

# DVCS

## Distributive Vision Control System

100% Digital Network

No Single Point of Failure

Real Time Preview and Playback

Supports Over 10,000 Sources and Displays

SRIS Supports Resolutions up to 102,400 x 7,680

IPSS Imports IP-Based Video Content

[www.deltadisplays.com](http://www.deltadisplays.com)

 **DELTA**  
Smarter. Greener. Together.

# THE REVOLUTIONARY DISTRIBUTED DISPLAY CONTROL SYSTEM



DVCS is Delta's revolutionary IP-based distributive video wall control system. The powerful, highly expandable DVCS offers the most reliable and cost-effective solution for controlling video walls in any mission-critical environment where every detail matters.

## Exceptional Video Quality

The Delta DVCS incorporates a number of advanced processing technologies including state-of-the-art signal capturing, motion adaptive de-interlacing, high quality image scaling, 3D noise reduction, color dithering, color space conversion and IP stream transmission. The processors capture video signals at full resolution while retaining their original frame rate and color depth. These technologies combine to deliver exceptional image quality on the display with no signal degradation over long distances, round the clock, day in and day out.

## Highly Flexible and Scalable

Designed with a distributed structure, the highly scalable DVCS can distribute, display and control literally thousands of digital and analog video sources on any array of displays using standard, off-the-shelf CAT5 cabling. It also provides the ability for a centralized control system to manage multiple video walls.

From large-scale configurations to small-scale systems, the solution can meet any requirement, with support for over 10,000 sources and display units.



## 100% Digital Network

The DVCS utilizes the state-of-the-art input processors which capture video signals from a range of input sources including computers and video cameras. Signals are processed and transmitted to the output processors for real-time playback on video walls over an IP network using standard CAT5 cabling.

All video signals are captured, processed, transmitted and displayed in digital format. This ensures all signal noise is completely avoided with no degradation in signal quality over long distances.

The input and output processors have dedicated bandwidth within the DVCS network to ensure data transmission between the processors is completely independent of other communicating processors.

## High Reliability

Designed with a distributive system structure, the DVCS ensures the highest level of reliability. Furthermore, its embedded design makes the system ideal for 24/7 operation with no risk of computer viruses entering the system.

## Simple System Installation

All input and output processors are connected via standard, off-the-shelf CAT5 cables. This makes the system design and installation process extremely simple and easy. With a highly intuitive web-based interface, you can effectively manage and control your video walls, all in real time.





## Control at Your Finger Tips

At the heart of the DVCS solution is the DVCS Manager, a highly intuitive, easy-to-use web-based interface that allows you to effectively manage and control your video walls, all in real time. Sources can be displayed at any size, any position on any display. You can enjoy even greater flexibility with the DVCS Manager mobile app to stay connected and productive on the go. With support for third party API integration, the DVCS also works over existing network to meet every application need.

The DVCS Manager supports static layouts and auto layouts. Users can easily create, edit and save layouts for real-time playback on a video wall.

