InfiniTV 4 Installation Instructions

1. Obtain a CableCARD from your cable TV service provider

1. Call your cable TV service provider and tell them you need a **multi-stream CableCARD** (M-Card) for a **Ceton InfiniTV 4 OCUR digital cable tuner** installation in a Windows 7 PC.

   In some cases you will be able to go to your local cable company to pick up a CableCARD and install it yourself; in others your cable TV service provider will send a technician to your home to install it.

   If you live in an area where Switched Digital Video (SDV) has been deployed, you will also need one or more Tuning Adapters from your cable TV provider in order to receive all digital cable TV channels.

   Before you receive a CableCARD, you can complete steps 2, 3, and 4 below in preparation for setting up Windows Media Center. This will help expedite installation if a cable TV technician comes to your home. Completion of Step 5, "Set up Windows Media Center for Cable TV" requires a cable TV connection and a CableCARD installed in the InfiniTV in order for Media Center to be setup correctly.

   Note: Due to an incompatibility between Analog NTSC channels and Media Center setup for Digital Cable TV, the Ceton InfiniTV 4 cannot be setup for use as a clear QAM tuner in Media Center without a CableCARD.
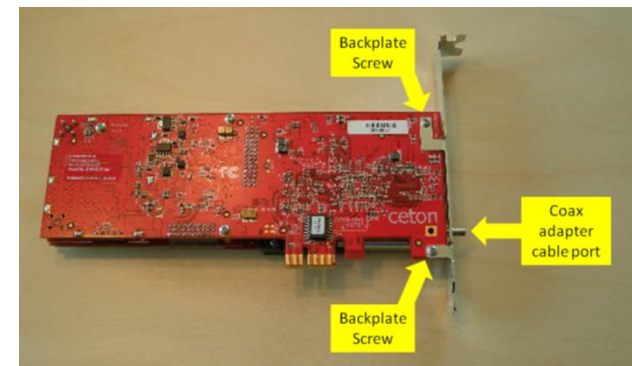
Typical CableCARD

2. Install the Ceton InfiniTV 4 Card in your PC

1. Turn your computer system off and disconnect the power cable.

2. Install the **Ceton InfiniTV 4** in any open PCIe slot. It can be PCIe x1, x4, x8 or x16.

   Note: Some PC motherboards disable onboard graphics when any PCIe card is inserted in an x16 slot.

   Your InfiniTV 4 comes with both high and low profile backplates to accommodate many PC configurations. You may need to swap backplates depending on the type of PC you are using. You can do this by unscrewing the two screws that connect the backplate to the InfiniTV 4 board, as seen next to the yellow arrows in the image to the right, and replacing the screws with the other supplied backplate.
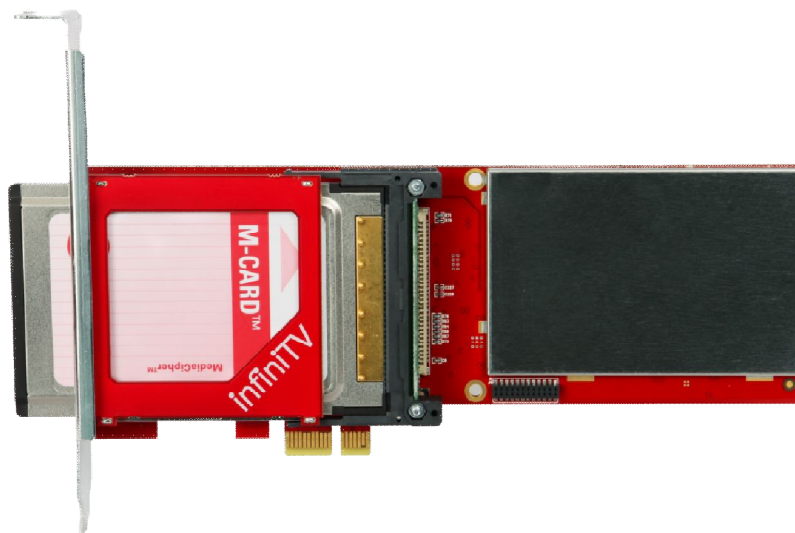
3. Attach the F-connector end of the supplied **coax adapter cable** to the cable TV outlet in your home by using a standard RG-6 coax cable. Push the other end of the coax adapter cable onto the connector on the back of the InfiniTV 4 card (see image above). Do not try to screw it on. Make sure the cable is seated all the way onto the port.
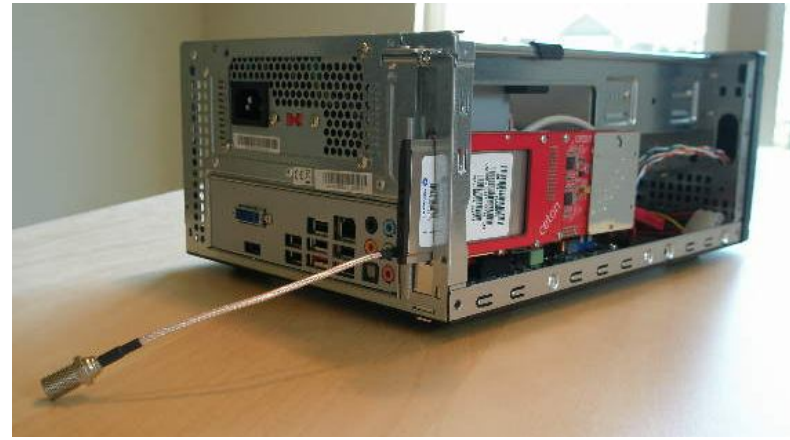
Coax Adapter Cable

