Windows CE – Remote Control (Efon VNC)

Posted on July 16, 2012 by jseditor

The open source project EfonVNC (http:/efonvnc.sourceforge.net/) provides an VNC server for Windows CE. This server could easily utilized for remote control of a Windows CE based system and the best on this solution is, that it will run on a lot of flavors of Windows CE (CE.net, CE 5.0, CE 6.0) and if not, it is available in source.

So, this article will give a brief summary on how to setup the server system on the CE side and the connection to the PC.

Installation on CE

1. Download the latest precompiled binary of the EfonVNC server from the *Sourceforge* download page (http://sourceforge.net/projects/efonvnc/files/efonvnc/). There are currently three version available for the ARMv4i, x86 and MIPS platform.
2. After downloading the zip file (e.g. efonvnc_v4.3_wce5x_armv4i.zip for an ARM target) extract the exe files *vncconfig.exe* and *winvnc.exe*.
3. Copy the files
   vncconfig.exe
   winvnc.exe
   on the CE target system
4. Start the *vncconfig.exe* application an provide a password (-> "Configuration" button). The password will also be requested, when closing the *vncconfig.exe* (bug?).

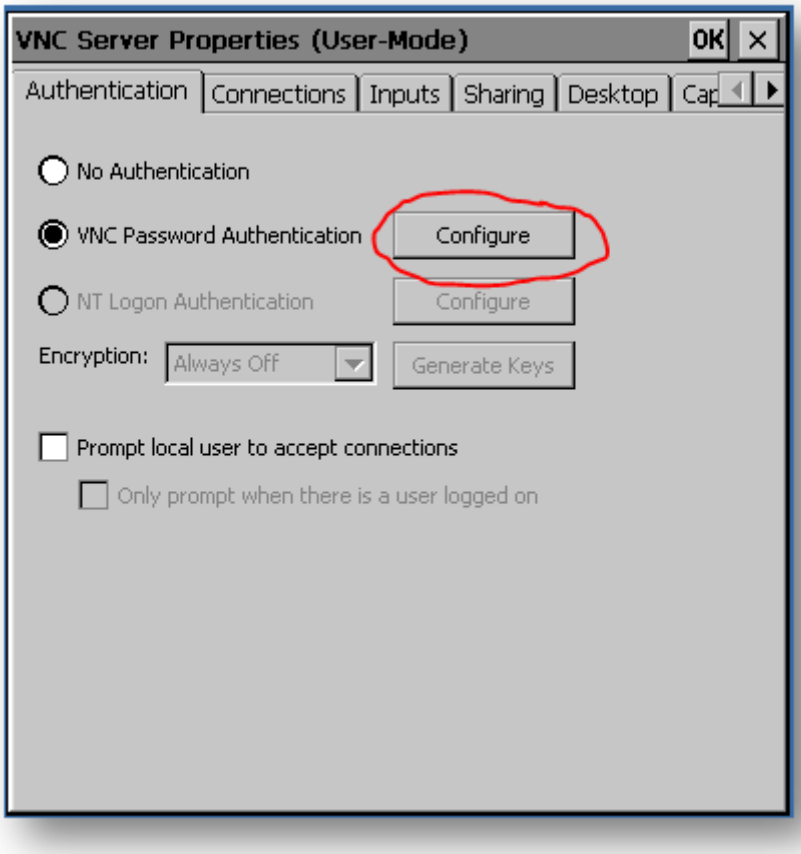

Figure 1 – VNC Password Configuration

1. Start winvnc.exe to run the VNC server

Getting the IP address of the Windows CE system

- Connect the CE System to the network via Ethernet, WLAN, ActiveSync and the system may get the IP address automatically from a DHCP server of your network (if Windows CE is configured to do so).
  Alternatively, the Windows CE network connection must be setup with an IP address manually.
- If your Windows CE system is equipped with an display, you could probably click on the network symbol in the task tray (on the left side of the clock) and read the IP number from the network information dialog.
  In case of missing the network symbol, you could also start this from System Settings or simply run the command shell of Windows CE (run cmd.exe). There type in the command '*ipconfig*" and the software should print out the current network connection information.

