

# ***ClearOne***<sup>®</sup>

ViewLinX - VL9300 Digital AV Decoder

## INSTALLATION MANUAL



**ClearOne**  
**5225 Wiley Post Way**  
**Suite 500**  
**Salt Lake City, UT 84116**

**Telephone**      1.800.283.5936  
                         1.801.974.3760

**FAX**                1.801.974.3669

**E-mail**             tech.support@clearone.com

**On the Web**        www.clearone.com

## **VIEWLINX VL9300 INSTALLATION MANUAL**

### **CLEARONE DOCUMENT**

**800-000-051 - Aug 24, 2011 (Rev. 1.1)**

© 2011 ClearOne All rights reserved. No part of this document may be reproduced in any form or by any means without written permission from ClearOne. ClearOne reserves specific privileges.

Information in this document is subject to change without notice.

U.S. PATENTS:    7,643,894  
                         7,711,126

VESA Patent Pending Number: 61/232,088

Australia            2003-241405

Korea                10-2004-7017970

Other US and International Patents Pending.

VESA Patent Pending Number: 61/232,088

# Table of Contents

Introduction .....	1
<b>PRODUCT OVERVIEW</b>	
StreamNet IP AVOIP™ Platform .....	1
Device Application .....	1
Electrical Connections .....	2
Analog Audio .....	3
Digital Audio .....	3
Status LED .....	3
10/100 Ethernet Jacks .....	3
DVI Out .....	3
IR Out / RS -232 .....	3
10 - 28VDC Input .....	3
<b>INSTALLATION</b>	
Physical Characteristics .....	4
Dimensions (Excluding Connectors) .....	4
Enclosure .....	4
Special Dual Ethernet and Power Connections .....	4
<b>METHODS FOR MOUNTING THE VL9300</b>	
Wall Mount .....	4
Surface Mount .....	5
VESA Mount .....	5
<b>SOFTWARE SETUP OF THE VL9300</b>	
<b>COMPLIANCE</b>	
Compliance Overview .....	10
RoHS Compliance .....	10
Sustainability .....	10
Electrical Safety Advisory .....	10
Compliance Details .....	10
FCC Compliance .....	10
European Compliance .....	10
<b>SERVICE AND SUPPORT</b>	
Technical Support .....	11
Techsales and Customer Service .....	11
Product Returns .....	11

# Introduction

## PRODUCT OVERVIEW

### STREAMNET AVOIP™ VIDEO PLATFORM

The StreamNet IP platform is designed to send high-quality audio and video over a TCP/IP network (AVOIP™). An encoder, such as a MediaLinX A/V, takes video and audio from a source device, such as a DVD player, and streams that video onto a TCP/IP network. A decoder, such as the VL9300, takes the combined video and audio stream and decodes it. The VL9300 then sends the video and audio to a display such as a HDTV or projector and sound system.

### DEVICE APPLICATION

The VL9300, is a high definition, Internet Protocol, Compressed Video Decoder. The VL9300 connects to a TCP/IP network using a standard 10/100 Ethernet connection. The VL9300 is designed to be installed at or near the location of the target video display. The VL9300 decodes compressed video with synchronized audio.

