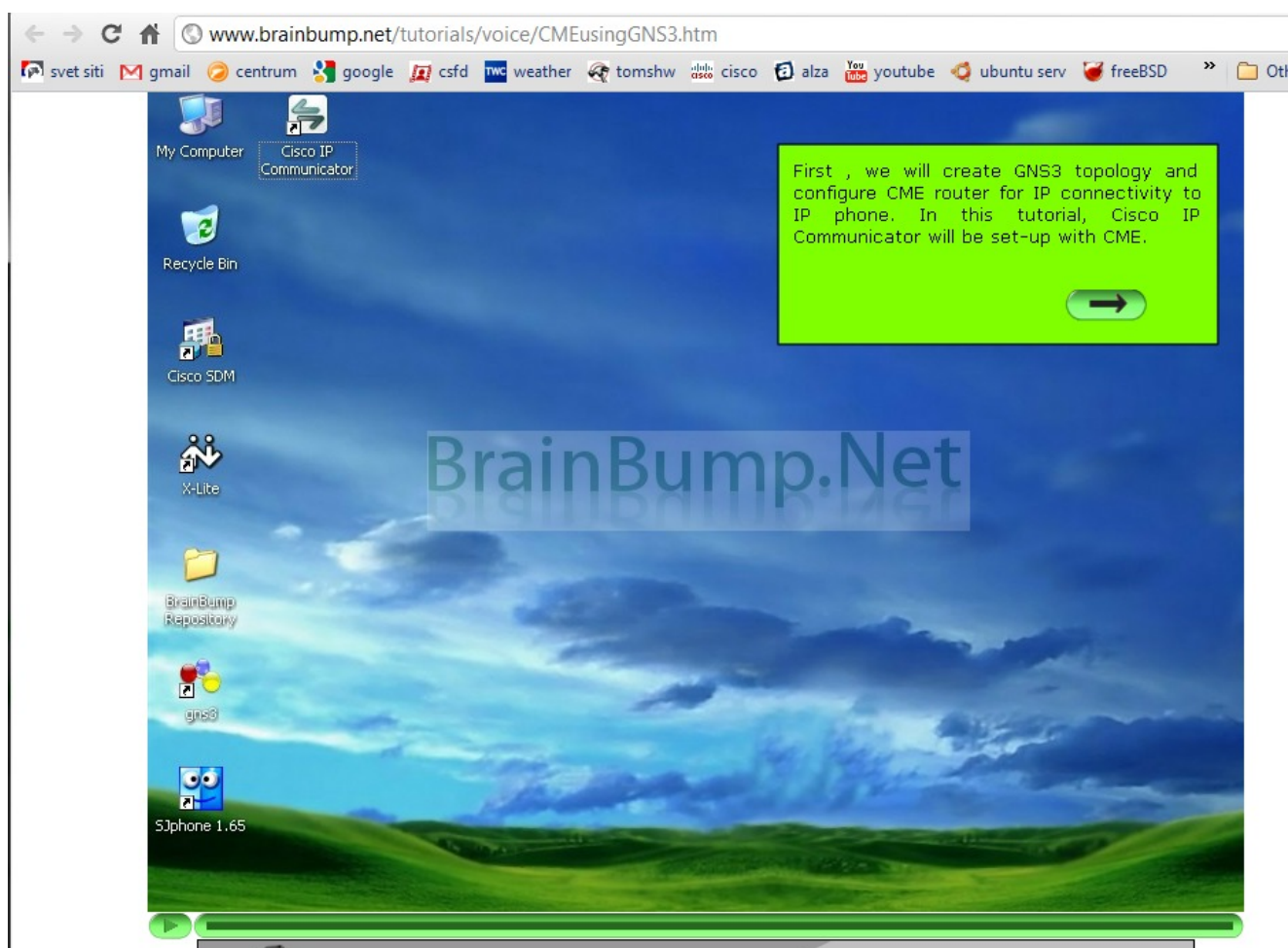


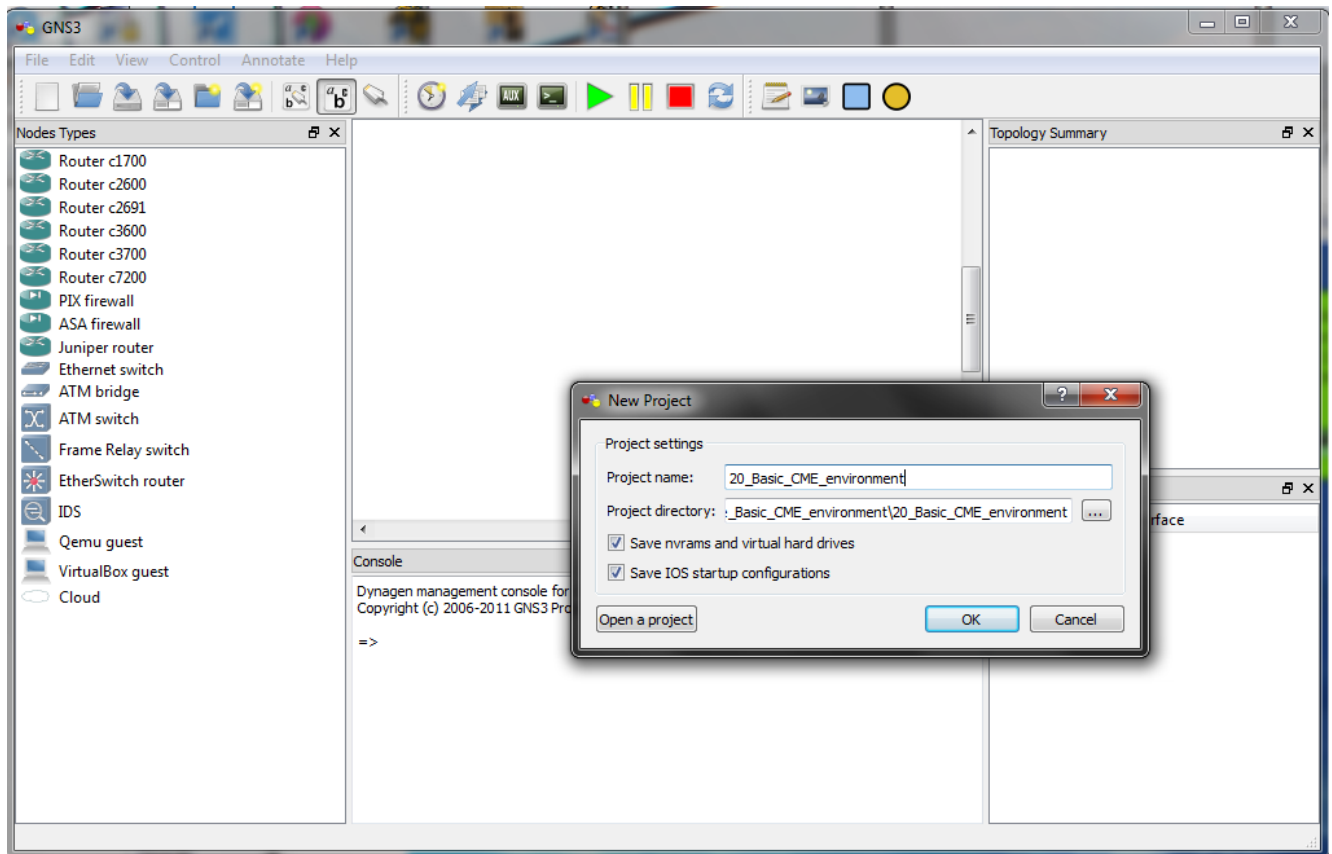
0 Preparation of basic VoIP environment with CME

Baseline for our first training environment created with support of GNS3 is www.brainbump.net/tutorials/voice/CMEusingGNS3.htm. Testing environment will use cloud component mentioned in earlier topics for interconnection virtual and real pc environment. Me home network use 172.16.0.0/24 private addressing