4. Insert the **CableCARD** into the CableCARD slot in the back of the InfiniTV 4 card. The orientation of the CableCARD will vary depending on the connector used on your InfiniTV. The CableCARD should easily seat into the receiving connector. Do not force the CableCARD into the slot. There is a keyway in the CableCARD to prevent it from being installed backwards.
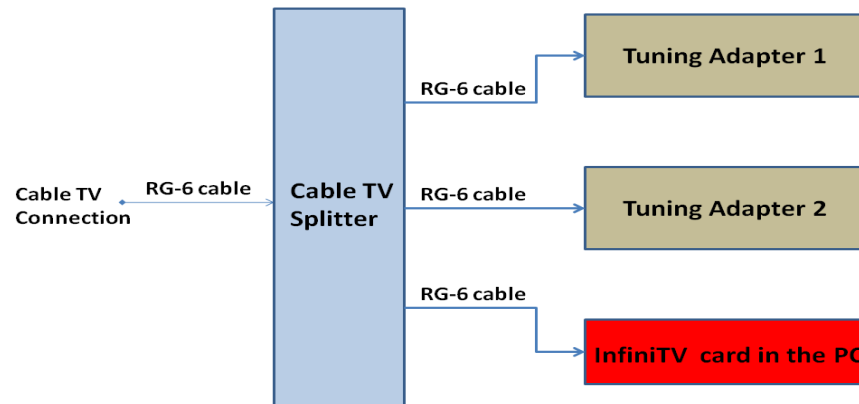

Ceton InfiniTV 4 with CableCARD Inserted

InfiniTV PCIe Card Installed in PC with Coax Adapter Cable Attached

5. Plug the power cable back into your computer and start the PC.

6. If you require a Tuning Adapter, your cable TV provider will assist you with its installation. If you already have a Tuning Adapter use a splitter from your cable provider to split the cable TV feed. Do not use the Tuning Adapter RF pass through. Some Tuning Adapters support four channels while others support only two channels. If yours supports only two channels, you will need two Tuning Adapters in order to use all four InfiniTV channels with Switched Digital Video. Wire the two Tuning Adapters in parallel as shown below. Attach a standard RG-6 coax cable from the output(s) of the splitter (two way or three way) to the InfiniTV 4 and other RG-6 coax cable(s) to the Tuning Adapter(s) RF-In. Connect the Tuning Adapter(s) to any USB port(s) on your PC with a standard USB cable(s), and plug the Tuning Adapter(s) into an electrical power outlet.

Tuning Adapter Cable Connections

3. Download and run the Ceton InfiniTV 4 Windows Installer Software

1. From Windows 7, run the **Ceton InfiniTV Windows Installer** from the following Internet link:

   www.cetoncorp.com/infinitv/support

   The Ceton Windows Installer will install the Ceton InfiniTV drivers, the SDV Tuning Adapter driver, the SDV host software, and the Ceton Diagnostic Tool on your PC. If prompted, install the **Visual C++ Runtime Libraries** as well.

2. When complete, close all Installer windows and restart your PC.

   Notes: *i. In order to receive cable TV video streams, certain network ports must be setup correctly for UDP and TCP Internet Protocols. Microsoft's Windows Firewall sets these up automatically. If you use a third party Firewall or Anti-virus program like Norton or McAfee, these programs may prevent the InfiniTV 4 from receiving digital cable TV video data correctly on your PC. You may need to disable these programs in order to receive digital cable TV. You can also manually set up the network ports from the following information:*

   Non-Windows firewall users need to open the following ports;

Name	UDP/TCP	Port Range	In/Out
RTP	*UDP*	*5001-5016*	*IN*
SSDP	*UDP*	*1900*	*IN/OUT*
RTSP	*TCP*	*554*	*OUT*
UPnP	*TCP*	*2869*	*IN/OUT*
WMDRM	*UDP*	*5757-5772*	*OUT*

   ii. If your PC is on a local area network which uses a Proxy Server, this server may prevent the InfiniTV 4 from receiving digital cable TV data. Please contact your Proxy Server support person to setup the Proxy Server to allow the InfiniTV 4 to receive digital cable TV video data.

   iii. MoCA adapter users may require a low pass filter to prevent interference with TV reception on some channels. FIOS customers should request a low pass filter at the time of installation.

4. Run Digital Cable Advisor

You must run Microsoft's **Digital Cable Advisor (DCA)** from the **Extras Gallery** in Windows Media Center. This application checks your computer to ensure it has adequate resources to support digital cable TV services and sets up Windows to allow viewing copy-protected cable TV content using Windows Media Center and a CableCARD-based digital cable tuner like the Ceton InfiniTV 4.

The Ceton Installer you ran in step 3 above initiates the download of the Extras Gallery automatically. The Extras Gallery icon should appear in **Extras** as shown below. It can take up to five minutes after running the Ceton Installer for the Extras Gallery icon to appear on screen.