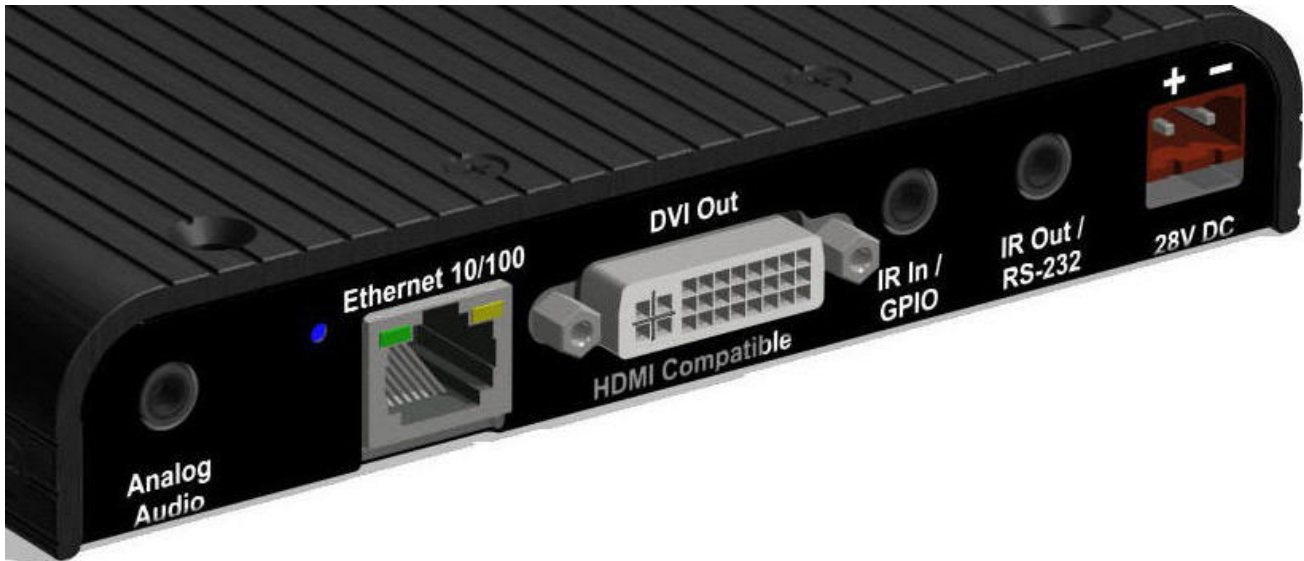
The VL9300 can also output an audio-only feed from any StreamNet source. Installation should be done by a qualified NetStreams Dealer Service representative. Please consult DigiLinX Installation Manual for device use in system configuration.



## Electrical Connections

The ViewLinX VL9300 has connectors on the back and underneath the unit for flexibility in use.

- 1x - DVI, HDMI-compatible output connector.
- 2x - 10/100 Ethernet jacks; at back and on bottom. (Use one at a time)
- 2x - Two-pin, 5mm, male, terminal block power connectors; at back and on bottom. (Use one at a time)
- 3x - 3.5mm three-conductor phone jacks.



### **ANALOG AUDIO**

This 3.5mm three-conductor phone jack provides stereo audio output or stereo audio input depending on the configuration.

### **DIGITAL AUDIO**

Digital audio output is also available on the HDMI-compatible DVI connector.

### **STATUS LED**

This small blue LED lights up when the unit is powered up.

### **10/100 ETHERNET JACKS**

Each of the two 10/100 Ethernet connectors allow connection to a TCP/IP network that is setup to run StreamNet. While there are two Ethernet connectors on the VL9300, only one may be used at a time. Attempting to use both connectors at the same time will disrupt the network signal. The two connectors are **not** connected to an internal network switch, and may not be used to daisy-chain another Ethernet device. The purpose of these two discrete connectors is explained later in this document. (See Physical Installation section.)

### **DVI Out**

The DVI connector on the VL9300 transmits digital video and audio. The signal is compatible with HDMI when used with a standard DVI to HDMI adapter. While the DVI connector is physically compatible with a DVI-I cable, there are no analog video signals on the connector. DVI was selected as the video connector to ensure a more robust connector type. A DVI connector has mounting screws that can secure the output cable to the enclosure.

### **IR In / GPIO**

This 3.5mm three conductor jack allows connection of either a NetStreams infrared receiver, or NS-VLCOM GPIO accessory device. The infrared receiver can pick up IR remote control signals and pass them onto the StreamNet network. The NS-VLCOM GPIO accessory (sold separately) allows up to four contact closure sensors, and four contact closure outputs to be added to the VL9300. The NS-VLCOM also has IR pass-through. Can control CEC equipped displays with optional CEC adapter.

The use of this is defined by the customer requirement. Consult the System Installation Manual for further information.

### **IR Out / RS -232**

This 3.5mm three conductor phone jack allows the VL9300 to control a television, or other connected device. It supports sending infrared remote signals, or bidirectional RS-232 serial data signals. Only one type of signal may be configured at a time. Use is defined by customer requirement. Consult System Installation Manual for further information.