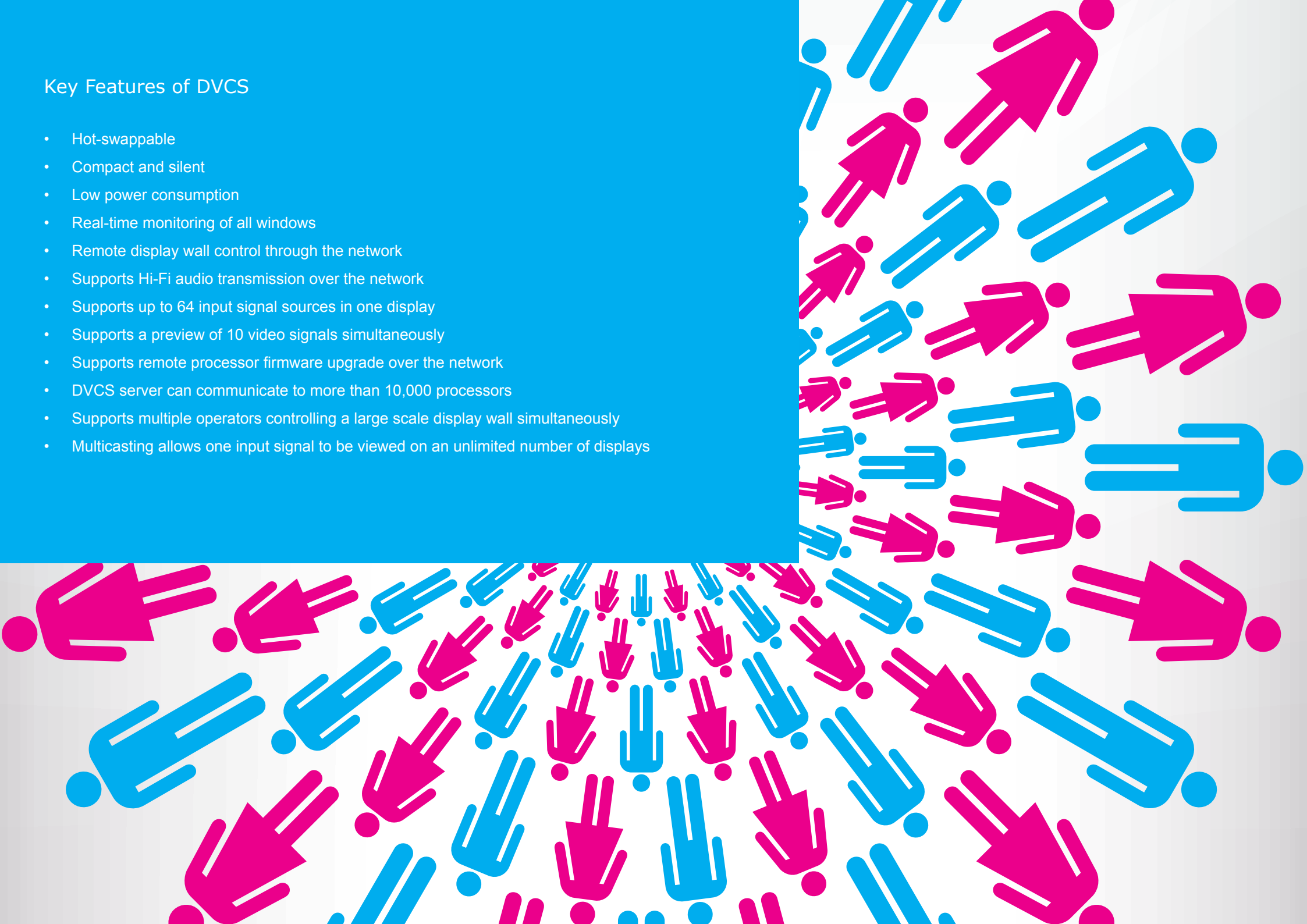
The web-based DVCS Manager interface allows users to control the DVCS via any web browser. This structure also enables multiple users to control the display at the same time. The DVCS manager provides a preview of up to 10 video signals, enabling the user to review video signals before they are presented live.

## Control Your Video Wall with an iPad

Specifically designed to control and manage video walls, the Delta DVCS Manager application provides end users with control capabilities instantly and directly from their iPads over a WiFi connection.

## Key Features of DVCS

- Hot-swappable
- Compact and silent
- Low power consumption
- Real-time monitoring of all windows
- Remote display wall control through the network
- Supports Hi-Fi audio transmission over the network
- Supports up to 64 input signal sources in one display
- Supports a preview of 10 video signals simultaneously
- Supports remote processor firmware upgrade over the network
- DVCS server can communicate to more than 10,000 processors
- Supports multiple operators controlling a large scale display wall simultaneously
- Multicasting allows one input signal to be viewed on an unlimited number of displays





## Super Resolution Image Software

Built upon the advanced technology of the DVCS, Delta's SRIS (Super Resolution Image Software) solution is designed to display super high resolution images pixel for pixel at resolutions up to 102,400 x 7,680. It is a user software application capable of creating a dynamic image based on the MS Windows Server 2008 (64 bits) platform. Super high resolution images are nearly indispensable nowadays for applications such as SCADA, GIS and GPS to achieve accurate control and monitoring of information. With DVCS Manager, sources can be displayed alongside or over the super high resolution content at any size, any position on any display.