Note: The Extras Gallery can also be downloaded manually from the following Internet links:
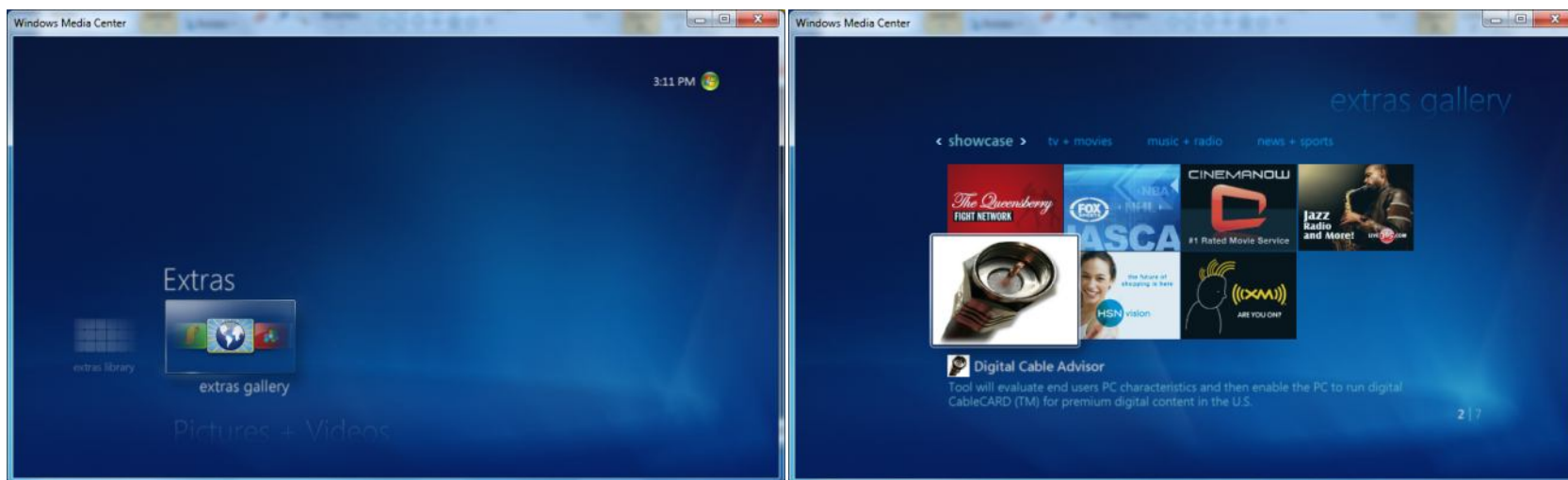
x86 - 32 bit Windows 7: http://go.microsoft.com/fwlink/?LinkId=195559

x64 - 64 bit Windows 7: http://go.microsoft.com/fwlink/?LinkId=195560

To run Digital Cable Advisor, follow these steps:

1. Start Windows Media Center from the Windows Start Menu or the green button on your Media Center PC remote.
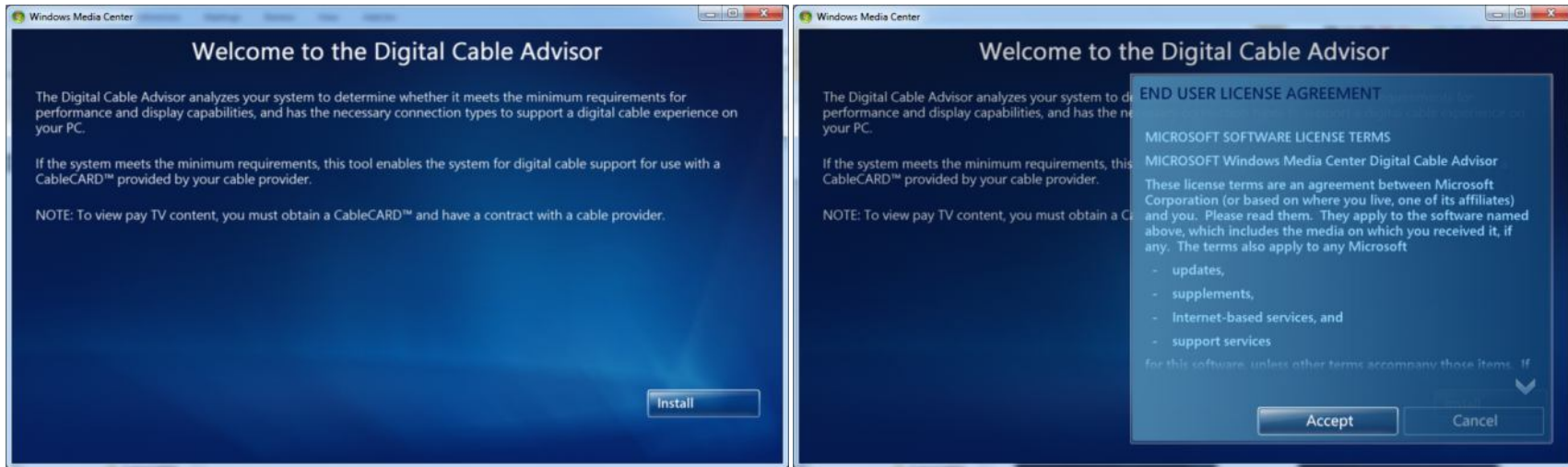
   Note: It is recommended to run the Digital Cable Advisor in a reduced size window (not Maximized) in order to view all system prompts more easily. If this is your first time running Windows Media Center you will be requested to complete a quick Media Center setup process at this point. If asked, do not setup the TV tuners until after the Digital Cable Advisor has been completed.