### **10 - 28VDC INPUT**

This 5.0mm two pin terminal block connector provides power input for the VL9300. There are two power connectors on the VL9300. They are diode protected such that power does not pass from one connector and out the other. They cannot be used to extend a run of power (daisy chain) to another device. For larger system installation please consult the System Setup Manual.

**Video Test Patterns** - Consult StreamNet Software instructions for access to and use of video test patterns in a system installation.

# Installation

## PHYSICAL CHARACTERISTICS

### DIMENSIONS (EXCLUDING CONNECTORS)

Width: 5.75 inches (146mm)

Length: 4.57 inches (116mm)

Height: 1.00 inch (25.4mm)

Three units will fit by side on a standard 19-inch rack shelf. The unit is only one inch thick allowing installation behind even the thinnest televisions and monitors.

### ENCLOSURE

The enclosure lid is made using a strong wrap-around aluminum extrusion finished with a black anodized surface providing solid, durable protection for the VL9300.

### SPECIAL DUAL ETHERNET AND POWER CONNECTIONS

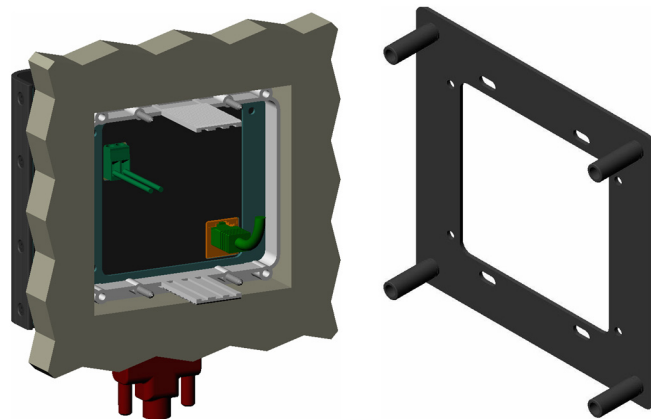
The VL9300 has two 10/100 Ethernet jacks, and two power input jacks making product installation more versatile. Only one of each type may be connected at any one time.

The Ethernet and power connections are made from either inside a wall to the underside of the unit, or from outside the wall to the back of the unit. The status lights on both Ethernet connectors indicate data connection regardless of which jack is in use, allowing diagnosis of network connection.

## METHODS FOR MOUNTING THE VL9300

### WALL MOUNT

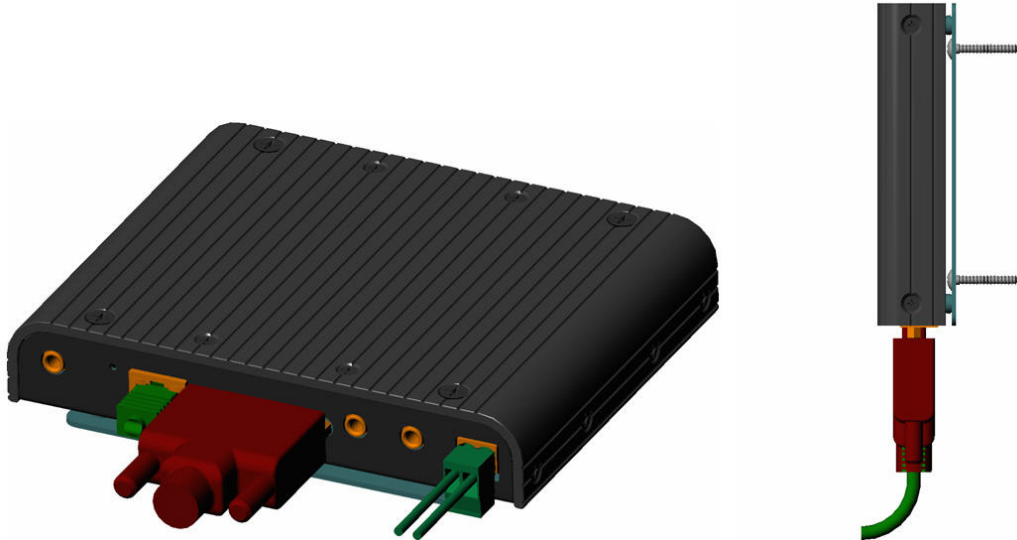
This bracket, included with the VL9300, includes long standoffs that pass into the enclosure. This ensures the unit will not slip off the bracket during installation. The bracket can mount over a standard 2-gang wall box or zip-ring. This configuration is what allows the power and Ethernet cables to be hidden inside the wall. The 100x100 mounting holes are symmetrical so the unit can be installed with the external cables approaching from any direction.



