

# IP Communications





## Cost-effective, high capacity and reliable.

A world class communication system maximizes utility for remote broadcast networks with broadcast-quality intercom solutions.

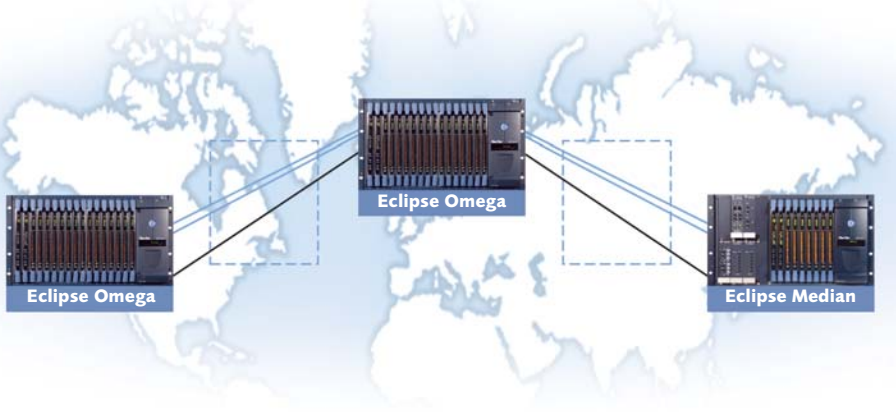
Whether for an OB van in the field, a remote bureau of a broadcast network across an ocean, or a large facility spread across multiple buildings, Clear-Com offers the most advanced connectivity solutions to link matrices to matrices and matrix to panels over large distances.

Clear-Com VoICE (Voice over IP Communication Equipment) solution takes advantage of Internet Protocol and leverages the growing availability of virtual private networks and the internet to lower operating costs for wide area linked matrices and panel users.

### Intelligent Networking

Intelligent Networking is the solution to connect together widely separated matrices. Clear-Com high capacity linking of Eclipse matrix frames include:

Analogue Trunk, Fiber-Net and IP Trunk lines.