   Navigate to **Extras** / **Extras Gallery**. If you don't see the Extras Gallery icon it is probably still downloading from step 3 above. Wait a few minutes and check back, or manually download from the links above.
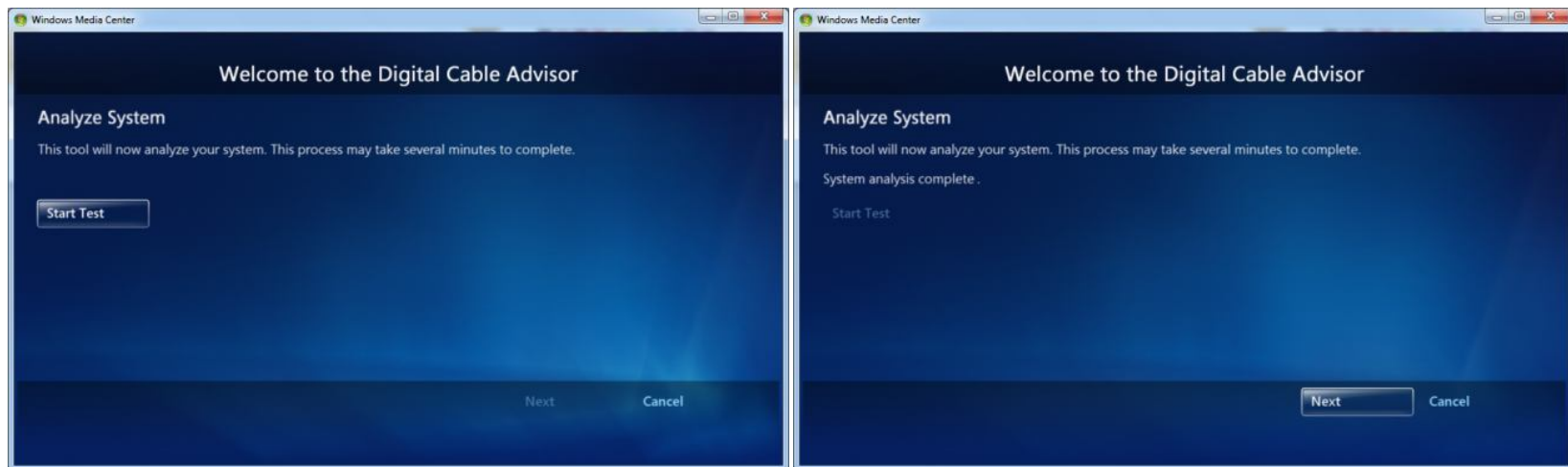

Click on the picture of the COAX cable to run the **Digital Cable Advisor**.

   o Click **Install** to download the Digital Cable Advisor and **Confirm** you want to download the file.

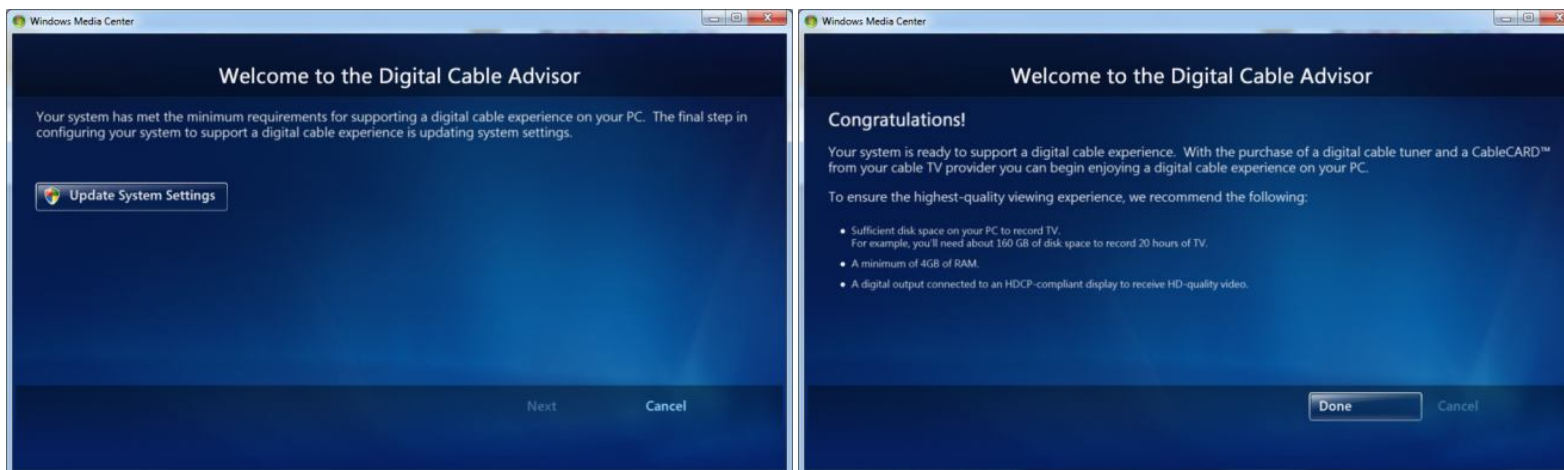   o Read the End User License Agreement and choose to Accept or Decline.

- o If you accepted the End User License Agreement, the Digital Cable Advisor will install, which can take a couple of minutes.