## SURFACE MOUNT

The same bracket used for a wall mounting over a wall box can be used to mount the VL9300 directly on a solid surface. When mounted on a flat surface all the I/O connections on the VL9300 are accessible from the back of the unit as shown below.

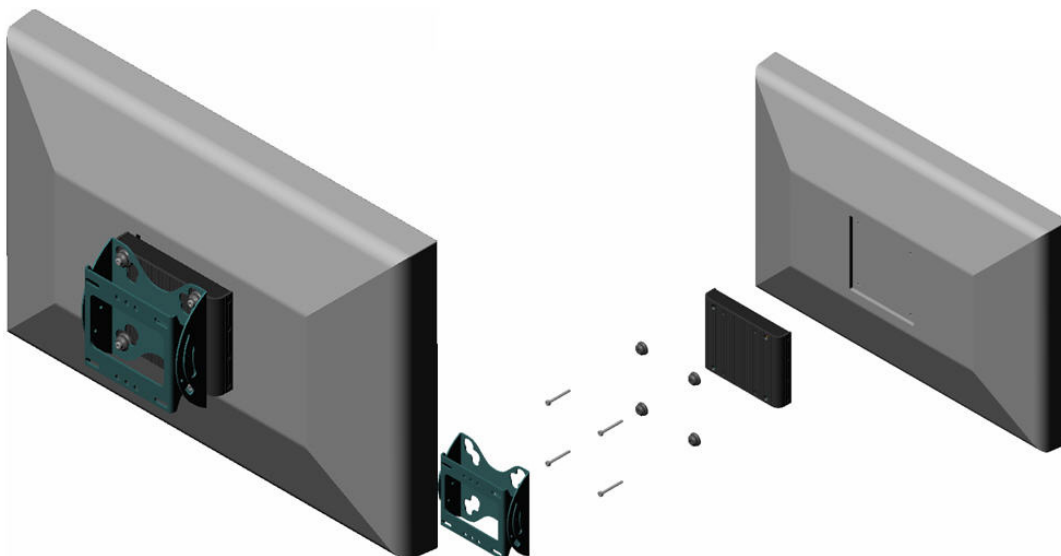
Because the VL9300 is only 1-inch thick, and the cables exit out the back of the unit, it actually takes less depth to plug a DVI cable into the VL9300 than to connect it directly to a connector in a wall plate.



## VESA MOUNT

The VL9300 mounting holes are positioned at 100x100 mm. This, along with the strong enclosure, allows the VL9300 to mount directly to the back of a monitor, television or projector as long as the monitor is compatible with the VESA 100x100 mounting standard. These are typically televisions or monitors with a display size up to 36 inches, or a weight up to 45 lb. Different types of VESA mounts may require extra hardware that is not included with the VL9300.

