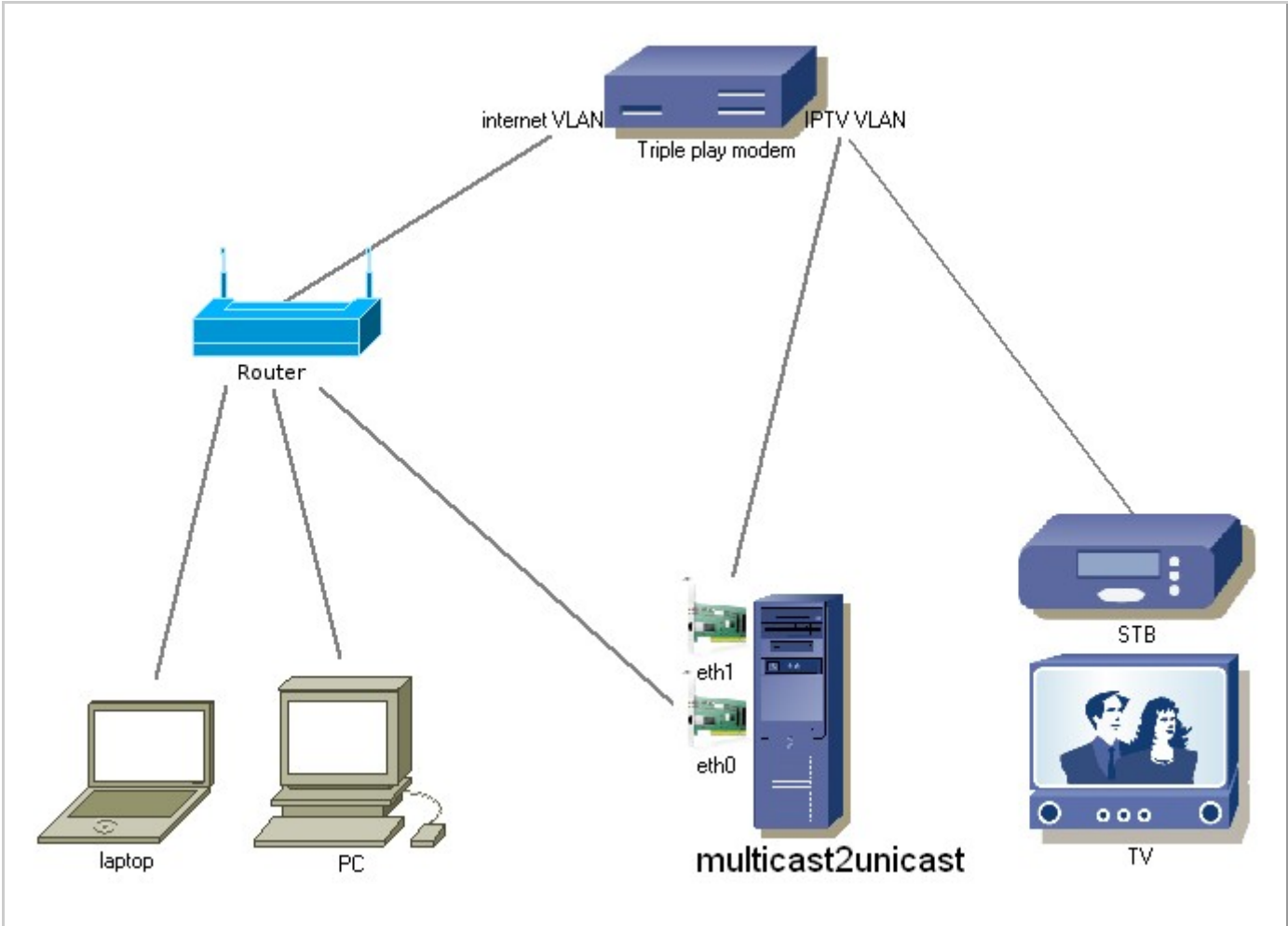


Multicast2unicast with DLNA server

Scenario:



If your IPTV provider separates multicast traffic on a gateway device, then you need some kind of a proxy to get IPTV traffic inside your LAN. Most elegant way to solve this problem is usage of a router with custom OpenWrt, Dd-Wrt or similar firmwares. If you are unfamiliar with custom firmwares, you can also use a low power consumption Windows PC and multicast2unicast program. This program converts UDP multicast traffic into a http unicast. It also features DLNA server, so you can browse m3u playlists on your DLNA devices.