scheme. For training pc where will run also software IP communicator use static assigned 172.16.0.10/24 IP. CME routers fa0/0 interface use 172.16.0.20/24 IP and for future use is planed 172.16.0.15/24 (second sw IP communicator – functionally equal to cisco 7970 ephone) on VMware environment.

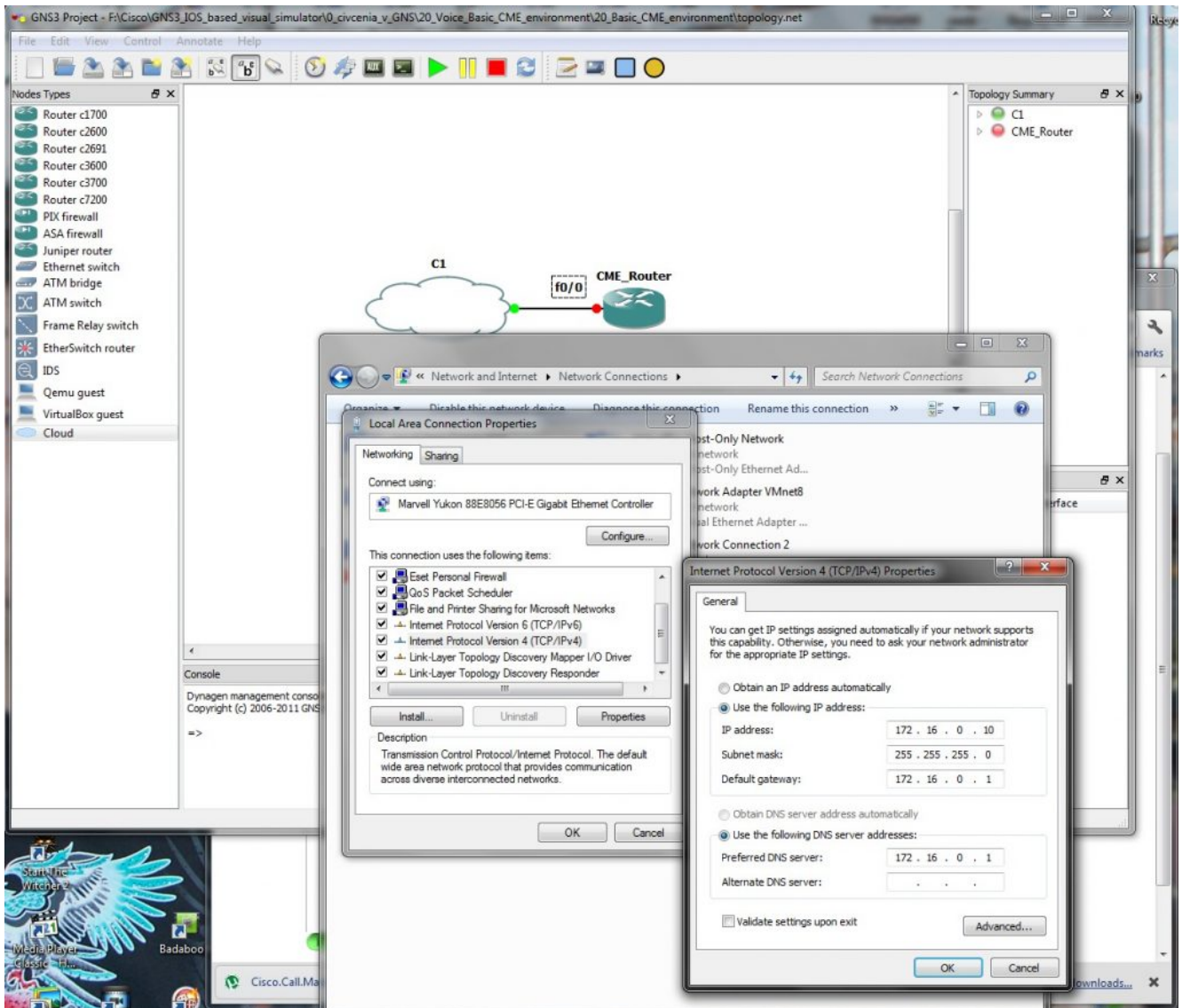


Our project settings show next picture – for smoother transfer

of configs check to save configs and nvrams.