### Patent Pending VESA Mount:

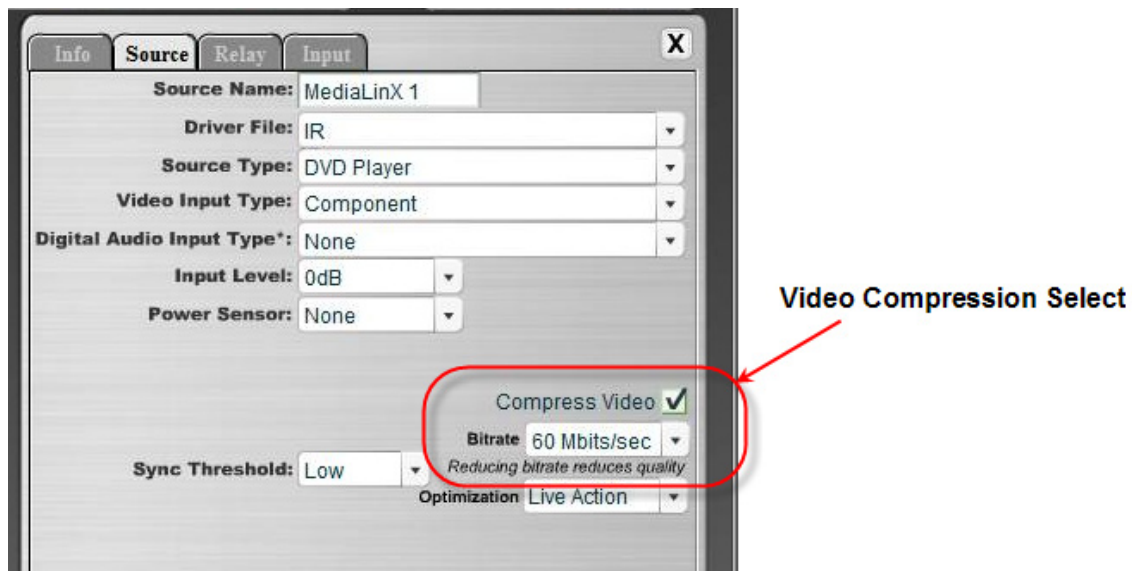




## Software Setup of the VL9300

The VL9300 is setup for use in the commercial or residential network using the StreamNet Dealer Setup program and the accompanying StreamNet Dealer Setup manual. StreamNet Dealer Setup is a PC-based program that allows you to configure devices so that they can communicate across a StreamNet network. Phases of the software setup include:

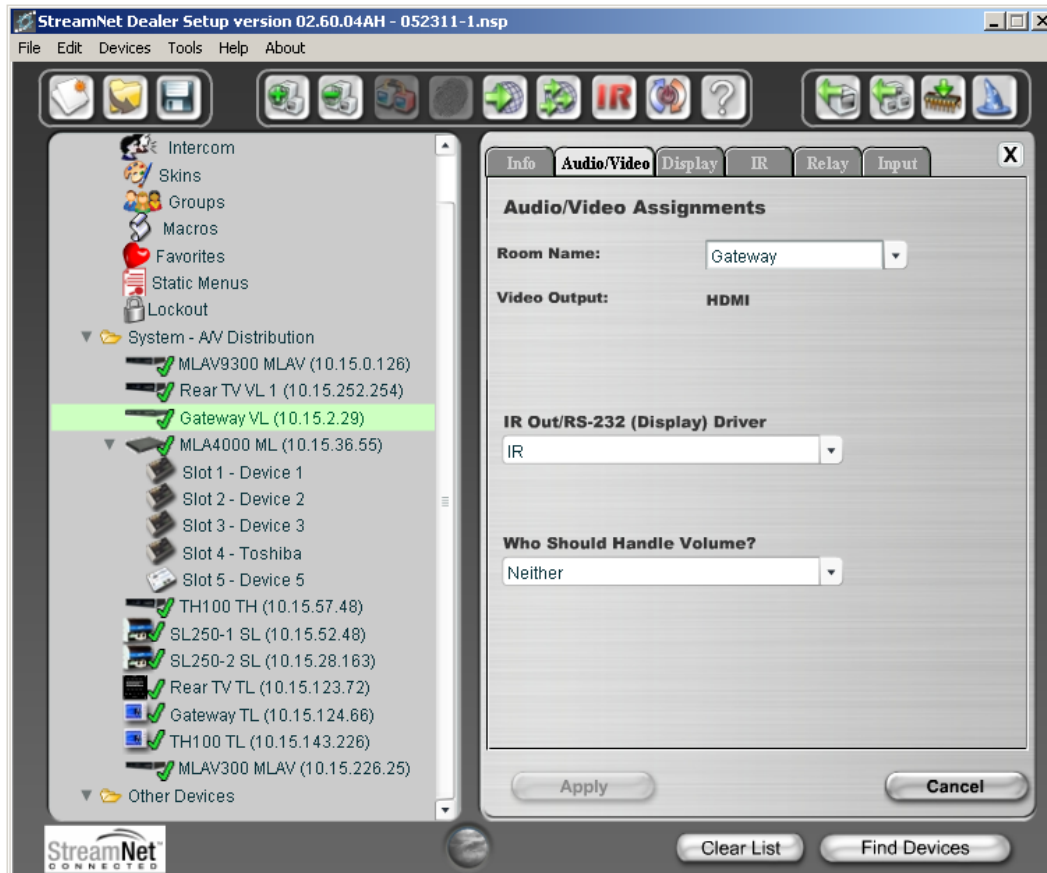
- Opening the existing project
- Set sources for compression
  - » Any video sources within the Network that will be viewed using the VL9300 decoder (MLAV300 or MLAV9300-CS), must be in configured for compression using the **Sources Tab** for those devices.

