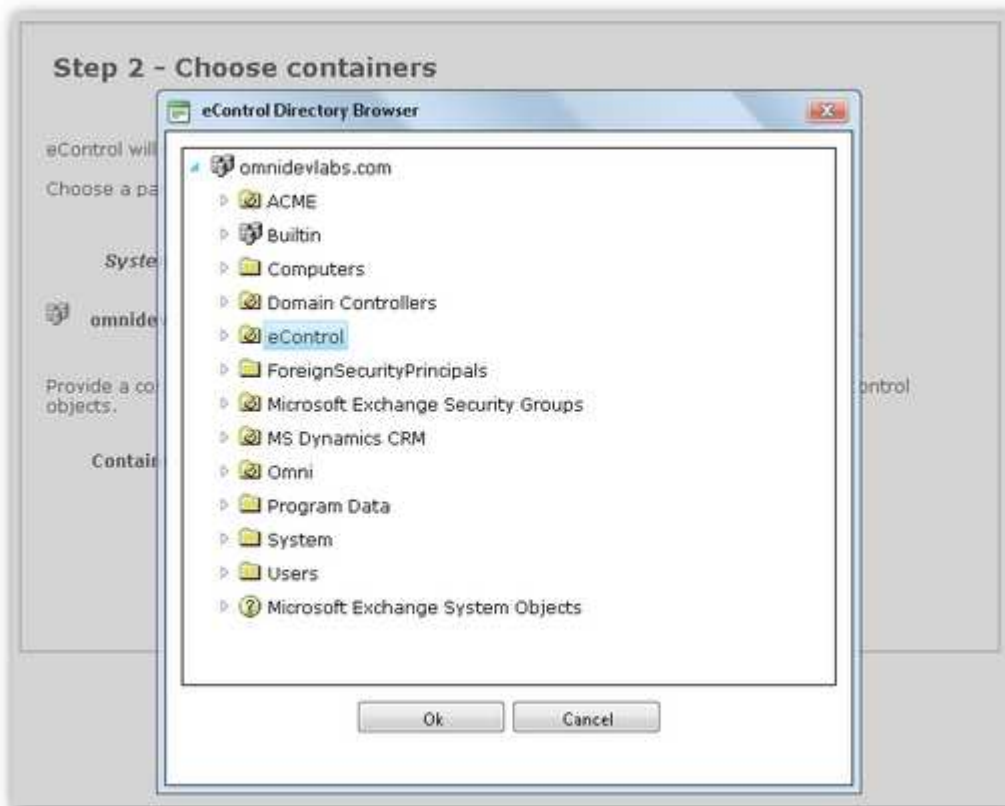
3. Assuming that **START** is selected, Step 1 will present a list of Active Directory domains that connections have been created during the eControl installation. If you want sample eControl objects created in all the domains, click "**Select All**", otherwise, select the domain(s) from the list and click **Next >**.



4. In **Step 2 – Choose Containers**, click on the ellipsis beside the empty text box



to open an eControl Directory Browser window. Navigate the Active Directory domain and select the container to act as the parent for the eControlSample container and sample objects.



In this example, an eControl container has been previously created to hold the **econtrol** user object that was configured in the Active Directory connection during the setup.

Click **OK** to close the eControl Directory Browse window. The selected container will appear in the text box.

System	Container
 omnidevlabs.com	OU=eControl,DC=omnidevlabs,DC=com

- In the **Step 2 – Choose Containers** window, click **Next >** to continue.
- In the **Step 3 – Select modules** window click **Next >**.

### Step 3 - Select modules

Please select the modules you would like to configure.

If you continue without selecting the modules, a basic configuration will be used.

Press 'Next' to view the summary.

MANAGE	<input checked="" type="checkbox"/>
CREATE	<input checked="" type="checkbox"/>
SELF-SERVICE	<input checked="" type="checkbox"/>
AUDIT	<input checked="" type="checkbox"/>

- In the **Step 4 – Summary** window, click **Next >**.

### Step 4 - Summary


Please confirm the following information is correct.

After you press 'Next', eControl will create sample objects for the selected modules.