Configuration of hosting (real) computer local stack is



GNS3 training environment is prepared and if you will you can add some eyecandy

GNS3 Project - F:\Cisco\GNS3_IOS_based_visual_simulator\0_civencia_v_GNS\20_Voice_Basic_CME_environment\20_Basic_CME_environment\topology.net

File Edit View Control Annotate Help

Nodes Types

- Router c1700
- Router c2600
- Router c2691
- Router c3600
- Router c3700
- Router c7200
- PIX firewall
- ASA firewall
- Juniper router
- Ethernet switch
- ATM bridge
- ATM switch
- Frame Relay switch
- EtherSwitch router
- IDS
- Qemu guest
- VirtualBox guest
- Cloud

Basic CME environment for IP phony training

```

Dynamips(1): CME_Router, Console port
user-locale      Define ephone user locale
video            Configure video parameters
voicemail        Set the voicemail access number called when the
                  MESSAGES IP phone button is pressed
web              define username for admin user
xml              Config XML access

Router(config-telephony)#exi
Router(config)#interface fa0/0
Router(config-if)#ip add 172.16.0.20 255.255.255.0
Router(config-if)#no shut
Router(config-if)#
*Sep 15 10:12:40.671: %LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to up
*Sep 15 10:12:41.671: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
Router(config)#exi
Router#
*Sep 15 10:12:45.307: %SYS-5-CONFIG_I: Configured from console by console
Router#copy r s
Destination filename [startup-config]?
Building configuration...
[OK]
Router#

