Wireless Network Setup

airCentral and airCentral-Academic

IT Services
http://www.central.edu/ITServices/Wireless Network Setup.PDF
# Table of Contents

1. INTRODUCTION ........................................................................................................ 5
   1.1 PREREQUISITES ..................................................................................................... 5

2. GENERAL SETTINGS .................................................................................................... 5
   2.1 ENCRYPTION TYPE ............................................................................................... 5
   2.2 AUTHENTICATION TYPE ....................................................................................... 5

3. WINDOWS 7 SETUP .................................................................................................... 5
   3.1 SETUP OF airCentral ON WINDOWS 7 ................................................................. 5
   3.2 LOGON TO airCentral OR airCentral-ACADEMIC WITH WINDOWS 7 .......... 12

4. WINDOWS VISTA SETUP ........................................................................................... 14
   4.1 SETUP OF airCentral ON VISTA ................................................................. 14
   4.2 LOGON TO airCentral OR airCentral-ACADEMIC WITH VISTA .............. 20

5. WINDOWS XP SETUP ................................................................................................. 21
   5.1 WIRELESS SETUP ............................................................................................... 21
   5.2 LOGGING IN TO WIRELESS NETWORK WITH PERSONALLY OWNED COMPUTERS ............. 28

6. MAC OS X SETUP ...................................................................................................... 30
   6.1 SYSTEM PREFERENCES ....................................................................................... 30

APPENDIX A – BACK-OUT PROCEDURES ................................................................. 34
   BACK OUT PROCEDURES FOR WINDOWS XP ................................................. 34

APPENDIX B - TROUBLESHOOTING ................................................................. 37
### Revision History

<table>
<thead>
<tr>
<th>Version Number</th>
<th>Date</th>
<th>Modified By</th>
<th>Changes Made</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release: 1.0</td>
<td>3/12/07</td>
<td>Lee Weers</td>
<td>Version 1.0</td>
</tr>
<tr>
<td>Release: 1.01</td>
<td>3/13/07</td>
<td>Lee Weers</td>
<td>Updated the WPA2 patch</td>
</tr>
<tr>
<td>Release: 1.1</td>
<td>3/13/07</td>
<td>Lee Weers</td>
<td>Added Vista setup and screen shots. Spelled out links. Added driver update to troubleshooting</td>
</tr>
<tr>
<td>Release: 1.11</td>
<td>4/5/07</td>
<td>Lee Weers</td>
<td>Added auth.central.edu to XP section</td>
</tr>
<tr>
<td>Release 1.12</td>
<td>10/27/08</td>
<td>Lee Weers</td>
<td>Updated information about WPA2 patch</td>
</tr>
<tr>
<td>Release 2.0</td>
<td>11/18/2010</td>
<td>Lee Weers</td>
<td>Removed the automated installs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Included Windows 7 setup instructions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Removed WPA-TKIP references</td>
</tr>
</tbody>
</table>
Conventions Used in This Document
The following terms and text formats are used throughout this document:

**Text formats:**

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check “CheckBoxName”</td>
<td>Instructs user to click on the box that normally precedes the name “CheckBoxName” in the window. <em>Check</em> means that the box should be filled in/checked, <em>unchecked</em> means it should be empty.</td>
</tr>
<tr>
<td>Uncheck “CheckBoxName”</td>
<td></td>
</tr>
<tr>
<td>From the menu bar, select File ➔ Edit</td>
<td>Instructs user to go to the Menu Bar for the window, find the File menu, then follow the arrow (➔) to the Edit sub-menu.</td>
</tr>
<tr>
<td>Press &lt;KEY&gt;</td>
<td>Instructs user to press a key on the keyboard labeled &lt;KEY&gt;.</td>
</tr>
<tr>
<td>Select “RadioButtonName”</td>
<td>Instructs user to click on the circle that normally precedes the name “RadioButtonName” in the window.</td>
</tr>
<tr>
<td>Click on TabName tab.</td>
<td>Instructs user to click on the tab with the name TabName.</td>
</tr>
<tr>
<td>WindowName window</td>
<td>Refers the user to the window which as the name WindowName in the window title bar.</td>
</tr>
<tr>
<td>Choose “ITEM” from the PullDownName pull-down menu.</td>
<td>Instructs the user to click on and hold the pull-down menu with name PullDownName and select “ITEM” from the list.</td>
</tr>
<tr>
<td>Press the ButtonName button.</td>
<td>Instructs the user to click on the button that is labeled ButtonName.</td>
</tr>
<tr>
<td>Note: text content</td>
<td>Notes present important, interesting or useful additional information that may help you avoid problems or offers advice that relates to the particular topic.</td>
</tr>
<tr>
<td>Type “TEXT” in FieldName field.</td>
<td>Instructs user to type “TEXT” (without quotes) in the field labeled FieldName.</td>
</tr>
<tr>
<td>Expand the ItemName item.</td>
<td>Instructs the user to click on the “+” sign to the left of ItemName to cause it to expand its tree.</td>
</tr>
<tr>
<td>Highlight &quot;ItemName&quot; from the scroll-down menu.</td>
<td>Instructs the user to go through the scroll-down menu and find the item in the list named &quot;ItemName&quot; and highlight it, usually by clicking on the text &quot;ItemName&quot;.</td>
</tr>
<tr>
<td>Setup.exe</td>
<td>Refers to the application named Setup.exe</td>
</tr>
<tr>
<td>Change to C:\WINNT</td>
<td>Instructs the user to change to the WINNT directory on the C Drive.</td>
</tr>
<tr>
<td>Select the ItemName container/object</td>
<td>Instructs the user to highlight the container or object with the name of ItemName.</td>
</tr>
</tbody>
</table>

**Terms:**

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container</td>
<td>A container is an object that contains other objects. On left/right split pane windows items that appear in the left pane are usually Containers.</td>
</tr>
<tr>
<td>Object</td>
<td>On left/right split pane windows items that appear in the right pane are usually Objects.</td>
</tr>
</tbody>
</table>
1. Introduction

This document will go through setting up the Windows Zero Config client for 802.1x authentication. This is necessary in order to gain access to all of the network resources available to the students and employees. With this setup it will eliminate the need for a vpn client and it will still maintain the security by using encryption with rotating keys for all of the traffic.

1.1 Prerequisites

Windows XP with service pack 3  
Windows Vista  
Windows 7  
Mac OS X (ver 10.3 or later)

2. General settings

For those tech savvy users that just want the settings to configure the network.

2.1 Encryption Type

The wireless network is WPA2 and AES.

2.2 Authentication Type

The authentication type is MS-CHAP-V2 and PEAP  
For personally owned computers you will need to uncheck the Authenticate with the computer account. Also you will need to uncheck the “Use my windows Login and Domain information”

3. Windows 7 Setup

The steps below are the detailed steps to setup Windows 7

3.1 Setup of airCentral on Windows 7

From the Windows Logo button “Connect to”
Select “airCentral” and then Connect

To setup the network manually select “Open Network and Sharing Center”
Select “Manage wireless networks”

Select “ADD”
Click on Manually create a network profile

Students type “airCentral” for Network Name
Employees type “airCentral-Academic” for Network Name
Note: The network names are case sensitive

Choose “WPA2-Enterprise” for Security type
Choose “AES” for Encryption type

Click Next
Select "Change connection settings"
Click on the **Security tab**
Check "Connect to these servers:"
Type "auth.central.edu" for the Connect to these servers box

Click **Configure**
Wireless Network Setup

Uncheck “Automatically use my Windows logon name and password (and domain if any)

Click OK 3 times
3.2 Logon to airCentral or airCentral-Academic with Windows 7

After setting up the connection you can connect to the network

Click on the balloon that says “Additional information is required to connect to airCentral”

![Windows Security Alert]

Enter your Central College username and password
Type “CENTRALCOLLEGE” in the Logon Domain box.
Note: Central.edu will not work for the domain. It must be Centralcollege with no space
Click on the balloon that says “Additional information is required to connect to airCentral”

Click **OK** to accept the certificate
4. **Windows Vista Setup**

The steps below are the detailed steps to setup Windows Vista

4.1 **Setup of airCentral on Vista**

From the Windows flag select “Connect to”

Select “Set up a connection or network”

Select “Manually connect to a wireless network”
Students type “airCentral” for Network Name
Employees type “airCentral-Academic” for Network Name

*Note: The network names are case sensitive*

Choose “WPA2-Enterprise” for Security type
Choose “AES” for Encryption type

Click **Next**
Enter information for the wireless network you want to add

Network name: airCentral

Security type: WPA2-Enterprise

Encryption type: AES

Security Key/Passphrase: [blank]

Start this connection automatically

Connect even if the network is not broadcasting

Warning: if you select this option, your computer’s privacy might be at risk.