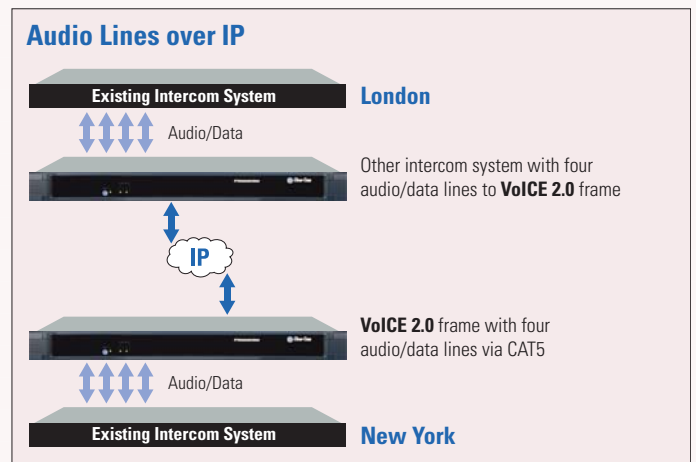
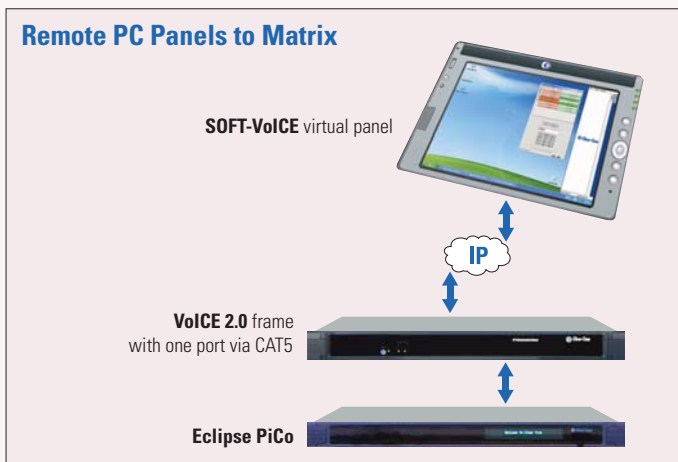
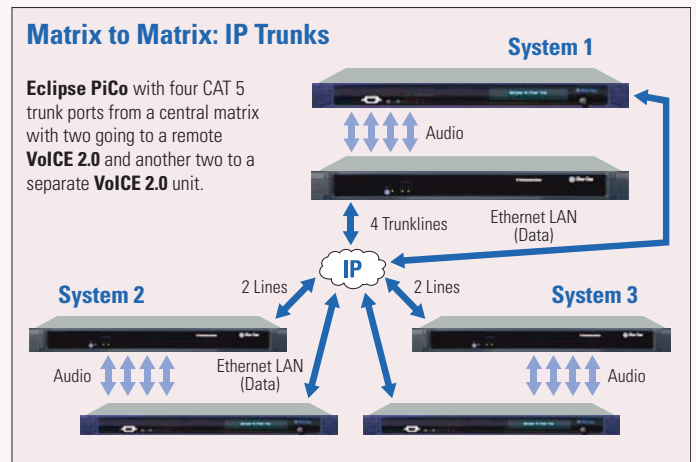
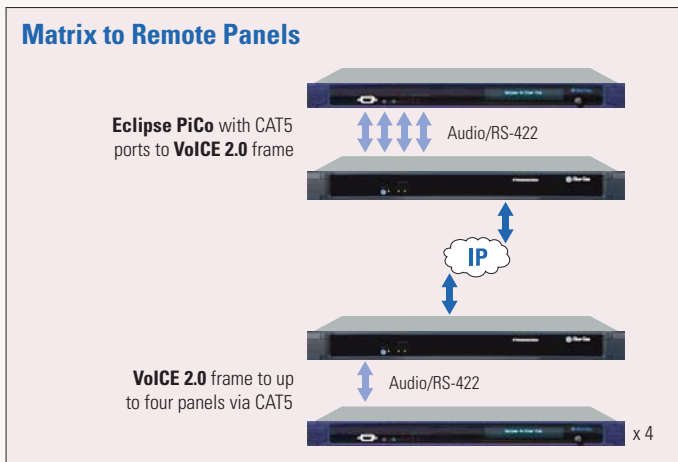
## VoICE 2.0

Clear-Com VoICE frame (Voice over IP Communication Equipment) provides customers with a simple to use, low cost solution to extending intercom facilities to remote sites.

Each 4-way VoICE interface frame when operating back to back with other frames provides these connectivity opportunities:

- Up to 4 remote user panels intelligently linked backed to the Eclipse Digital Matrix with all the functionality of a locally connected panels.
- Up to 4 intelligent trunk lines between remote matrix systems which provides efficient and automatically managed routing between remote systems over IP.
- Up to 4 four-wire Audio pairs and 4 Asynchronous RS-422 data links between remote sites.
- Up to 4 Remote SOFT-VoICE PC-based Virtual Intercom panel to matrix ports.

### IP Communications VoICE 2.0



# IP Communications VoICE 2.0

VoICE 2.0 uses state of the art audio CODECs to provide low latency audio digitization in user selectable formats from full bandwidth to 7KHz audio band pass. VoICE 2.0 now comes with even more choices for user selectable network bandwidths and with Silence Suppression thus saving data bandwidth.

Latest Echo Cancelling technology enables the use of open gooseneck Mic and loudspeaker operation by reducing the loop audio echo digitally.

The IP processing engine uses the very latest in Real Time Processing (RTP) and Type of Service (ToS) technology to provide high priority tunneling to ensure that the best connectivity is maintained even in highly loaded networks.

VoICE 2.0 enables the use of the powerful virtual PC intercom panel SOFT-VoICE, enabling users to connect the central intercom system from any remote location via internet access from their PCs.