```

For our first test we can use simple way how to setup telephony-service on router (but only for quick setup, this way is not so flexible as finetunning of all parameters of telephony-service).

```
Dynamips(1): CME_Router, Console port

Router(config)#tele
Router(config)#telephony-service setup
Warning: <telephony-service setup> command has been deprecated.
For installation help, please check CME System Administrator Guide.
--- Cisco IOS Telephony Services already configured. ---

- Please do "no telephony-service" to cleanup & run Setup again -

Router(config)#no te
Router(config)#no tele
Router(config)#no telephony-service
Skinny Deleted entries for 0 phones

Router(config)#tele
Router(config)#telephony-service setup
Warning: <telephony-service setup> command has been deprecated.
For installation help, please check CME System Administrator Guide.

--- Cisco IOS Telephony Services Setup ---

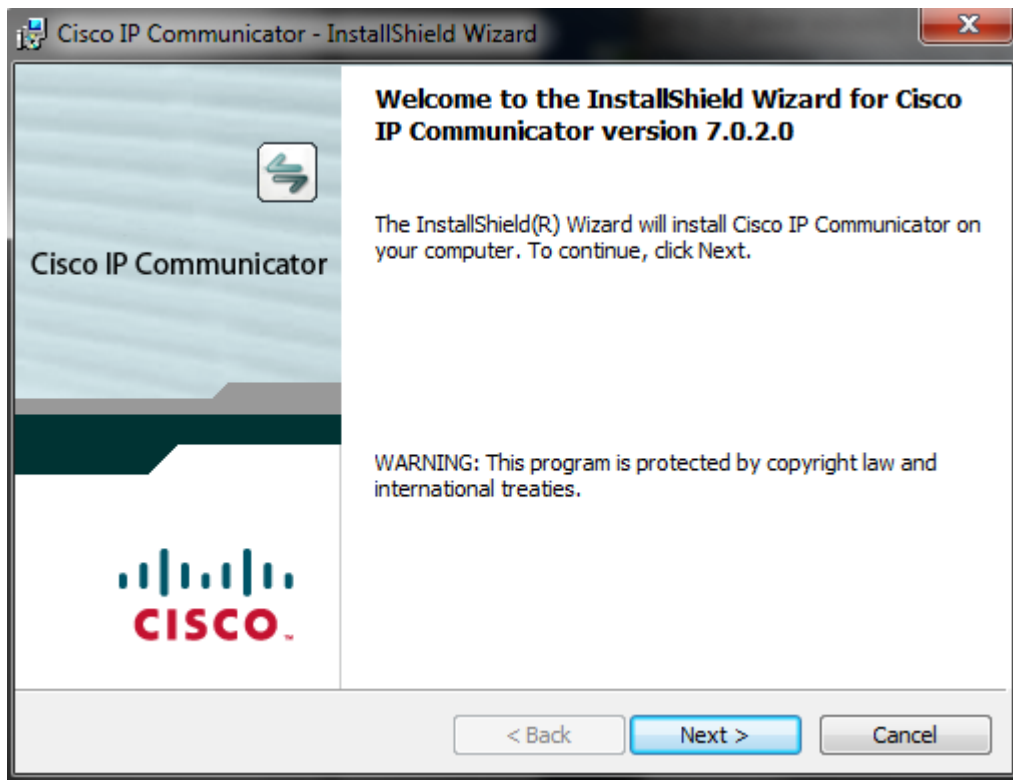
Do you want to setup DHCP service for your IP Phones? [yes/no]: 20
% Please answer 'yes' or 'no'.

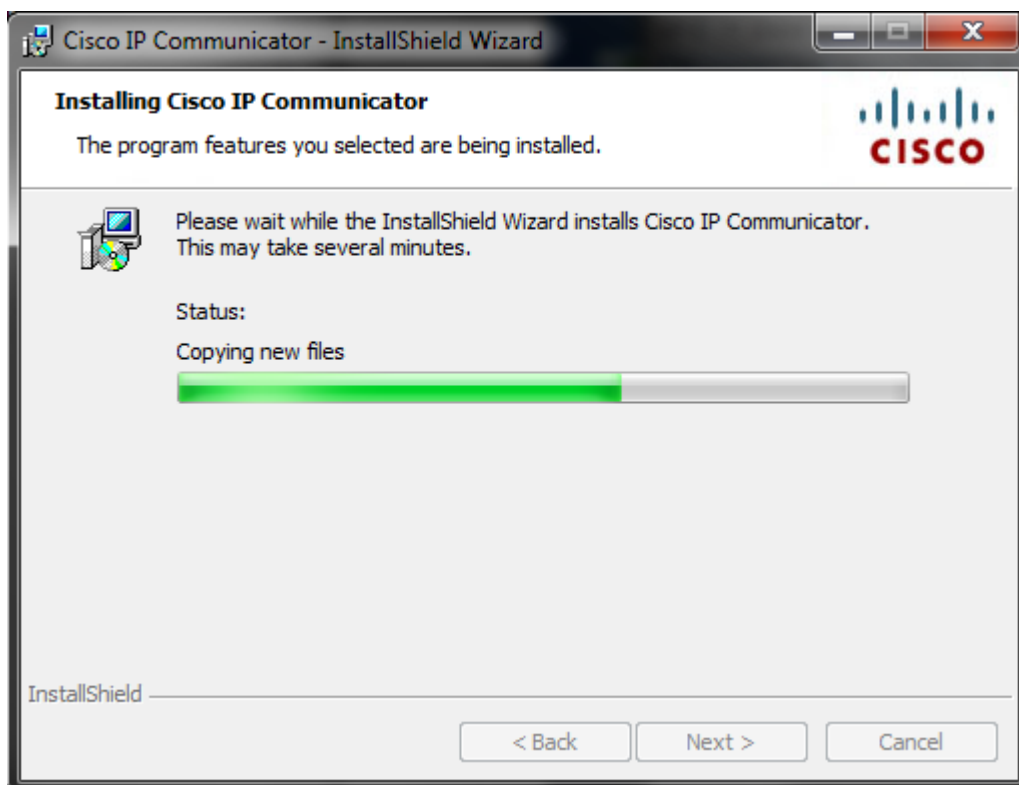
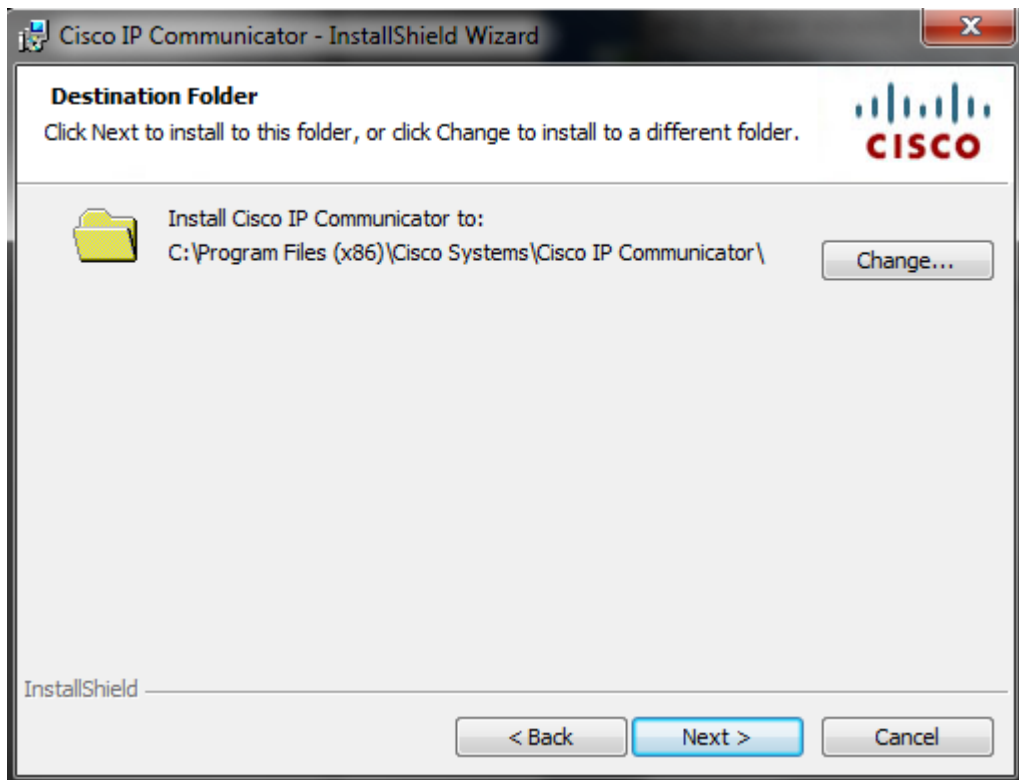
Do you want to setup DHCP service for your IP Phones? [yes/no]: no

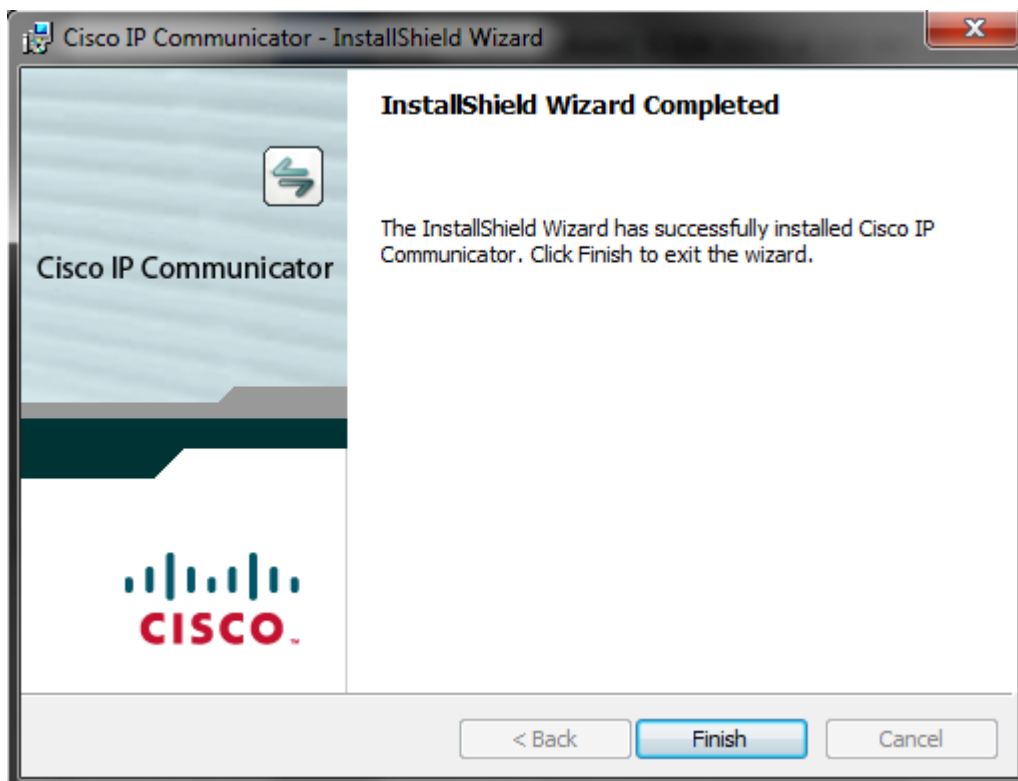
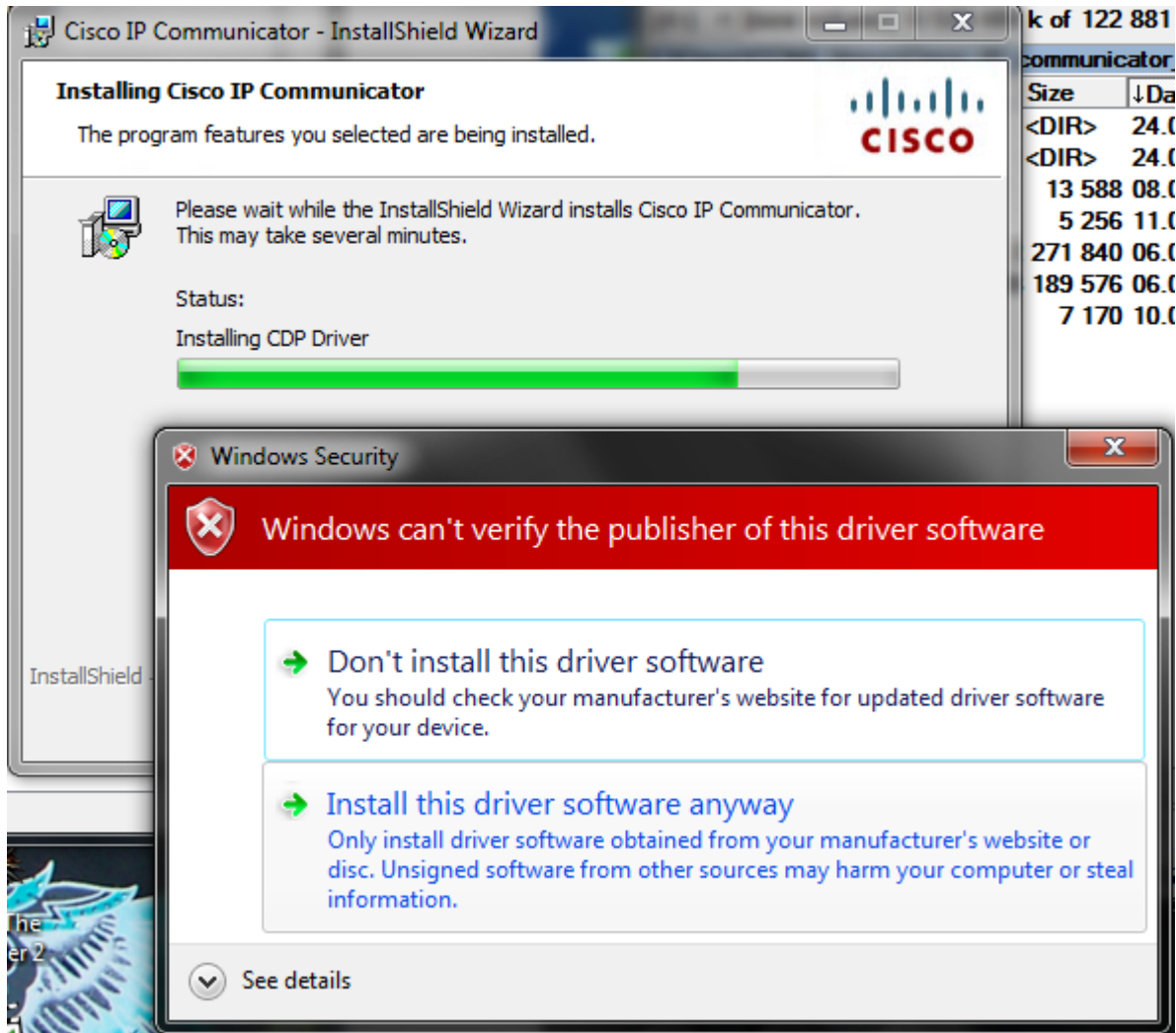