### SRIS Features

- Supports pixel for pixel clarity for content with resolutions up to 102,400 x 7,680
- Displays with additional DVCS content sources
- Low delay real-time super high resolution image display
- Supports super high resolution text display

## Multi-channel IP Stream Decoding Solution

Based on the DVCS technology, Delta's latest IP stream decoding solution provides the capabilities to capture and display various IP stream signals. This enables the DVCS to participate in large-scale surveillance networks with high-performance and cost-effective decoding and monitoring.

Delta's Multi-channel IP Stream Software (IPSS) is compatible with various IP camera models and coding formats including MPEG-2, MPEG-4, H.264, MJPEG and Wavelet.

The IPSS can automatically detect the signal format of an IP camera. The DVCS CODEC engine then decodes, encodes the video, and sends it to the DVCS display processors. Users can control and display the videos in moveable and scalable windows on the display wall.

### IPSS Features

- IP video streaming
- Supports up to 32-CH QCIF decoding of IP stream per client
- Supports resolutions ranging from QCIF to HD
- Compatible with various IP camera models and coding formats
- High compression for superior image quality and maximum bandwidth efficiency
- 1000M Base-T network

## Hi-Fi Audio Transmission Over Network

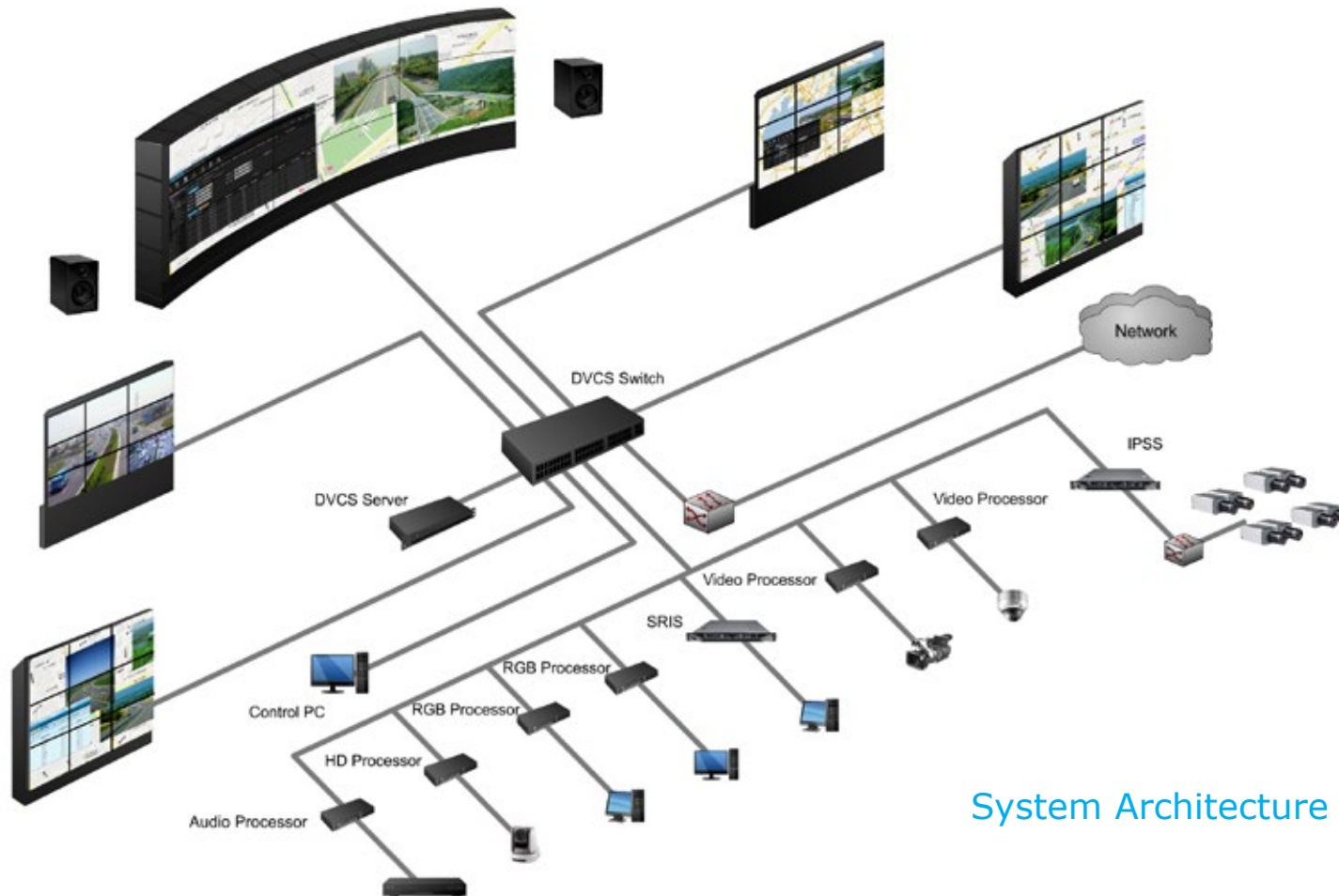
With the Delta DVCS, digital distribution of audio signals is no longer limited by cables. The DVCS audio processors encode and decode both analog and digital audio signals, and send the signals as IP packets over the network – all in real-time using standard CAT5 cabling.