1.a

Run multicast2unicast.exe with no parameters to get help and then set appropriate parameters.

```
Command Prompt
E:\Programiranje\Moji projekti\Multicasttv-DLNA\Debug>multicast2unicast

+-----+
!M!u!l!t!i!c!a!s!t!2!U!n!i!c!a!s!t!
+-----+

You must provide at least 4 arguments:
-li [ listening interface for Http/Upnp server ],
-lp [ listening port for Http/Upnp server ],
-ri [ UDP receiving interface ],

Optional arguments:
-p [ m3u playlist ],
--without-dlna,
--playlist-protocol-info [default: video/mpeg:*]
--recv-timeout *
* How long should server wait for IPTV signal after request was issued. User interfaces of some DLNA clients may stop responding if DLNA server doesn't send any data. This can happen if playlist has some outdated multicast ip addresses and client wants to create thumbnails for whole directory. If your DLNA client is unresponsive, lower this value. If value is too low, server may close connection before it receives any data.

URL in a playlist must be in format :
udp://@multicast.address:port e.g. udp://239.255.0.1:5002
Interface for Http/Upnp server and Udp receiver can be the same.
Http/Upnp server can only listen on one interface.

Example:
multicast2unicast.exe --with-dlna -li 192.168.0.2 -lp 2901 -ri 10.10.0.20 -p "C:\Playlists\playlist.m3u"

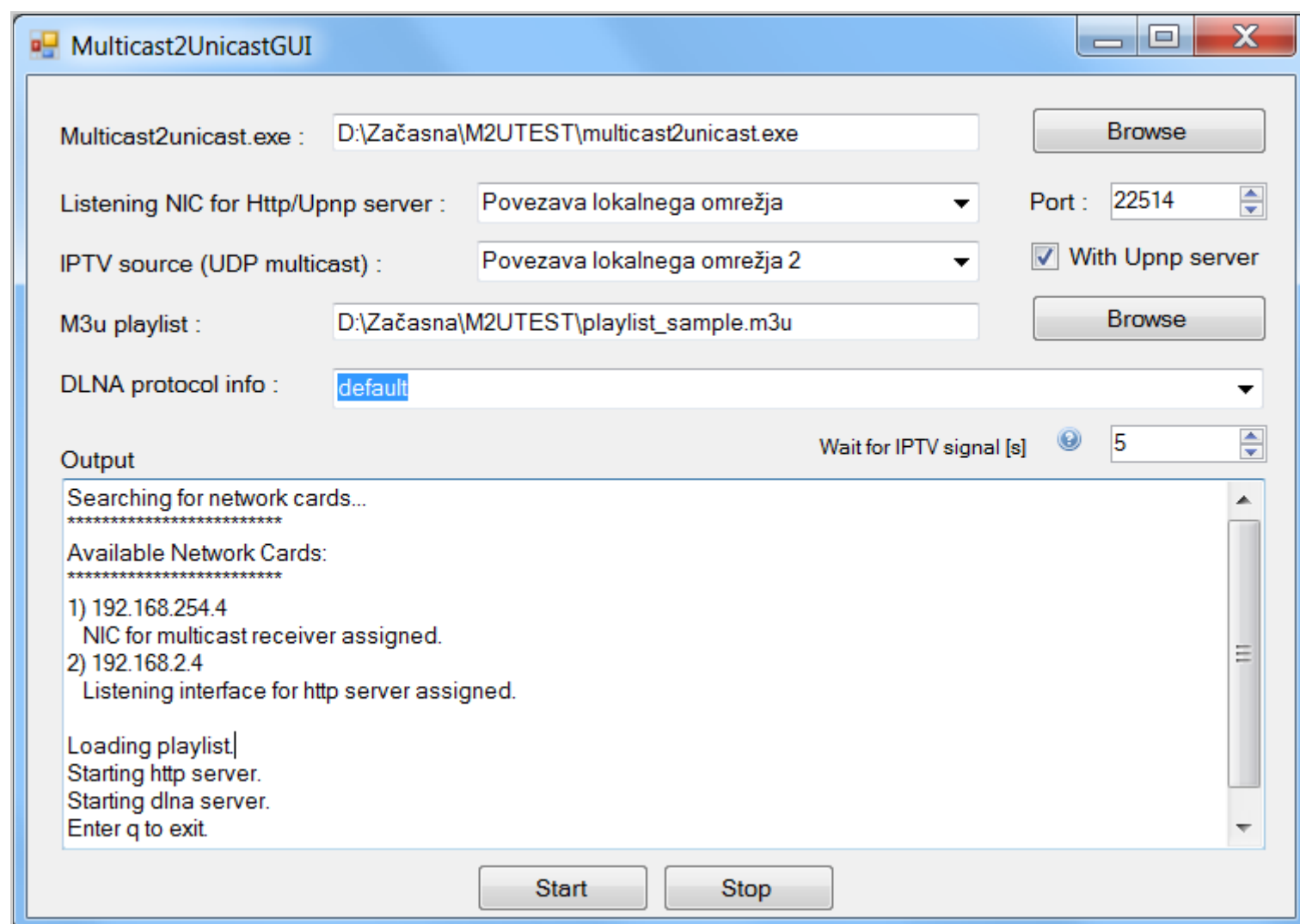
*****
Available Network Cards:
*****
1) 192.168.2.80

E:\Programiranje\Moji projekti\Multicasttv-DLNA\Debug>
```