**Selected module(s)**

- AUDIT
- CREATE
- MANAGE
- SELF-SERVICE

**Container(s) to be created**

System	Container
 omnidevlabs.com	ou=eControlSample,OU=eControl,DC=omnidevlabs,DC=com

8. In the **Save configuration to disk** window, click **Next >**.



9. In the "Wizard Complete" window, click **Apply Settings**.



## Setup the Basic Configuration

1. Assuming that the **Skip wizard** button is clicked, in last step window click the Finish button.



2. In the “Wizard Complete” window, click **Apply Settings**.



## License eControl

### Request a License

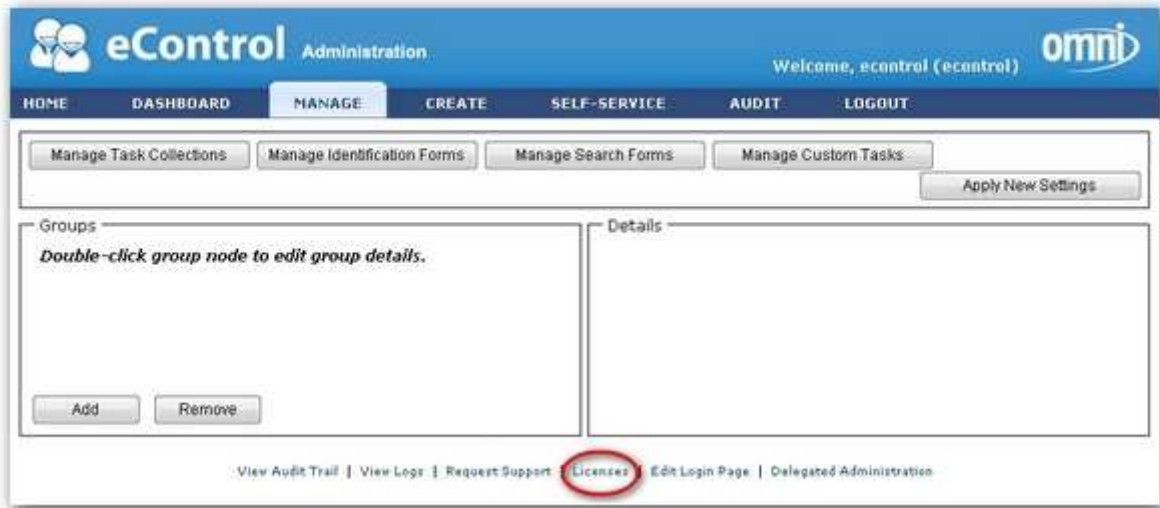
eControl is licensed from the “Administration” panel in the eControl portal website. You must first request a license:

1. In the eControl portal, notice that the footer indicates that eControl is running in DEMO mode.

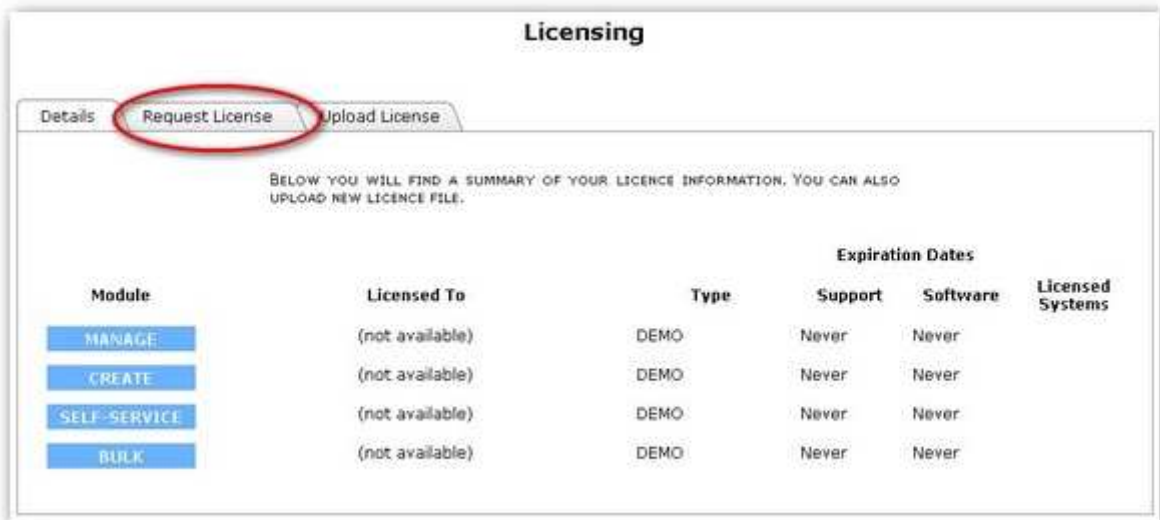


Click on the **Administration** in the menu bar.