Each VoICE 2.0 frame comes with a password protected PC Web client

application that provides both IP line and CODEC set-up and with diagnostics that can be monitored from a centralized remote maintenance position.

Earlier versions can be upgraded to VoICE 2.0 to take advantage of the new virtual PC panel, SOFT-VoICE.

## Product features and specifications

	Hardware Description
<b>Front Panel</b>	Power Button Power LED (Green when on) Port Status LEDs 1-4 (Green when connected)
<b>Rear Panel</b>	A/C Power IEC LAN1 (IP Network) RJ-45 LAN2 (Debug/set-up port) RJ-45 USB To Matrix 1-4 RJ-45 To Panel 1-4 RJ-45



## SOFT-VoICE

SOFT-VoICE is a virtual PC panel that connects to the intercom matrix over the IP network or Internet. It is a PC application that will connect to the Clear-Com VoICE 2.0 interface at the matrix site.

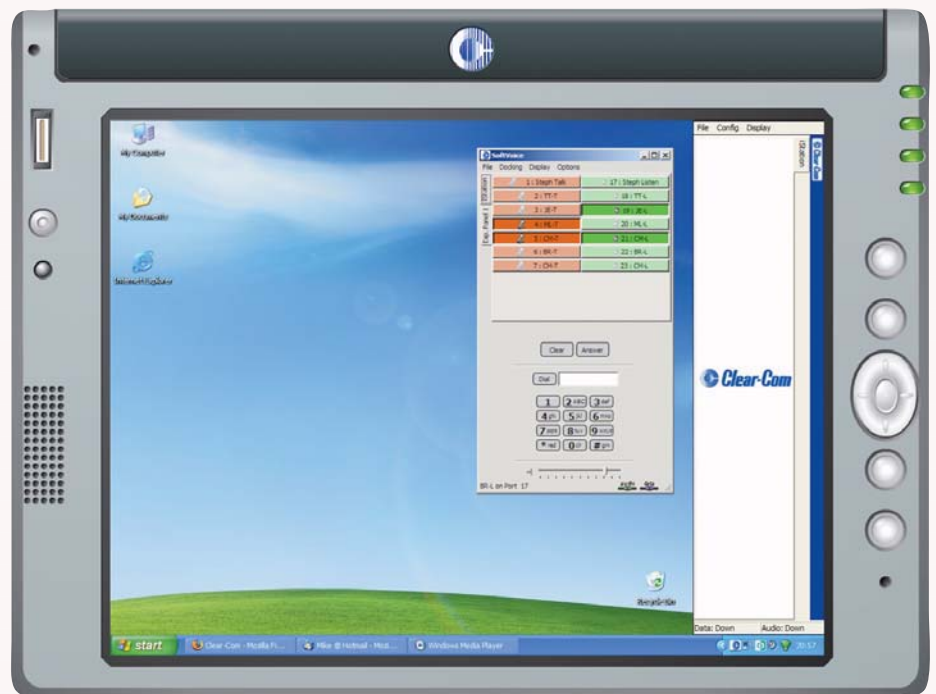
SOFT-VoICE is configured through the ECS (Eclipse Configuration System). The virtual panel imitates an I-Station with a main page of 30 keys and 4 extra shift pages. The I-Station keypad is used for telephone dialling from the central Eclipse matrix interfaces. SOFT-VoICE used in this way takes advantage of all the host matrix facilities including IFBs, ISOLated calls and logical routes.

The SOFT-VoICE user has the same functionality as local panels with talk only, listen only and combination keys such as Dual Talk and Listen and Talk with Forced listens. SOFT-VoICE users can participate in networked matrices, using the intelligent Fibre and trunking at the host matrix.