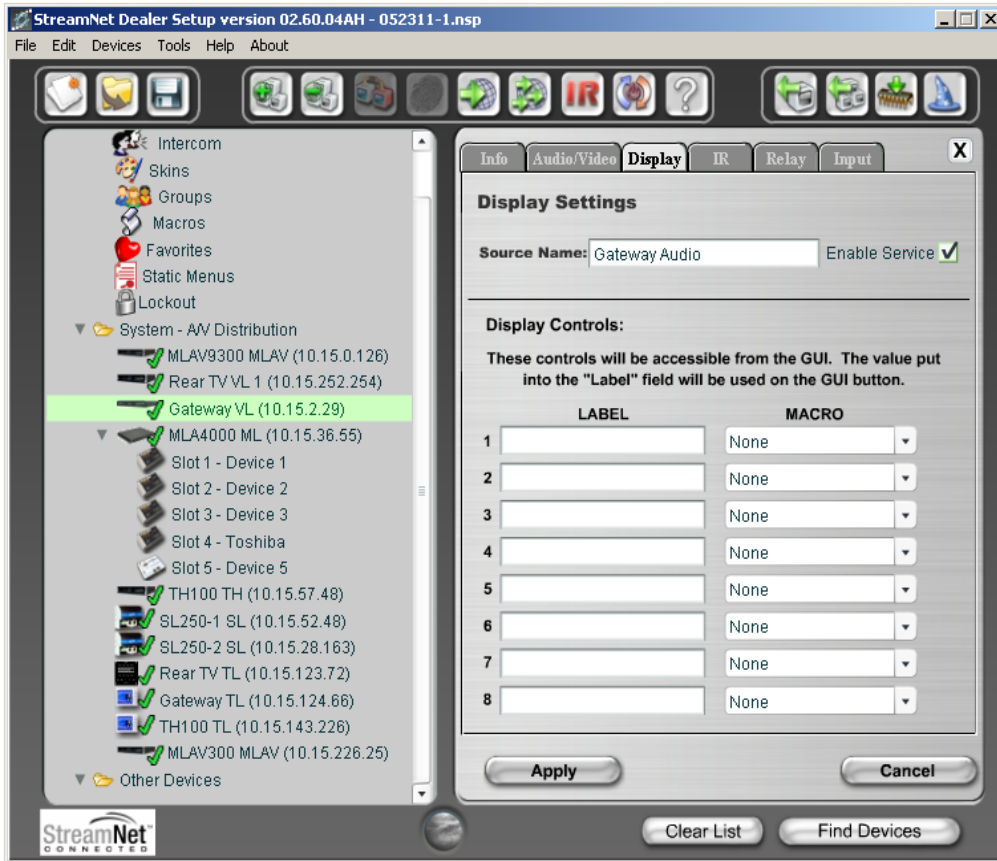


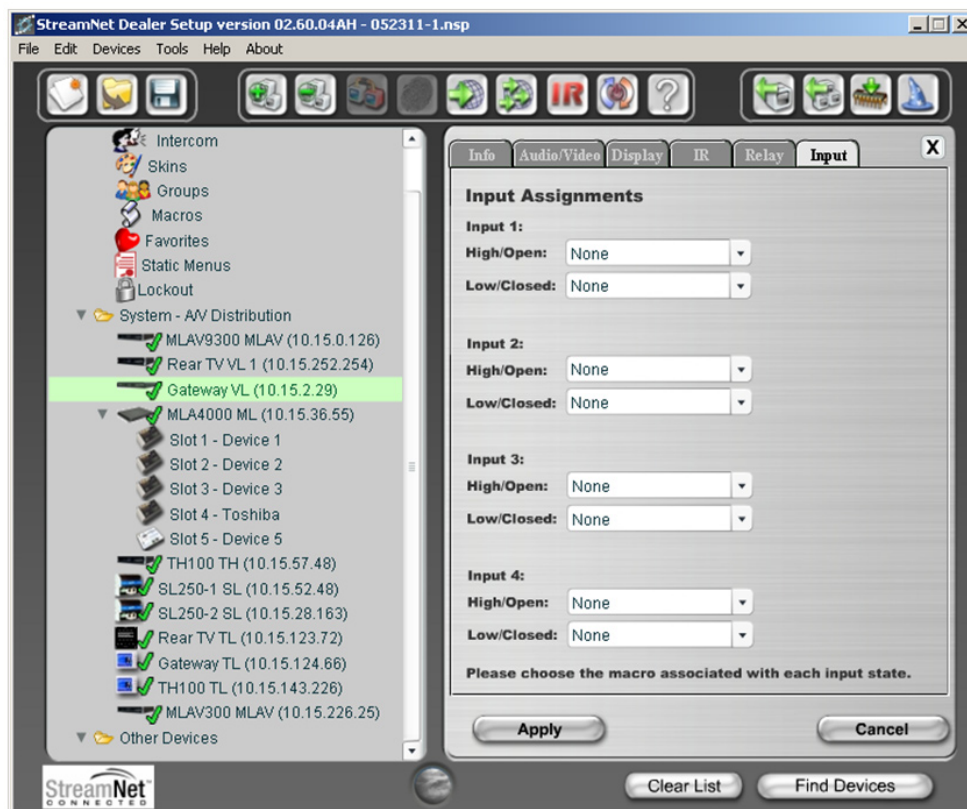
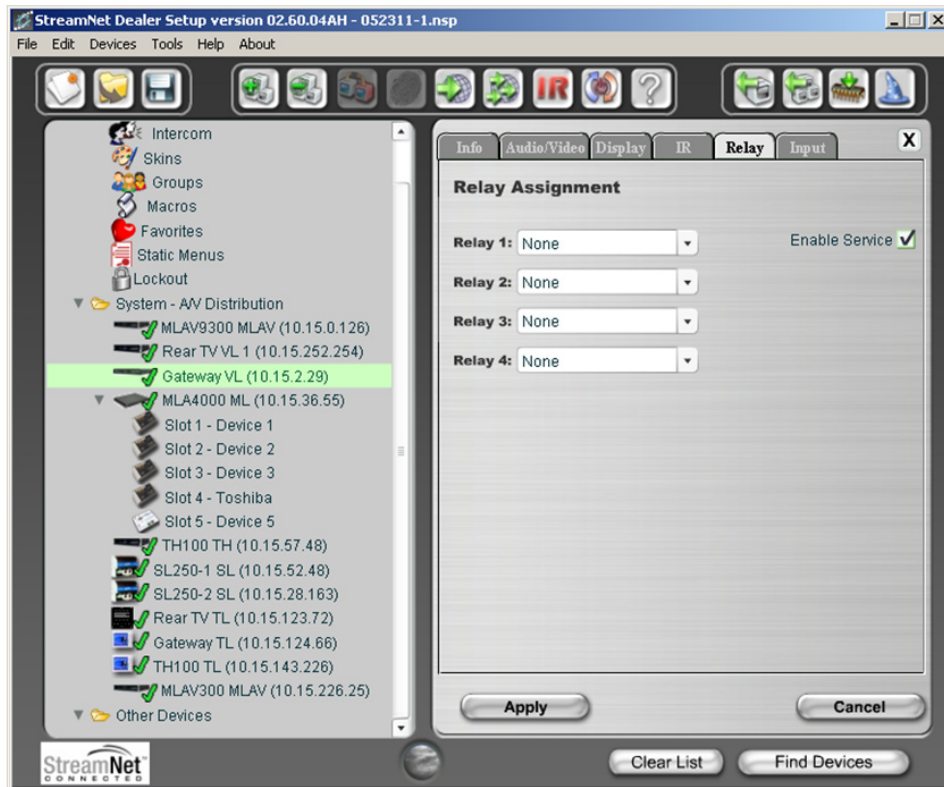
- Find the new device
- Matching the new VL9300 physical hardware device to the hardware setup in the project
- Configuring the device with system-specific information
- Saving the project
- Sending the configuration files to the server