- o Click **Next** on the **Welcome to the Digital Cable Advisor** screen.

- o Select **I Agree** and click **Next** on the **Digital Cable Advisor Terms of Service** screen.

- o Click **Start Test** on the **Welcome to the Digital Cable Advisor / Analyze System** screen. The Digital Cable Advisor will begin testing your system which can take several minutes to complete. Your screen may flash several times as a normal part of the test.

- o Click **Next** on the **Welcome to the Digital Cable Advisor / Analyze System** screen once it says **System analysis complete**.

If the computer system meets the minimum system requirements to support digital cable TV you will be prompted to click **Update System Settings**. Be sure to allow the program to make modifications to your system from the pop-up window. (The pop-up may be flashing on your tool bar at the bottom of your screen).
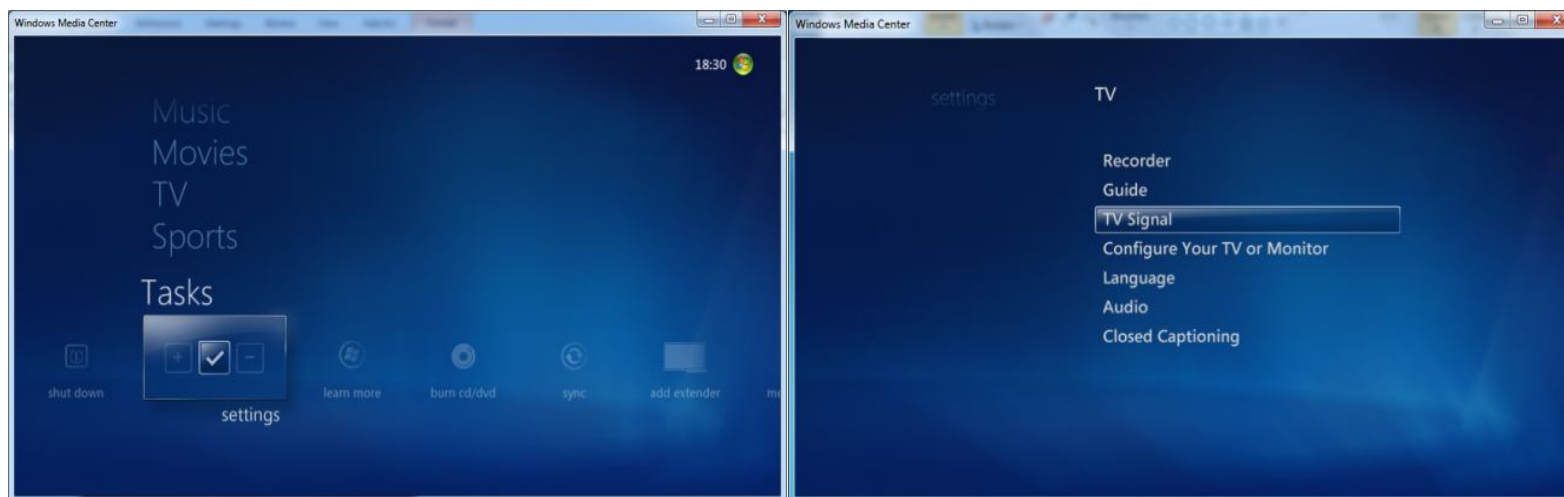
Click **Done** when you see the **Congratulations!** Screen.

Note: *If your computer fails the Digital Cable Advisor test then it does not meet the minimum system requirements needed for supporting digital cable TV on the PC and it will not be able to use any digital cable tuner including the Ceton InfiniTV 4.*

5. Setup Windows Media Center for Cable TV

Go to **Tasks** / **Settings** / **TV** / **TV Signal** / **Set Up TV Signal.**

1. Run through the standard Media Center TV signal set-up process, which will take several minutes.

   o Select your Region: e.g. United States.

   o Enter your zip code.

   o Click "I agree" with Program Guide Terms & Conditions.

   o Read the PlayReady PC Runtime End User License Agreement and choose to Accept or Decline.