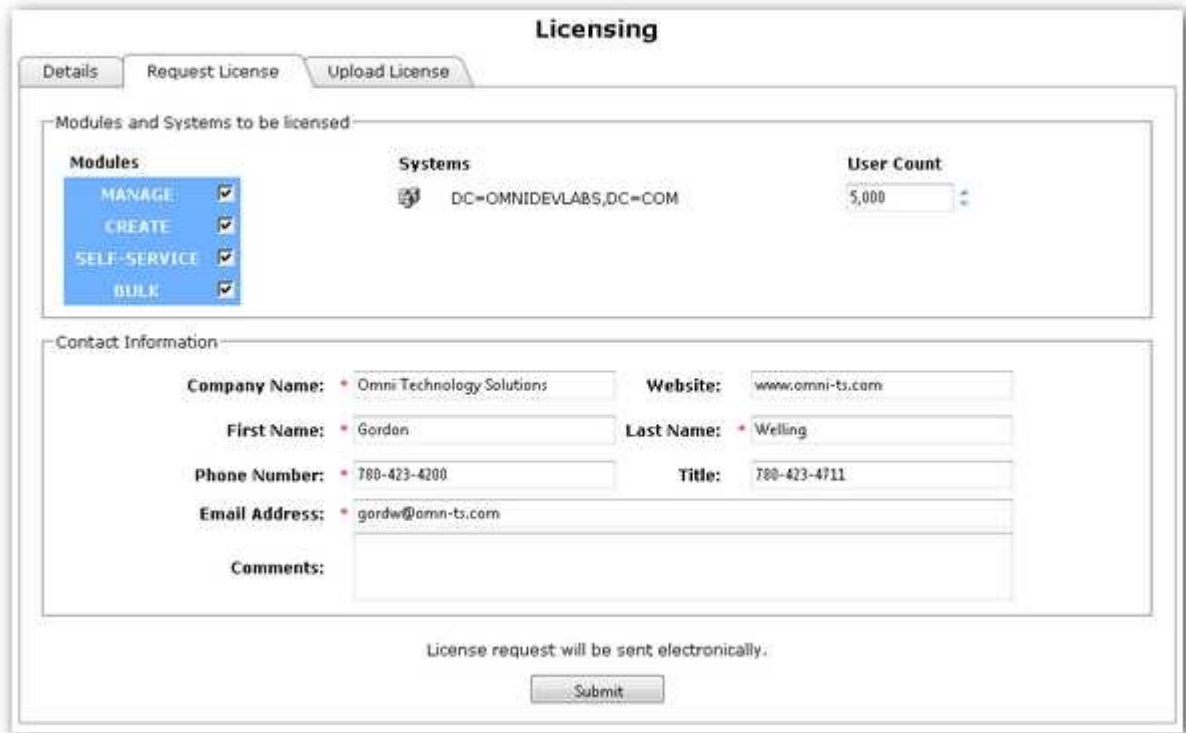
- In the "Administration – Manage" page, click on the **Licenses** link in the footer.



- In the "Licenses - Details" page, click on the **Request License** tab.



- In the "Licenses – Request License" page, select modules to license, specify the desired license count and complete the contact information. The '\*' next to a field indicates information must be provided.



Click **Submit** to continue. A successful upload will be indicated.