The DVCS audio processors are precisely synchronized with the video processors to achieve highly accurate lip synchronization. The input processor captures and transmits audio signals to a single or multiple audio output processors for playback. The audio output processor is able to accept up to 16 audio streams simultaneously.

## Software Protection

The DVCS manager incorporates WIBU encryption – the world's most advanced technology in software protection and license management. The software is encrypted with AxProtector by integrating secure information into the software and storing the license in a USB dongle.

When the DVCS manager is running, it first checks the USB dongle to obtain license information. All required data and codes are then decrypted into the memory, while other data is re-encrypted dynamically. Thus, the software is completely protected against unauthorized access while it is running.



System Architecture

# GLOBAL OFFICES



Website [www.deltadisplays.com](http://www.deltadisplays.com)  
Contact Us [vw.sales@deltadisplays.com](mailto:vw.sales@deltadisplays.com)

## Europe

### NETHERLANDS

Delta Electronics Europe  
Zandsteen 15,2132 MZ  
Hoofddorp,  
The Netherlands



### SLOVAKIA

Delta Electronics (Slovakia) s.r.o.  
Priemyselna ulica 4600/1  
018 41 Dubnica nad Vahom  
Slovakia



### FRANCE

Delta Electronics (France) S.A.  
ZI du bois Chaland  
2 15 rue des Pyrenees,  
Lisses 91056 Evry Cedex



## Americas

### USA/PORTLAND

Delta Products Corporation  
1600 NW Compton Dr., Suite 100  
Hillsboro, OR 97006  
USA



### USA/FREMONT

Delta Products Corporation  
4405 Cushing Parkway,  
Fremont, CA 94538  
USA



### BRASIL

Delta Greentech (Brasil) S/A  
Rua Almirante Alexandrino,  
3100 - Afonso Pena  
83045-210 - São Jose dos  
Pinhais- PR - Brasil



## Asia

### TAIWAN

Delta Electronics, Inc.  
186 Ruey Kuang Road,  
Neihu, Taipei 11491, Taiwan



### THAILAND

Delta Electronics (Thailand) PCL  
909 Soi 9 Moo 4, E.P.Z.Bangpoo  
Industrial Estate, Tambon Prakasa,  
Amphur Muang Samutprakarn,  
Samutprakarn 10280, Thailand



### KOREA

Delta Electronics (Korea) Inc  
1511, Byucksan Digital Valley  
6-cha, Gasan-dong,  
Geumcheon-gu,  
Seoul, Korea 153-704



### INDIA

Delta India Electronics Pvt. Ltd  
Plot No 43 Sector 35, HSIIDC  
Gurgaon 122001, Haryana, India



### SINGAPORE

Delta Electronics Int'l (S) Pte. Ltd.  
4 Kaki Bukit Ave 1, #05-05  
Singapore 417939



### CHINA

Delta Electronics (Shanghai) Co., Ltd.  
No.182 Minyu Road,  
Pudong Shanghai, P.R.C.  
Post Code: 201209



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