Console application has also „udp multicast to udp unicast“ feature that can't be accessed via GUI. Use this feature only if you know what are you doing.

1.b(prefered method)

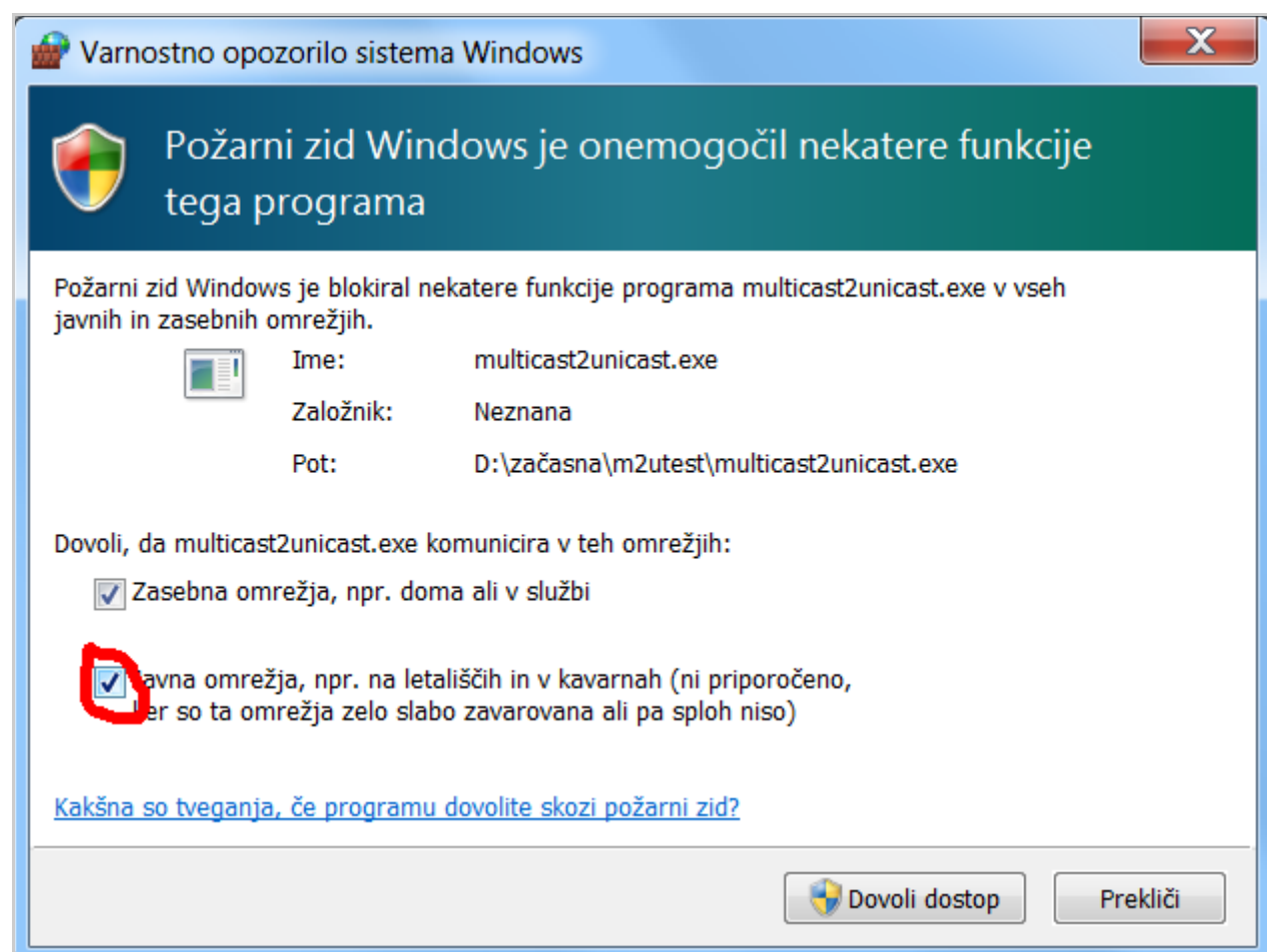
Alternatively you can run Multicast2UnicastGUI.exe, but only if you have .Net Framework installed. Net framework is already included in Windows Vista and higher. Net framework installer is also included in MulticastTV instalation package.