### Upload the License

A .license file will be sent by email within 24 working hours. Save a copy of the .license file locally and complete the following steps:

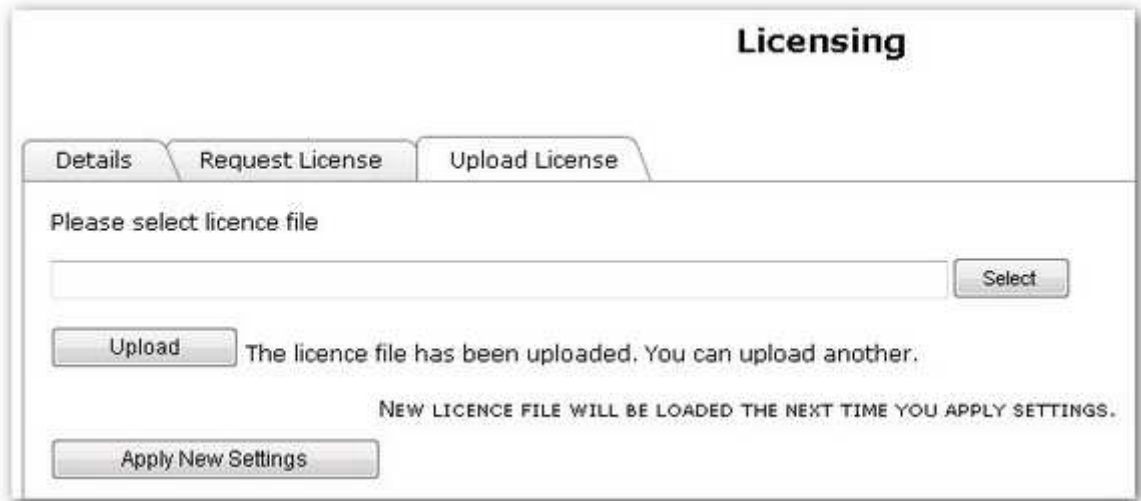
1. Login in eControl as the eControl service account.
2. Select **Administration** from the menu bar and click on the **Licenses** link in the footer.



3. To apply the license file, click the **Upload License** tab. Click the **Select** button, navigate to and select the .license file and click **Upload**.



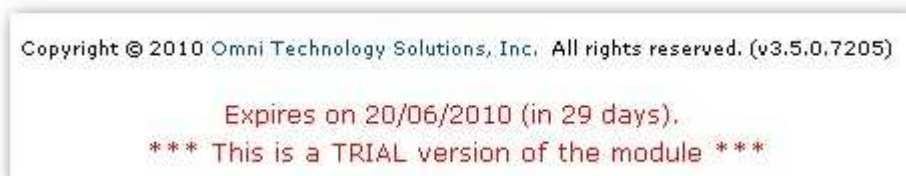
- If the license file upload is successful, click **Apply New Settings**.



- License details can be verified under the **Details** tab.



- Once the license has been applied, the license status in the footer should change.



**Note:** If the footer information does not reflect the new license information, logout of eControl and close the browser. Perform an **IISRESET /RESTART**. Open a browser and logon into eControl and check the footer information.

## Assign Delegated Administration

Access to the eControl "Administration" pages is limited to the account configured in the eDirectory connection (or an Active Directory connection in a mixed Directory environment), and to members of the group that is assigned "Delegated Administration."

To assign "Delegated Administration":

1. Create a group in eDirectory (e.g. *eControl-Admins*) and add members that should be provided access to the eControl administration panel.
2. Login to eControl as the eDirectory connection user.
3. Click on "Administration" in the menu bar.
4. Click on the "Delegated Administration" link in the footer of any "Administration" panel page.
5. Click **Add**. Navigate to and select the desired group for eControl Delegated Administrators.
6. Navigate to the "Manage" page and click the **Apply Settings** button.
7. Logout and login as a Delegated Administrator.

## Upgrading eControl

There are 2 types of upgrading for eControl:

- **Upgrade** – upgrade an existing installation of eControl to a new major release, e.g. from eControl 2.5 to eControl 3.x
- **Update** – update an existing eControl installation to a newer minor release, e.g. from eControl 3.3 to 3.4

### Upgrade eControl 2.5 to eControl 3.x

Upgrading eControl 2.5 to the latest release of eControl 3.x is a two step process:

- Upgrade eControl 2.5 to eControl 3.0. This usually involves migrating eControl 2.5 from a Windows 2000 server platform to eControl 3.0 on a Windows 2003 or 2008 server platform.
- Update the eControl 3.0 installation to the latest 3.x release.

Upgrading eControl requires direct intervention and assistance from Omni technical support. Customers must contact Omni to schedule an eControl 2.5 upgrade.