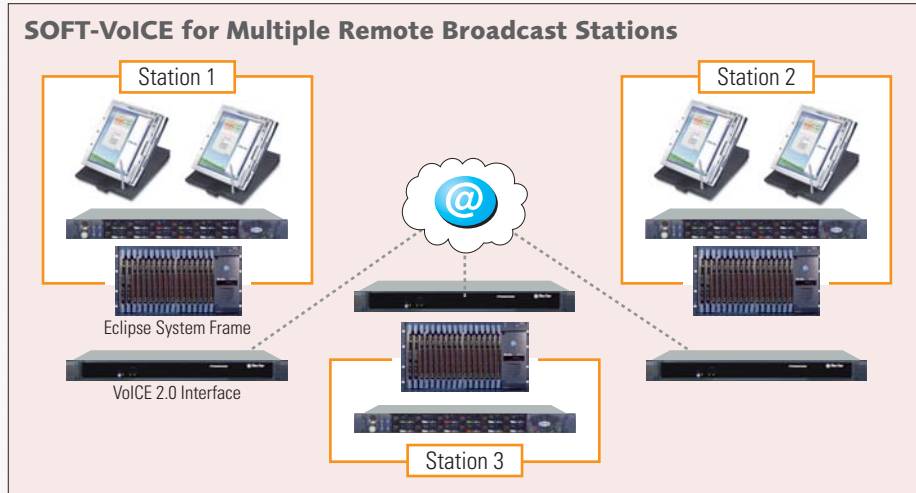


### Benefits

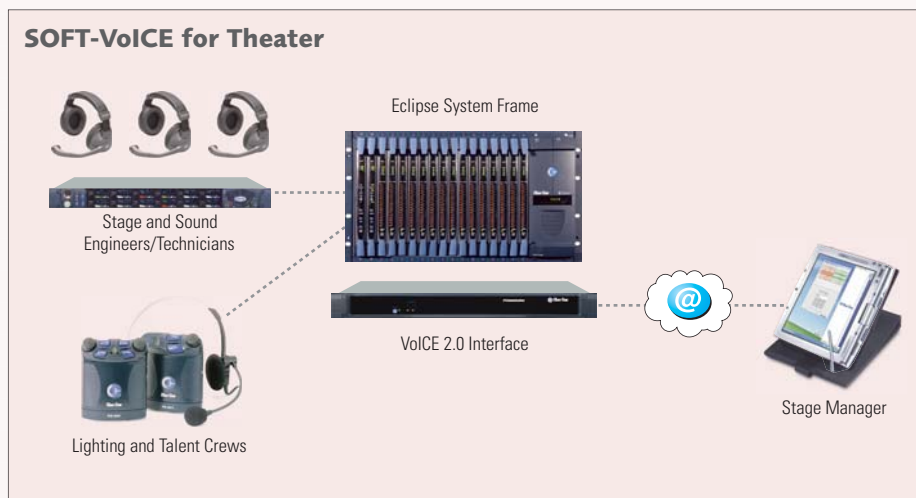
- A virtual Intercom panel on your PC desktop.
- Has access to the same matrix and networks resources as locally connected panels.
- Can be used anywhere in the field to get back to the central communication system over the LAN, WAN or Internet.
- Wireless PC compatible.
- No additional PC cards needed it only requires Windows XP compatible PC with standard audio hardware and headset.