   o If you accepted the End User License Agreement, PlayReady will be installed.
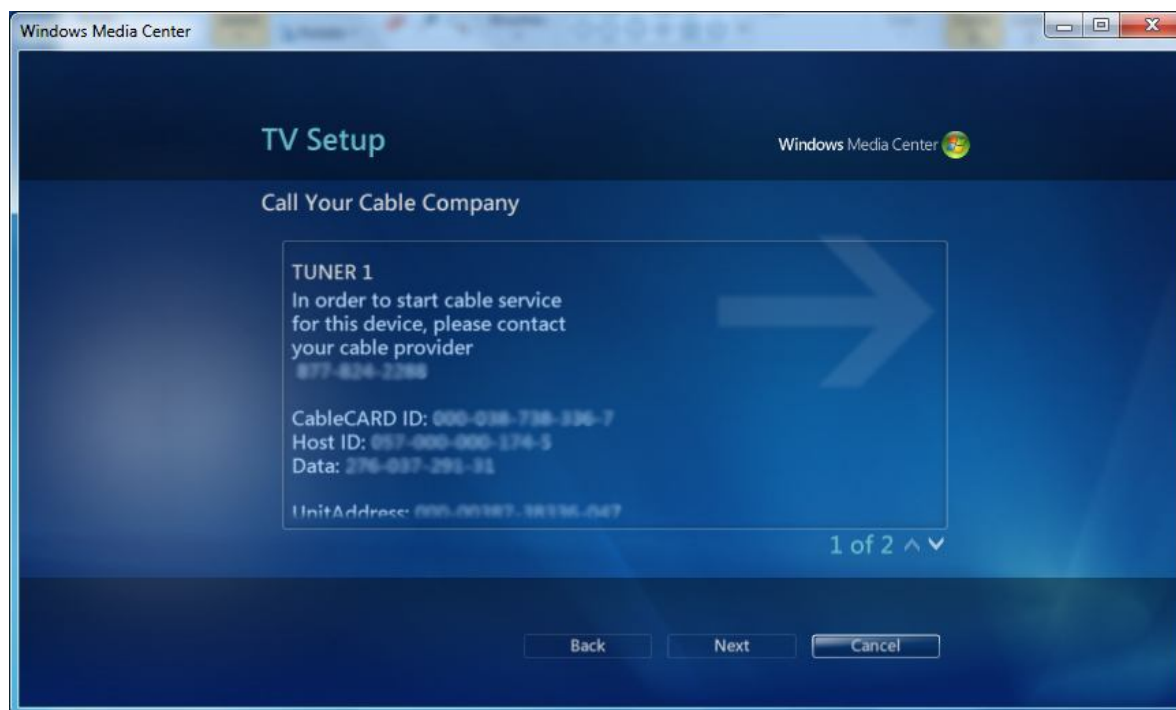
     Note: Be sure your system's date and time are set correctly. An error will occur when installing PlayReady, which will prevent cable TV from being viewed, if the date and approximate time in the PC are not correct.

   o Media Center will now Download TV Setup Data and detect the TV signal. If successful, your **TV Signal Detection Result** page should read, **Digital Cable (CableCARD™) (4 tuners)**:
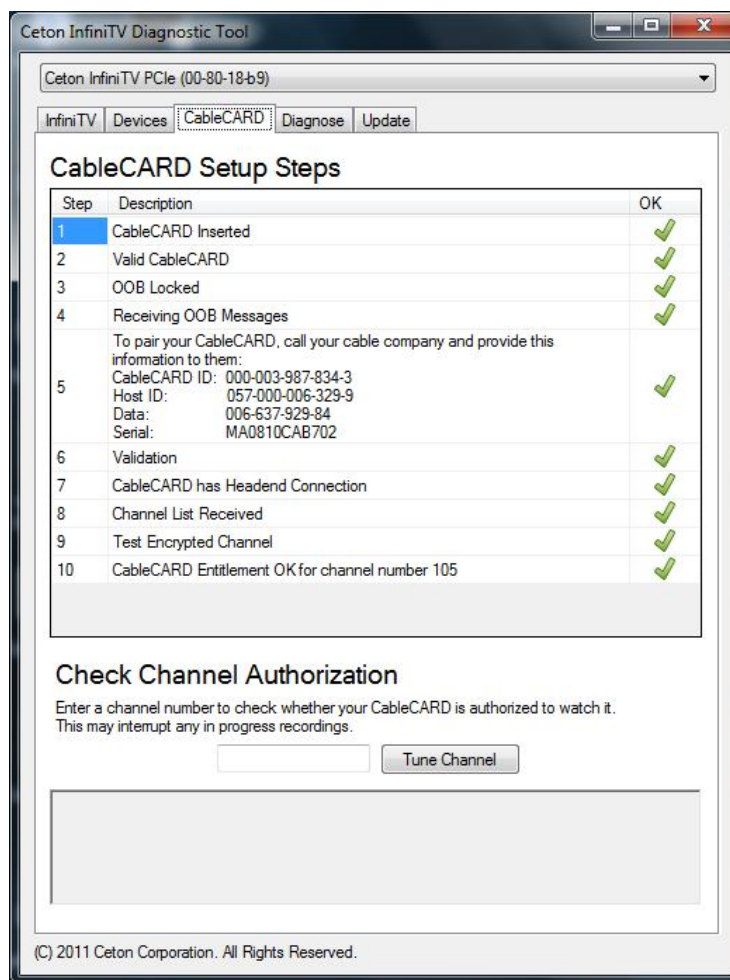
- o Select **Yes, configure TV with these results.**

- o During the configuration process, Media Center will ask for a product key, which will be pre-filled on the screen. This is a different product key than your Windows 7 product key and is automatically generated by running the Digital Cable Advisor in step above. Just click **Next** when the product key configuration is complete.

2. Activate your CableCARD. If your cable operator sent a technician to your home to install the CableCARD then the technician will assist you in performing this step. If you are installing the CableCARD yourself, click **Next** on the Activate Your CableCARD screens.