### Update eControl to the Latest Release

Upgrading eControl 3.x to the latest release can be performed by the customer without assistance from Omni technical support.

## Confirm the eControl Installation

It is important to upgrade all related installations of eControl. Confirm the following information:

- On the **eControl host server**:
  - Is the Omni Connection Service Agent installed?
    - Open Windows Manage > Services and confirm if there is an **Omni eControl Connection Agent** service installed and "Started".
    - View the properties of this agent and under "Log On" confirm how the agent is configured to log on as. If the "Local System account" is not selected, record the account being used as this will have to be reconfigured after the agent is reinstalled (see below).
- **On the eControl remote agent server** hosting the Omni eControl Connection Agent:
  - Open Windows Manage > Services and confirm if there is an **Omni eControl Connection Agent** installed and "Started".
  - View the properties of this agent and under "Log On" confirm how the agent is configured to log on as. If the "Local System account" is not selected, record the account being used as this will have to be reconfigured after the agent is reinstalled (see below).

## Backup eControl Configuration and License Files

On the **eControl host server**, use Windows explorer make a copy of the following folders:

- On a Windows 2003 server:
  - C:\Program Files\Omni\Riva\Configuration
  - C:\Program Files\Omni\Riva\Licenses
- On a Windows 2008 server:
  - C:\Program Files (x86)\Omni\Riva\Configuration
  - C:\Program Files (x86)\Omni\Riva\Licenses

On the **eControl remote agent server**, use Windows explorer make a copy of the following folders:

- On a Windows 2003 server - C:\Program Files\Omni\Riva\Configuration
- On a Windows 2008 server - C:\Program Files (x86)\Omni\Riva\Configuration

## Uninstall the Omni eControl Connection Agent Service

Uninstall the eControl Connection Agent service from the eControl host server or the eControl remote agent server where the Agent is installed (*Note: the path will vary depending on the release of eControl currently installed*). Run the **UninstallAgent.bat** file from one of the following locations:

- C:\Program Files\Omni\eControl\Agents\Omni.Interop.Agent\
- C:\Program Files\Omni\eControl\Agents\Omni.Services.Connection\

- C:\Program Files\Omni\eControl\Agents\Omni.Services.Connection.Agent\
- C:\Program Files (x86)\Omni\eControl\Agents\Omni.Interop.Agent\
- C:\Program Files (x86)\Omni\eControl\Agents\Omni.Services.Connection\
- C:\Program Files (x86)\Omni\eControl\Agents\Omni.Services.Connection.Agent\

## Uninstall eControl

Uninstall eControl from the eControl host server and the eControl remote agent server where the Omni eControl Connection Agent is installed. This can be done in one of two ways:

- Use **Windows Control Panel > Add or Remove Programs** to remove "Omni eControl" **OR**
- Run the eControl **setup.exe** installer for the version of eControl currently installed and select "**Remove Omni eControl**"

## Reinstall eControl

Reinstall eControl on the eControl host server and the eControl remote agent server where the Omni eControl Connection Agent needs to be installed.

1. Download and extract the latest release of eControl
2. Run the **setup.exe** file and install eControl in the same manner and in the same locations that it was previously installed.
  - on the eControl host server first
  - on the eControl remote agent server

## Reinstall Omni eControl Connection Agent Service

Reinstall eControl on the eControl host server or the eControl remote agent server, wherever it was installed previously:

1. Run the **InstallAgent.bat** file on the eControl server and on the Exchange servers where the Omni Services Connection Agent is installed:
  - Run the **InstallAgent.bat** file from  
C:\Program Files\Omni\eControl\Agents\Omni.Services.Connection
  - Answer **Y** to the question to start the service.
  - Using Windows Manage > Services configure the Log On properties of the Omni Services Connection Agent to match those credentials confirmed before starting the update process and restart the agent service.
2. Run **iisreset /restart**

## Restore the eControl Configuration and Licenses Folders

(Optional) After the update is completed, if eControl does not appear to connect to the configured AD domains and Exchange Mailbox servers, or if the eControl website appears to be running in "DEMO" mode, restore the backup copies of the \Configuration and \Licenses folders:

1. Close the Riva application.
2. Using Windows Task Manager, end the process for the **Omni.Services.Connection.exe** process.
3. Restore the backup files as required:
  - Copy the backup \Licenses folder to C:\Program Files\Omni\Riva\Licenses
  - Copy the backup \Configuration folder to C:\Program Files\Omni\Riva\Configuration
4. Run **iisreset /restart**
5. Open a browser and login into the eControl portal. A new **Omni.Services.Connection.exe** process should launch in Windows Task Manager.
6. Confirm that the eControl web portal is behaving as expected.
7. Close Windows Task Manager.