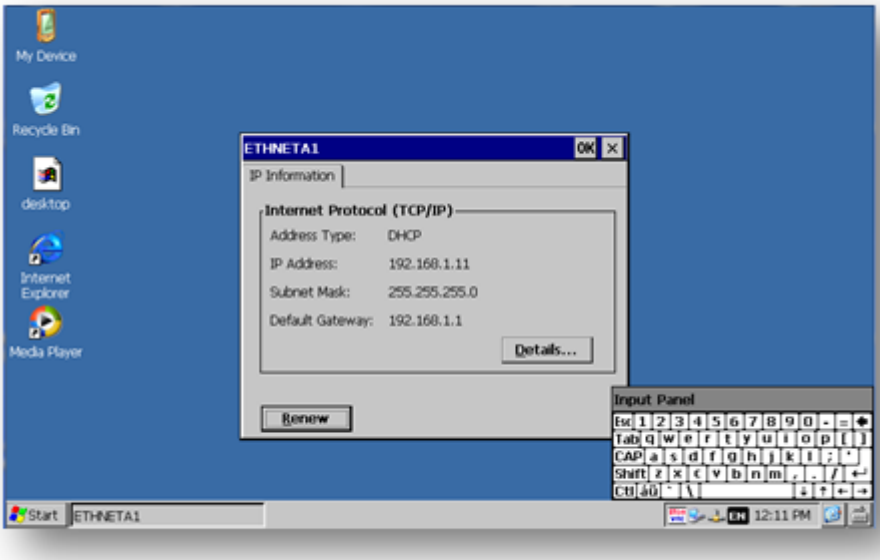

Figure 2 – IP Information

Setting up the PC

1. Install or start a VNC client application.
   Basically, it should be possible to use any VNC client application. To name but a few:

   - UltraVNC (http://www.uvnc.com/)
     -> *UltraVNC_x.x.x.x.x_Setup.exe*
     -> Requires installation through the setup.exe.
   - VNC® Viewer from (http://www.realvnc.com/download/viewer/)
     -> Runs directly from the exe (*vnc-4_1_3-x86_win32_viewer.exe*) w/o installation effort and available for plenty of platforms (Windows, OSX, Linux, Solaris, ..).
     -> Probably, the free version (for personal use) would do the job for connecting to the CE system.

1. Connect the CE System to the 'reachable' (local) network (via Ethernet, WLAN, ActiveSync) and use the IP address of the CE System plus the previously set password to connect. How this has to be setup depends on the chosen VNC application.