Do you want to start telephony-service setup? [yes/no]: yes
Configuring Cisco IOS Telephony Services :

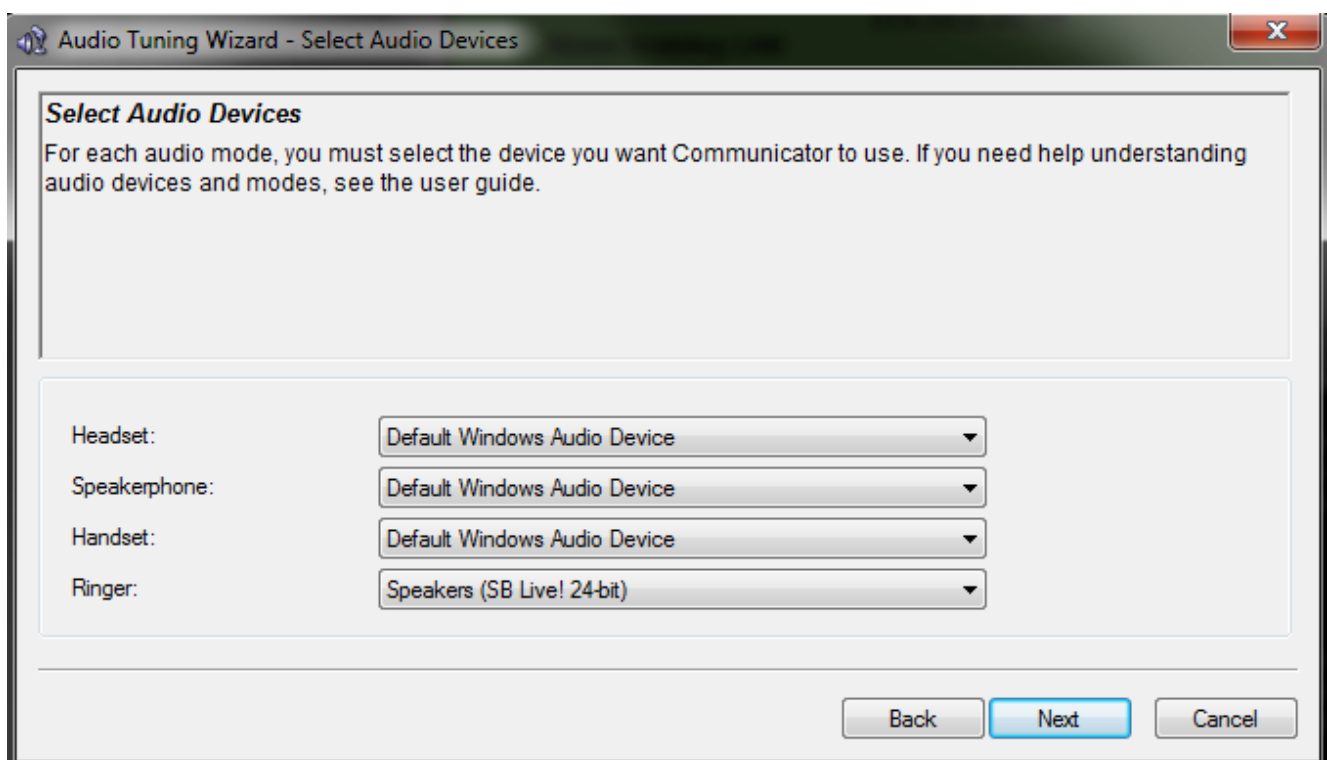
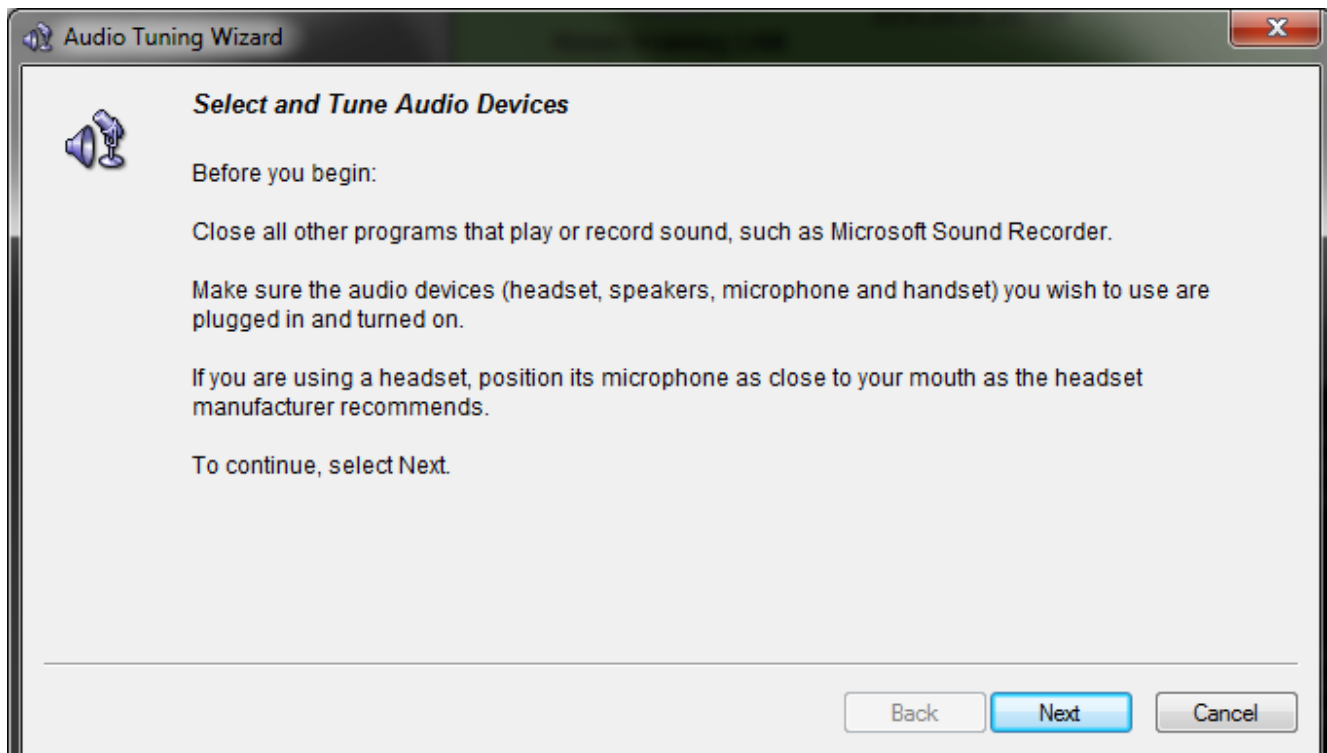
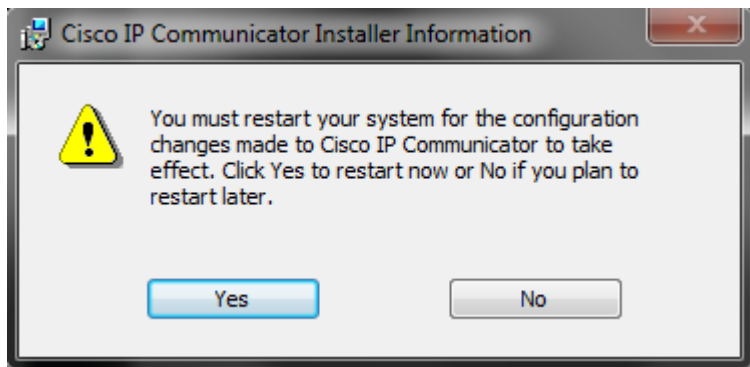
Enter the IP source address for Cisco IOS Telephony Services :172.16.0.20
Enter the Skinny Port for Cisco IOS Telephony Services : [2000]:
How many IP phones do you want to configure : [0]: 2
Do you want dual-line extensions assigned to phones? [yes/no]: no
What Language do you want on IP phones :
  0 English
  1 French
  2 German
  3 Russian
  4 Spanish
  5 Italian
  6 Dutch
  7 Norwegian
  8 Portuguese
```