These steps involved in these processes are detailed in the DigiLinX Dealer Setup manual available for viewing or download at [www.netstreams.com](http://www.netstreams.com).

Verify the configuration information on the tabs for the Gateway VL device as shown in the following screens:







# Compliance

## COMPLIANCE OVERVIEW

### ROHS COMPLIANCE

All components and processes used to produce the VL9300 will comply with the RoHS initiative.

### SUSTAINABILITY

The VL9300 is compliant with the WEEE recycling initiative. It is made from easily recyclable materials such as aluminum and steel.

### ELECTRICAL SAFETY ADVISORY

This equipment uses DC power supplied from an external source which can be subjected to electrical surges, typically lightning transients which are very destructive to customer terminal equipment. The warranty for this equipment does not cover damage caused by electrical surge or lightning transients. To reduce the risk of this equipment becoming damaged it is suggested that the customer consider installing a surge arrestor.

Any modifications to the device without express authorization from ClearOne is prohibited as per 47CFR15.21 and could void the users authority to operate the device.

## COMPLIANCE DETAILS

### FCC COMPLIANCE

FCC Part 15: This device complies with FCC Part 15 regulations for a Class A device.

- » NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### EUROPEAN COMPLIANCE

Details on European equipment compliance can be found on the ClearOne website at the following location: [www.ClearOne.com/resources/EuroDOC.php](http://www.ClearOne.com/resources/EuroDOC.php)

# Service and Support

If you need assistance setting up or operating your product, please contact us. We welcome your comments so we can continue to improve our products and better meet your needs.

## TECHNICAL SUPPORT

Telephone: 1.800.283.5936  
E-mail: [tech.support@ClearOne.com](mailto:tech.support@ClearOne.com)  
Web site: [www.ClearOne.com](http://www.ClearOne.com), [www.NetStreams.com](http://www.NetStreams.com)

## SALES

Telephone: 1.800.707.6994  
E-mail: [sales@ClearOne.com](mailto:sales@ClearOne.com)

## TECHSALES

Telephone: 1.800.705.2103  
E-mail: [techsales@ClearOne.com](mailto:techsales@ClearOne.com)

## PRODUCT RETURNS

All product returns require a Return Material Authorization (RMA) number. Contact ClearOne Technical Support before returning your product. Make sure you return all the items and packing materials that originally shipped with your product.

AVOIP™

## CLEARONE LOCATIONS

### HEADQUARTERS:

**Salt Lake City, UT USA**  
5225 Wiley Post Way  
Suite 500  
Salt Lake City, UT 84116

**Tel:** 801.975.7200  
**Toll Free:** 800.945.7730  
**Fax:** 801.977.0087  
**e-mail:** [sales@clearone.com](mailto:sales@clearone.com)

**EMEA**  
**Tel:** 44 (0) 1189.036.053  
**e-mail:** [global@clearone.com](mailto:global@clearone.com)

**APAC**  
**Tel:** 801.303.3388  
**e-mail:** [global@clearone.com](mailto:global@clearone.com)

**LATAM**  
**Tel:** 801.974.3621  
**e-mail:** [global@clearone.com](mailto:global@clearone.com)

**Technical Sales**  
**Tel:** 800.705.2103  
**e-mail:** [techsales@clearone.com](mailto:techsales@clearone.com)

**Technical Support**  
**Tel:** 800.283.5936  
**e-mail:** [tech.support@clearone.com](mailto:tech.support@clearone.com)