## Support for eControl

### Reporting a Technical Issue

The eControl "Administration" pages include a "Request Support" link in the footer.



Complete the form and click **Submit**. The eControl server will send the issue and a copy of the application logs and config files to our technical support team.

### eControl - Request Support

THANK YOU FOR TAKING TIME TO SUBMIT AN ISSUE REPORT. YOUR FEEDBACK IS INVALUABLE TO HELPING IMPROVE ECONTROL AND INCREASE YOUR SATISFACTION.

YOUR ISSUE WILL BE ASSIGNED TO A CASE MANAGER FOR RESOLUTION. PLEASE EXPECT TO BE CONTACTED WITHIN TWO BUSINESS DAYS.

<b>First Name:</b> *	<input type="text" value="Gordon"/>	<b>Last Name:</b> *	<input type="text" value="Welling"/>
<b>Company Name:</b> *	<input type="text" value="Omni Technology Solutions"/>		
<b>Phone Number:</b> *	<input type="text" value="+1.780.423.4200"/>	<b>Severity:</b> *	<input type="text" value="Normal"/>
<b>Email Address:</b> *	<input type="text" value="gordw@omni-ts.com"/>		
<b>Issue Type:</b> *	<input type="text" value="Application Error"/>		
<b>Problem Title:</b> *	<input type="text" value="Licensing not working"/>		
<b>Problem Description:</b> *	<input demo\"="" mode."="" type="text" value="I applied the license file provided and eControl website is still working in \"/>		

(Note: Please include steps to reproduce)

### Upgrade and Maintenance Support Agreements

Customers who have current upgrade and support contracts are eligible to receive full email and telephone support Monday to Friday between 9:00 a.m. and 5:00 p.m. Mountain Time during regular working days. Limited email support may be available during extended hours. Email and telephone support is also available to customers who are evaluating Riva. 365x7x24 support is available for optional purchase.

## Contacting Support

You can contact support by phone, email or fax.

Email: support@omni-ts.com  
Phone: +1-780-423-4200  
Fax: +1-780-423-4711

You can also use the "Contact Us" link in the upper right-hand corner of our web site. Please include as many details as possible when requesting support:



The screenshot shows a web-based contact form titled "contact form". It contains several input fields: "Topic" (dropdown menu with "Technical Support" selected), "Subject" (text box with "License not working"), "Product" (dropdown menu with "Management - eControl" selected), "Your Name" (text box with "Ian"), "Your Email" (text box with "Sample"), and "Contact Number" (text box with "+1.234.567.8901"). Below these fields is a CAPTCHA section with the image "Which hallowed" and a text input box containing "which hallowed". To the right of the CAPTCHA is a ReCAPTCHA logo with the text "stop spam. read books.". Below the CAPTCHA is a "Message" text area containing the text: "I have applied the .license file but eControl indicates that it is still running in "Demo" mode.". At the bottom of the form is a "Send »" button.

### Online Resources

Online resources for Riva include:

- Product Documentation: Go to [www.omni-ts.com](http://www.omni-ts.com) select **Support**, follow the link for **Documentation** and select **eControl and EMU Documentation**
- eControl Flash Tutorials: will be added to [www.omni-ts.com/quicktours](http://www.omni-ts.com/quicktours)
- Support Forum: Go to [www.omni-ts.com/Forum](http://www.omni-ts.com/Forum) and:
  - Select the **eControl ~ Installation, Management and Support** forum.
  - "**eControl Tips**" available at <http://www.omni-ts.com/forum/post--2124--page-1.html> is a collection of forum articles to provide troubleshooting and advanced management steps for eControl.
- Product FAQ: Go to <http://www.omni-ts.com/web-management> and select **Frequently Asked Questions**