Call your cable operator when prompted (a phone number may appear on the screen) and tell them you need to **pair and activate a CableCARD with the Ceton InfiniTV 4 OCUR digital cable tuner** in your PC. Your cable operator will walk you through the process of pairing and authenticating the CableCARD with your local cable system. During this process, you will need to provide them with information from the TV Setup screen:

Ceton includes a Diagnostic Tool which provides information about the Cable CARD paring process. It can be found by going to **Start** / **All Programs** / **Ceton InfiniTV** / **Ceton InfiniTV Diagnostic.** Once the Diagnostic Tool is open, select the CableCARD tab to view the screen shown below:
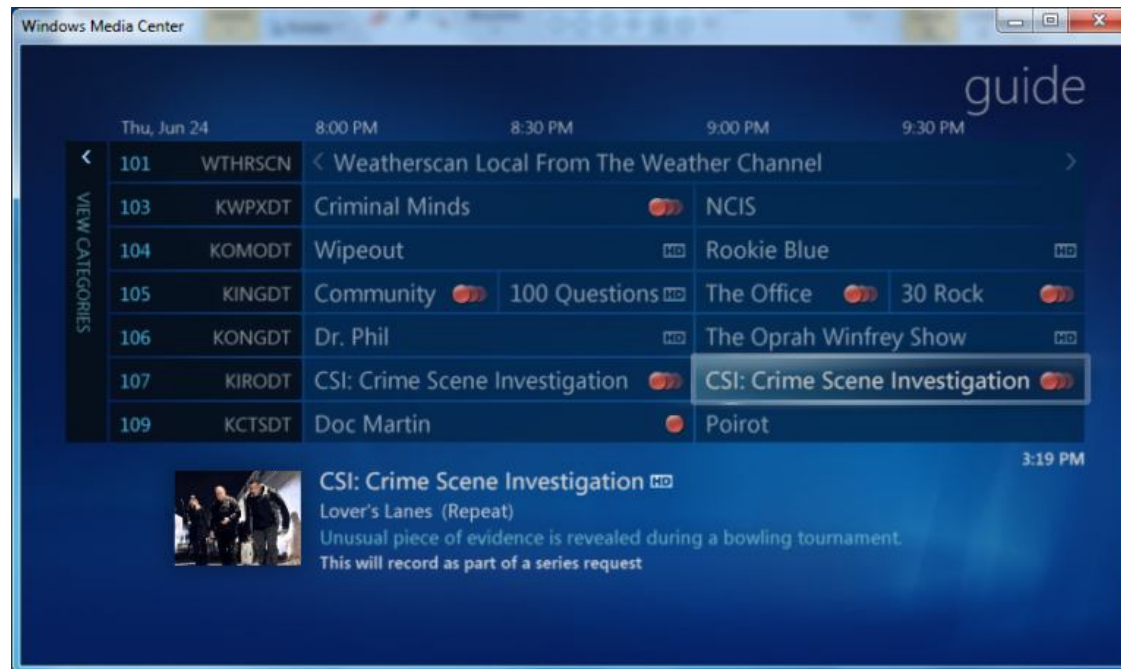

Make sure all of the CableCARD Setup Steps listed are followed by a green check. If one or more steps are followed by a red minus sign, the Diagnostic Tool will provide information on how to resolve the CableCARD issue.

Once the CableCARD activation is complete by your cable operator, Select **Next** to download the program guide data for your cable TV system.

> *Note: Cable TV channel information is not downloaded until after the CableCARD has been activated. TV Channels will not playback or be displayed properly in the guide until this information has been received, which typically takes about five minutes. You may be presented with several choices for guide data. Pick the choice which most closely matches the TV viewing situation for your area. If setup properly, the channels in Media Center should correspond correctly with those being broadcast as they would appear on a regular cable box. If the channels don't match up correctly, go back through Media Center setup again and make another choice. If the CableCARD has already been activated, just click next on these screens. Repeat this until the channels in Media Center match correctly with those being broadcast.*
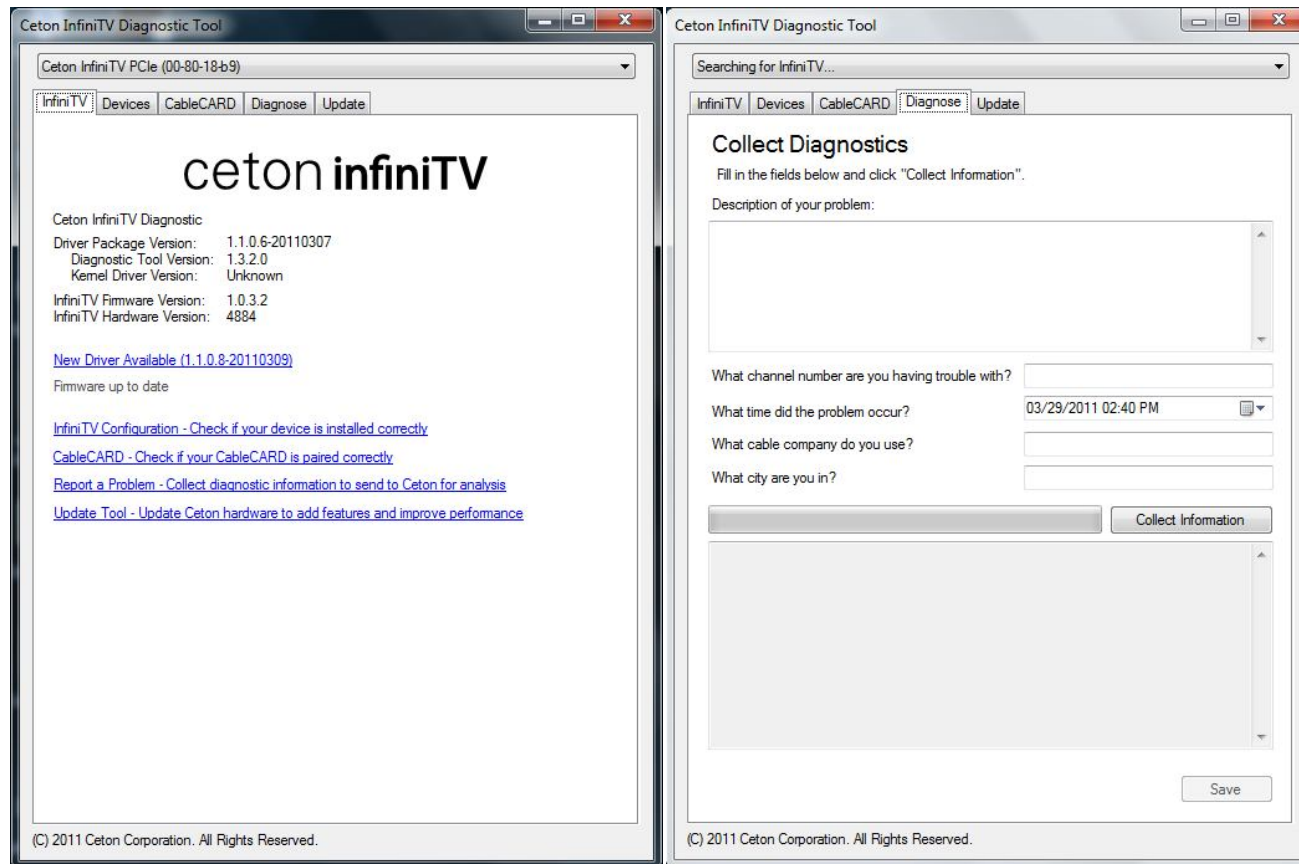
3. When you've clicked **Finished** your InfiniTV 4 tuners will be set up and configured.