Select “Change connection settings”
Click on **Settings**
Check “Connect to these servers:"
Type “auth.central.edu” for the Connect to these servers box

Click **Configure**
Uncheck “Automatically use my Windows logon name and password (and domain if any)

Click **OK** 3 times
4.2 Logon to airCentral or airCentral-Academic with Vista

After setting up the connection you can connect to the network.

Click on the balloon that says “Additional information is required to connect to airCentral”

Enter your Central College username and password
Type “CENTRALCOLLEGE” in the Logon Domain box.

*Note: Central.edu will not work for the domain. It must be Centralcollege with no space*

Click on the balloon that says “Additional information is required to connect to airCentral”
Click **OK** to accept the certificate

5. **Windows XP Setup**

The steps below are the detailed steps to setup Windows XP

5.1 **Wireless setup**

Right click on the wireless network icon by the system tray clock

Select “View Available Wireless Networks”

Select “Change advanced Settings”
Select the "Wireless Networks" Tab.
Click ADD
For students type “airCentral” for the Network name (SSID)
For employees type “airCentral-Academic” for the Network name (SSID)

Change the Network Authentication to WPA2.

Change the Data Encryption to AES if you have WPA2 selected.

Note: for WPA2 to be enabled you need to have the WPA2 patch installed.
(http://www.central.edu/ITServices/WindowsXP-KB917021-v3-x86-ENU.exe)
Click on the “Authentication” Tab
Change the EAP Type to “Protected EAP (PEAP)"

For personally owned computers Uncheck the box by “Authenticate as computer when computer information is available”

Click on Properties
The box by “Validate server certificate” should be checked. 
Check “Connect to these Servers” and type in “auth.central.edu” 
Check “Enable Fast Reconnect”

Click on Configure by Secured password (EAP-MSCHAP-v2)
Wireless Network Setup

For personally owned computers Uncheck the box “Automatically use my Windows logon name and password (and domain if any)”

Click OK 4 times

5.2 Logging in to Wireless network with personally owned computers

After setting up the wireless network you will see a balloon by your wireless connection.
Click on this balloon and a Login box will pop up.

*Note: This box may appear behind other open windows*

Enter in your Central College username
Enter in your Central College password
For Logon domain enter “CENTRALCOLLEGE” Central.edu will not work.

Click **OK**

You will now get another balloon to click on.
Click **OK** to accept the server certificate

6. **Mac OS X Setup**

   The steps below are the detailed steps to setup Mac OS X

6.1 **System Preferences**

   Enable your AirPort
   Go to System Preferences and go to the network setup
   Show the Airport
Change the By default, join: drop down box to Preferred networks
Click the + button

Choose a security type and enter the name of the AirPort network to join with an optional password.

- **Network Name:** airCentral
- **Wireless Security:** WPA2 Enterprise
- **User Name:** 
- **Password:** 
- **802.1X Configuration:** Automatic

Click the lock to prevent further changes.
Wireless Network Setup

For students enter “airCentral” for the Network Name
For employees enter “airCentral-Academic” for the Network Name

Enter centralcollege\Username for the username
Enter your Central College username password

Select OK
Appendix A – Back-out Procedures

Back out Procedures for Windows XP

Right click on the wireless network icon by the system tray clock
Select “View Available Wireless Networks”

Select “Change advanced Settings”

Select the “Wireless Networks” Tab.
Highlight the wireless network you wish to remove
Select Remove
Wireless Network Setup

Central College IT Services

Version 1.12
Appendix B - Troubleshooting

In some cases when clients cannot connect to the network you may need to Uncheck the “Validate Server Certificate” Box found in section 5.1.

Most new laptops will come with a vendor’s wireless network configuration utility. This may need to be used to setup the wireless network as opposed to the Windows Zero Config.

Another reason why a client may not be able to connect is that the wireless card drivers are out of date. This will require obtaining the latest driver from the manufacturer’s website.