

Dual Network Cards Configuration 5.1

Introduction This document describes the configurations for the following possible scenarios in an AltiServ 5.1 or above system:

AltiServ with two network cards AltiServ with two network cards behind NAT AltiServ with two IP addresses and a single network card

AltiServ with two network cards

In this example, the AltiServ system has two network cards and two IP addresses. The primary network card has a primary IP address 209.210.14.10 with network mask 255.255.255.0, default gateway 209.210.14.1 and DNS server address 209.210.14.4. Typically, the primary IP address is used to send and receive IP packets through the Internet or other IP devices in the LAN. The primary IP address can be either a public or a private IP address.

The secondary network card in this example has a secondary IP address 192.168.2.10 with network mask 255.255.255.0. There is no default gateway and DNS in the secondary network card. The secondary IP address must be a private IP address.

The Remote IP phone (208.200.10.5) or the AltiView/IP talk (208.200.15.5) can talk to the AltiServ system through the IP address 209.210.14.10 (the primary network card). The IP phones in the range of 192.168.2.x can talk to the AltiServ system through the IP address 192.168.2.10 (the secondary network card).

Configuration steps:

Open Windows Control Panel > Network Connections.

Highlight Local Area Connection, and from the menu at the top of the window, choose Advanced > Advanced Settings.

Move the primary network card to a higher order, if possible.

In this example, the primary network card is mapping to Local Area Connection (which is already first in order), and the secondary network card is mapping to Local Area Connection 2.

Configure the primary IP address in Local Area Connection as follows:

Configure the secondary IP address in Local Area Connection 2 as follows:

Notes:

1. MAX1000 does not have two network cards. However an AltiGen Certified USB 2.0 network card can be added to the system. (See the AltiGen Knowledge Base to see which USB card(s) are AltiGen-certified. Search on “USB Network Adapter”.)
2. IP address is critical to an AltiServ system. Whenever the IP address setting is changed in Windows, you have to reboot the AltiServ system.
3. Connect Voice Stream to Server must be checked for a two-network-card configuration. Otherwise, one-way voice might happen, for example, when an IP phone with a public IP address connects to an IP phone with a private IP address.

AltiServ with Two Network Cards behind NAT

In this example, the AltiServ system has two network cards and two IP addresses. The primary network card has a primary IP address 10.10.0.10 with network mask 255.255.255.0, default gateway 10.10.0.1 and DNS server address 10.10.0.4. Typically, the primary IP address is used to send and receive IP packets through the Internet or other IP devices in the LAN. The primary IP address in this case is a private IP address. The router’s IP private IP address is 10.10.0.1 and the public IP address is 209.210.14.10.

The secondary network card has a secondary IP address 192.168.2.10 with network mask 255.255.255.0. It is also a private network, but not overlapped with 10.10.x.x. There is no default gateway and DNS in the

secondary network card. The secondary IP address must be a private IP address.

The remote IP phone (208.200.10.5) can talk to the Altiserv system through the IP address 209.210.14.10. The communication between 10.10.0.x and 192.168.2.x will go through the Altiserv system. The IP phones in the range of 192.168.2.x can talk to the Altiserv system through the IP address 192.168.2.10.

Configuration steps:

Open Windows Control Panel > Network Connections.

Go to Advanced > Advanced Settings. Move the primary network card to higher order, if possible.

In this example, the primary network card is mapping to Local Area Connection (which is already first in order), and the secondary network card is mapping to Local Area Connection 2).

Configure the primary IP address in Local Area Connection. In this example, it would look like this:

Configure the secondary IP address, Local Area Connection 2. In this example, it is:

For NAT configuration, please consult Altiserv online Help (search for "Altiserv behind NAT"). In the configuration, replace the Public IP address with your public IP address, in this example, 209.210.14.10.

For the IP Network range (under Altiserv > Servers > IP Networks), make sure the IP address ranges of both network cards are added to the table. In this example, 10.10.0.x and 192.168.2.x IP address ranges are added:

For NAT/Firewall IP/Port Forwarding, forward packets addressed to 209.210.14.10 to 10.10.0.10.

Notes:

§ MAX1000 does not have two network cards. However an AltiGen Certified USB 2.0 network card can be added to the system. (See the AltiGen Knowledge Base to see which USB card(s) are AltiGen-certified. Search on “USB Network Adapter”.)

§ IP address is critical to an AltiServ system. Whenever the IP address setting is changed in Windows, you have to reboot the AltiServ system.

§ Connect Voice Stream to Server must be checked for a two-network-card configuration. Otherwise, one-way voice might happen, for example, when an IP phone with a public IP address connects to an IP phone with a private IP address.

AltiServ with Two IP Addresses and a Single Network Card

Guidelines:

- The primary IP address, which can be either a public or a private IP address, is used to communicate with devices residing in Internet or routed private networks.
- The secondary IP address must be a private IP address connecting to a single network, that is, no default gateway is attached to this network.
- The primary and the secondary IP address should not be in the same subnet.
- IP phones always connect voice stream to server.

In this example, the AltiServ system has one network card and two IP addresses. The primary IP address is 209.210.14.10, with network mask 255.255.255.0, default gateway 209.210.14.1, and DNS server address 209.210.14.4. Typically, the primary IP address is used to send and receive IP packets through the Internet or other IP devices in the LAN. The primary IP address can be either a public or a private IP address.

The secondary IP address is 192.168.2.10, with network mask 255.255.255.0. There is no default gateway and DNS in the secondary network card. The secondary IP address must be a private IP address. In addition, the primary and the secondary IP address should not be in the same subnet.

The Remote IP phone (208.200.10.5) or the AltiView/IPTalk (208.200.15.5) can talk to the AltiServ system through the IP address 209.210.14.10 (the primary IP address). The IP phones in the range of 192.168.2.x can talk to the AltiServ system through the IP address 192.168.2.10 (the secondary IP address).

Configuration steps:

Open Windows Control Panel > Network Connections.

Double-click Local Area Connection, then click the Properties button.

Select Internet Protocol (TCP/IP), and click the Properties button.

Configure the primary IP address in the Local Area Connection. In this example, it looks like this:

Click the Advanced button, then click the Add button under IP addresses.

Add the secondary IP address. In this example, it would be:

4. Make sure the primary IP address, 209.210.14.10 in this example, is above the secondary IP address, 192.168.2.10 in this example:

Notes:

§ IP address is critical to an Altiserv system. Whenever the IP address setting is changed in Windows, you have to reboot the Altiserv system.

§ Connect Voice Stream to Server must be checked for a two-IP address configuration. Otherwise, one-way voice might happen, for example, when an IP phone with a public IP address connects to an IP phone with a private IP address.

<https://know.altigen.com/questions/787/>