We also need sw ephone, installation is







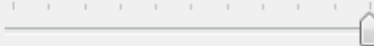


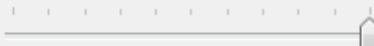
Audio Tuning Wizard - Adjust the Listening Volume for 'Speakers (SB Live! 24-bit)'

Adjust the Listening Volume

Make sure you are listening to the playback device below. If your device has external volume controls, increase them to their maximum values before tuning. Press the **Play** button and then adjust the Volume sliders until the sample sounds are being played at a comfortable level. If you see both a Master and a Wave slider, try setting the Wave slider at 75% and then adjusting the Master slider to a comfortable level.

Playback device: Speakers (SB Live! 24-bit)

Wave volume: 

Master volume: 


Play

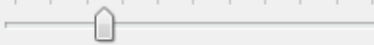
Back **Next** **Cancel**

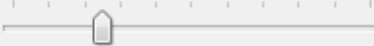
Audio Tuning Wizard - Adjust the Microphone Volume for 'Microphone (High Definition Aud...'

Adjust the Microphone Volume

Make sure you are speaking into the recording device listed below. Press the **Test** button and read this message at the typical volume at which you would speak while on a phone call. Adjust the volume sliders until the level meter peaks at the highest yellow segment. If you see both a Master and a Fine slider, set the Master slider at 75% and then adjust the Fine slider to a comfortable level. If the level meter does not peak above the green segments even when the volume sliders are set to their highest levels, enable **Microphone Boost** if available.

Recording device: Microphone (High Definition Aud... 

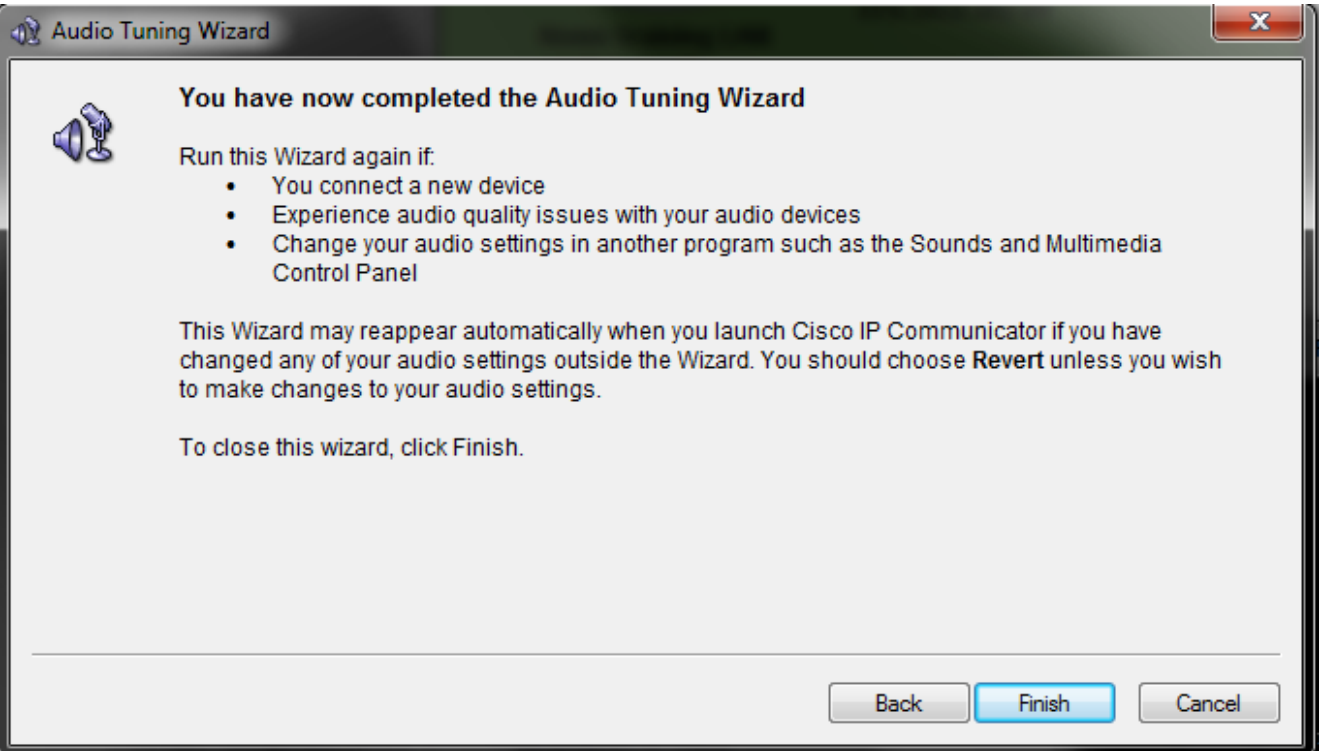
Fine volume: 