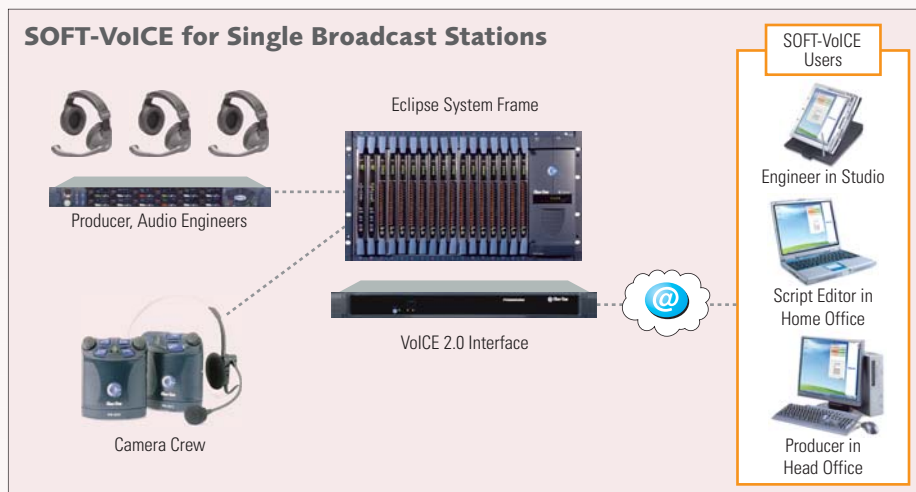
# IP Communications SOFT-VoICE



Broadcast production teams in multiple studios on different matrix systems can be networked together on the private communication network (VPN) using the VoICE 2.0 interface. Remote PC users can communicate with their intercom systems via the Eclipse rack-mount panels or on their SOFT-VoICE panels. The VoICE 2.0 interface links the SOFT-VoICE users through the IP network.



In a theatre environment, stage and sound engineers can control their communication using Eclipse panels which are hardwire connected to the matrix system frame. A stage manager who requires the freedom to roam can connect using a wireless handheld device.



Office bound Managers and on-line editors can communicate with any of the station intercom systems through their PC. The PC uses SOFT-VoICE to selectively connect to any of the stations intercom systems fitted with VoICE 2.0.

# The Complete Clear-Com Product Offerings

For more than 35 years, Clear-Com's party-line, digital matrix, wireless and IP-based intercom solutions have led the industry with high quality audio performance that meets mission-critical live production needs in a variety of settings.

## Party-Line Intercom System

**Clear-Com Encore™** offers the most comprehensive set of party-line intercom systems—from main stations to remote stations, wall-mounted speaker stations to multi-channel beltpacks, robust interfaces, headsets, announcer consoles, and more.

Based upon Clear-Com's unique, market-proven communication technology, Clear-Com Encore delivers superior sound quality and offers a streamlined, contemporary and user-intuitive design.



Clear-Com Encore™

## Wireless Intercom Solutions

**CellCom®/FreeSpeak®** – License-free digital transmission wireless intercom that provides wireless beltpack connections seamlessly in a large coverage area. CellCom®, trademarked in the US, operates in 1.921- 1.928 GHz range; FreeSpeak®, for all non-US markets, operates in 1.881- 1.916 GHz range.

### Tempest® 2400 & Tempest® 900

One- to four- channel digital wireless intercom systems that operate in either 2.4 GHz or the 900 MHz band. Tempest can operate up to 5 wireless beltpacks per base station and up to 75 users on 15 base stations. **WBS** – WBS-670 (single channel) or WBS-680 (two channel) analogue wireless

intercom systems operates in frequency bands between 518-740 MHz, ideal for crowded venues with potential frequency or environmental challenges.



Tempest 2400 & Tempest 900

CellCom®/FreeSpeak®

## Digital Matrix Intercom Technology

Clear-Com Eclipse digital matrix technology is a highly reliable, flexible and scalable foundation for user-to-user and group based multi-connections. The Eclipse product family provides a broad range of powerful matrix frames, user panels and interfaces to support basic to complex intercom requirements, including connectors to Clear-Com Party-line (using the CCI-22). **Eclipse PiCo** is a highly functional and compact 36-port matrix frame for small to medium size venues or studios.

Facilities with a more expanded communication need or are limited in rack space may consider the mid-size **Eclipse Median** that combines a 112-port frame with built-in interface slots. The largest matrix is the **Eclipse Omega**, providing a 240-port matrix frame

for large facilities with high quantity of users located in either one or multiple sites. Furthermore, Clear-Com offers the entry-level Easi-PiCo solution, a preconfigured matrix package which comes with a scaled-down 16-port Eclipse PiCo frame, interfaces, power supply and a choice of beltpacks and panel options.



Eclipse Omega



Eclipse PiCo



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