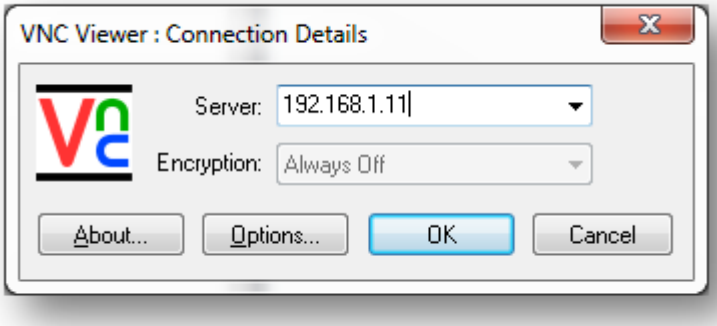

Figure 3 – Server Connection Setup

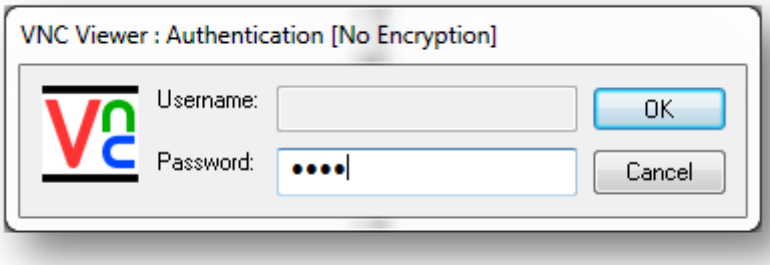

Figure 4 – Login Information

1. If it succeeded, you will get an 'online' view of the CE system screen

Automatically start the EfonVNC after boot

Unfortunately (or luckily; depends on intent), the EfonVNC software will not start automatically after reboot of the CE system. To achieve this, it is necessary to create a 'Launch' entry in the system Registry. (There may exist also other ways on your system to autorun a exe, but I prefer the following way)
(See MSDN Article: How to Configure the Registry to Run an Application at Startup)

Create a new string entry in the '*HKLM\init*' and name it '*LaunchXX*' where XX represents the number for the order of startup e.g. '*Launch110*'. The value of the string is the path and name of the file to start (e.g. "*\MyFlash\CERemoteTool\winvnc.exe*").
A '*DependsXX*' entry allows to create dependencies for the application.

Example:

```
Launch110 \MyFlash\CERemoteTool\winvnc.exe
```

=> Starts winvnc.exe on the system and all "Launches" < 110 will be started before e.g. explorer.exe.

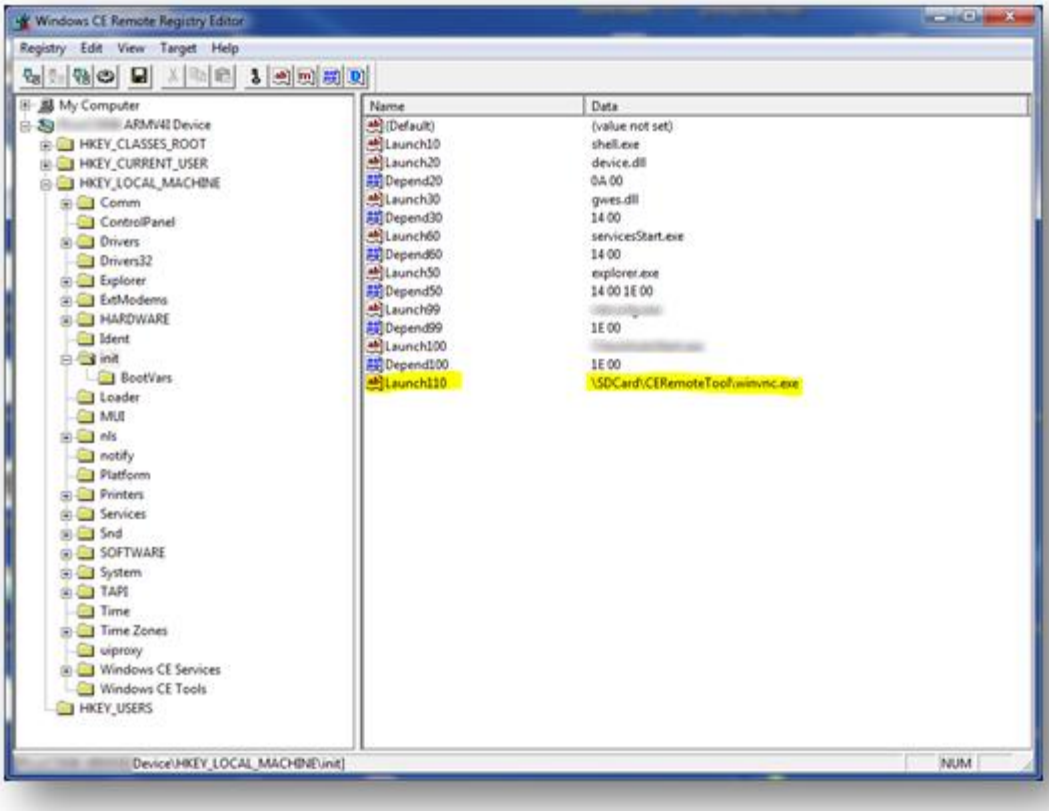

Figure 5- Auto Run Registry Setup

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