Master volume: 

☒ **Playout**

Test

Back **Next** **Cancel**



Cisco IP Communicator



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Encryption Import, Use, and Supply Advisory information is available
in the Help menu under "About Cisco IP Communicator."

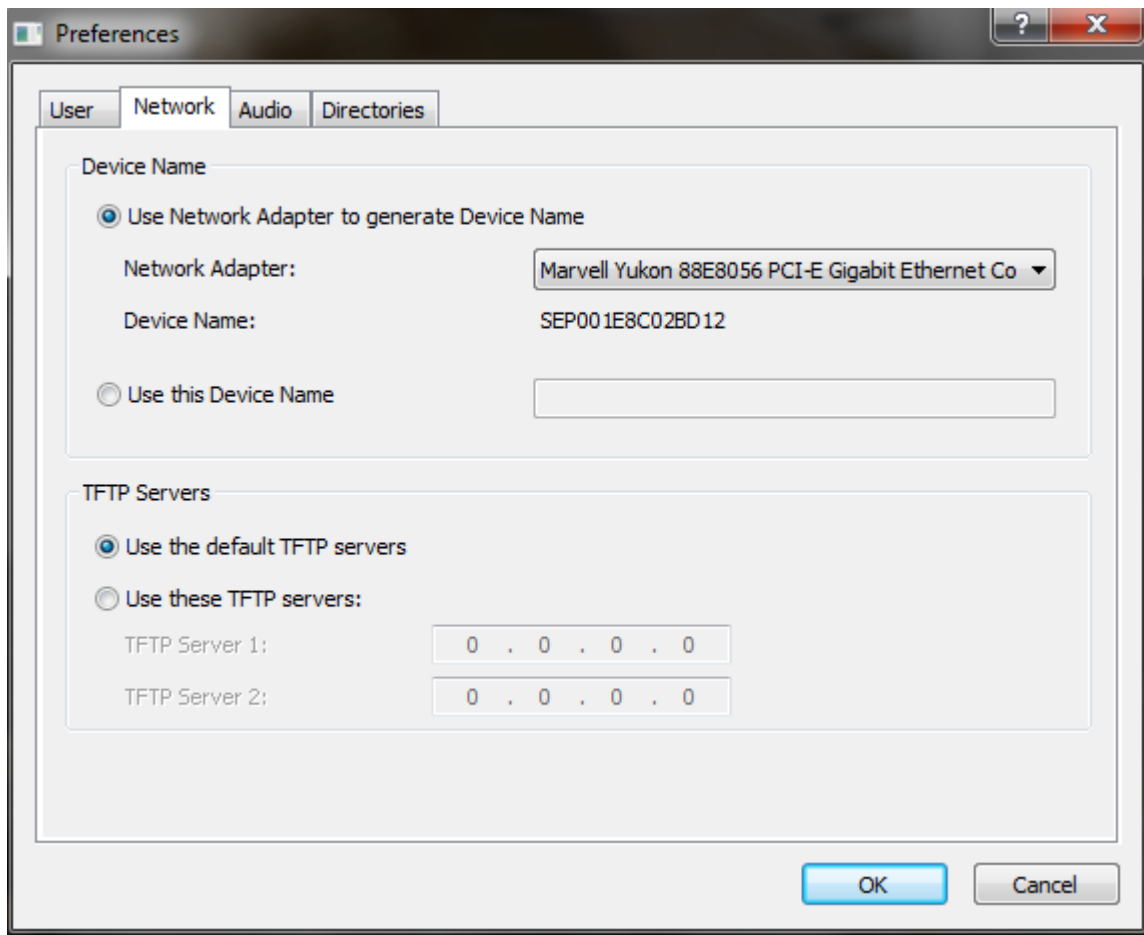
Version 7.0



Communicator - Exception Error

Please select a network interface to register with Cisco CallManager. A default has been chosen for you.

OK



When all is prepared for first test, our ephone will be able to register with CME router acting like a voice gateway. Auto registration was enabled during telephony-service setup for us automatic.

Next picture show you closer look at registering ephone and at screen with button 1 assigned ephone-dn with number 555 (but configuration ephone-dn, ephone-s, buttons and all things associated with VoIP in branch LAN and next with configuration of voice gateways and call legs you can expect in next articles on our web).