   o Go to **Media Center / Live TV** and watch your favorite cable TV programs, or

   o Go to **Media Center / Guide** and record up to four channels at once!
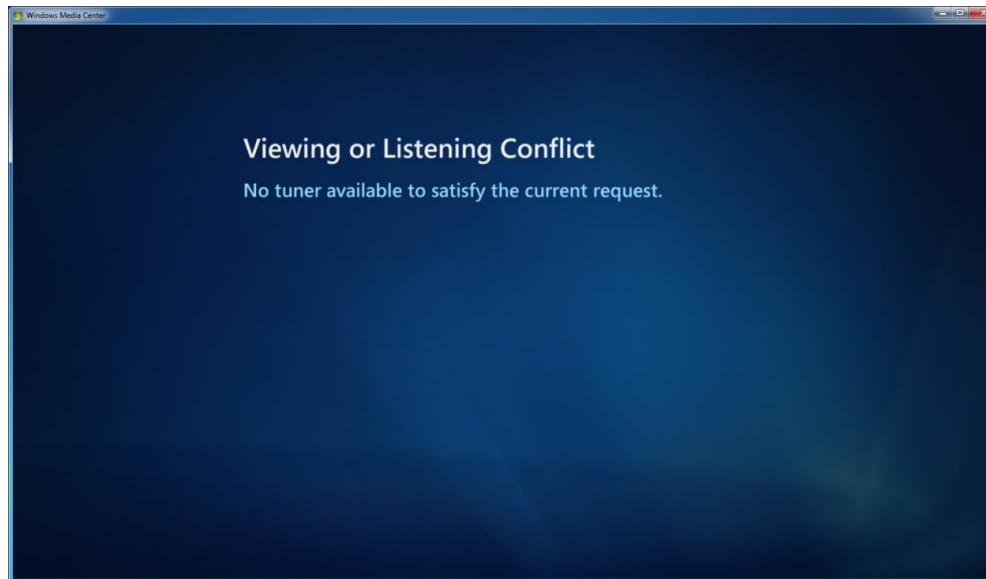
6. Ceton Support and InfiniTV Diagnostic Tools

Ceton maintains a support ticket system for customers to obtain technical support for InfiniTV products. Access to the support system can be found by going to www.cetoncorp.com/infiniTV/support and clicking on *Ceton InfiniTV Support Center.* If you have a question or require technical support, simply open a support ticket and Ceton Technical Support personnel will respond with assistance.

The Ceton InfiniTV Diagnostic Tool also provides information about system health, and the firmware, driver, and installer versions. From time to time Ceton will release new firmware, drivers and installer revisions to improve performance or add new features. The InfiniTV tab on the Diagnostic Tool will indicate your current revisions and if there is a newer version of the firmware, driver or installer available. Firmware, drivers and/or the installer can be updated automatically by clicking on the link which indicates when a newer version is available. Ceton recommends always using the latest versions and updating when a new revision is available.

The Ceton Diagnostic Tool can collect diagnostic information about your specific InfiniTV system and PC to help Ceton technicians analyze your system's behavior. Go to the Diagnose tab and enter information about an issue. Next hit the **Collect Information** button. The Diagnostic Tool will automatically generate a file containing information about the health and operation of your system. This file can be attached to a support ticket so Ceton technicians can use the information to help resolve problems.

Note: Each time your PC is turned off and turned back on again, Media Center must re-establish communication with the Ceton InfiniTV 4. This process, which takes about a minute, begins when you go to "Live TV" the first time after power up.   During this period, Media Center displays the following screen:

When communication has been established, live TV will begin normally without any further action. This screen will not be displayed again unless the PC is rebooted or there is another power cycle.