2. Press start and check for errors.

If no NICs are detected you must assign an ip (v4) address to both cards.

If there are no errors, firewall popup window might appear. Make sure you grant access to both networks.



One of the network interface cards might be recognised as a **Public network** !

3.a Now you can play unicast stream with your favourite video player by providing address in a folowing format:

`http://ip.address.of.server:port/multicast.ip.adress:port/`

e.g. : `http://192.168.2.4:22514/m2u/232.4.1.12:5002`

MulticastTV:

If your favourite player is MulticastTV and you already have playlist with direct multicast addresses e.g. udp://232.2.4.1:5002, you can append prefix to every item in a playlist:

Nastavitve glede na kanal

☐ Omogoči

☐ Razmerje slike

☐ Glasnost

☐ Avdio PID

☐ Zoom/Pozicija/Maska

☐ Razpletanje

☐ PID podnapisov

Počisti

Upravljanje

Izbor kanala: Dvojni klik

☐ Obmi funkcijo kolesčka

☐ Kolesček za uravnavanje glasnosti

☒ Daljinsko upravljanje: način 2

☐ Onemogoči ohranjevalnik zaslona

☒ Zapomi si zadnji izbrani kanal

☒ Ob zagonu začni s predvajanjem

DVB podnapisi

Vertikalna pozicija: 0

Prioriteta jezikov: slovenščina,slov

Audio sledi

Prioriteta jezikov: slovenščina

Snemanje

Format: ☐ Raw TS

Omrežje

UDP predpomnilnik (ms): 300

Ip predpona seznama .80.22514/m2u/

Starševski nadzor

Geslo:

Privzete nastavitve

Ostale bližnjice

This setting will add a http://192.168.2.4:22514/m2u/ prefix to every entry in a playlist.

VLC:

Odpre medij

Datoteka

Disk

Omrežje

Naprava za zajemanje

Omrežni protokol

Please enter a network URL:

http://192.168.2.80:22514/m2u/232.4.1.12:5002

http://www.example.com/stream.avi

rtp://@:1234

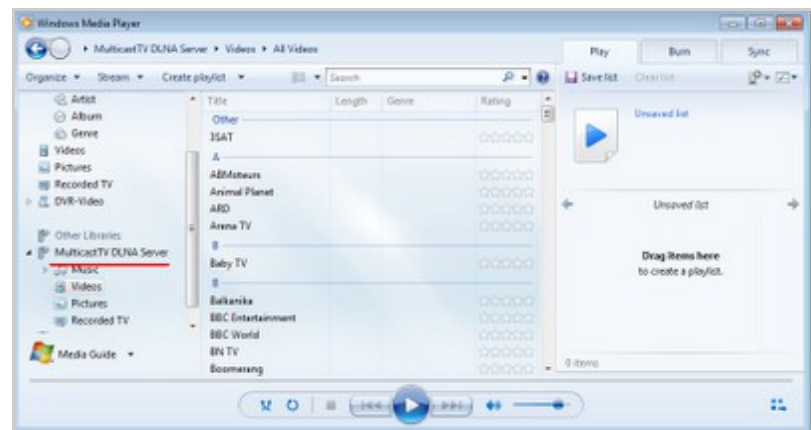
mms://mms.examples.com/stream.asx

rtsp://server.example.org:8080/test.sdp

http://www.youtube.com/watch?v=gg64x

3. b You can also use **DLNA** client. Make sure that you have *With Upnp server* checked and a valid m3u playlist.

Windows 7 Media Player:



Netgem NetBOX:



DLNA server was tested only with

- Windows 7 Media player
- Netbox Netgem