

# Technical Training



## IP Video Essentials

### Course Overview

This two day course covers the background theory and practical skills needed to specify, install and configure Exterity IP Video systems. The course begins with an introduction to the Exterity product range and an overview of the technologies behind IP Video, and also focuses on the resources available to help specify an Exterity system. The rest of the course is then dedicated to hands-on tutorials in setting up and configuring solutions based on Exterity products.

**By the end of the course, the participant should have the knowledge and skills to:**

- **Specify an Exterity System**
- **Install and configure AvediaServers, TVgateways, Encoders and Media Players**
- **Perform basic tasks with ArtioPortal Middleware and ArtioSign Digital Signage**
- **Perform basic troubleshooting on the Exterity system**

### Course Accreditation

The course concludes with a 20 question multiple choice exam. A certificate is awarded on successful completion of the exam, certifying that the trainee is trained in IP Video Systems Design, Installation and Support.

The course is accredited by AVIXA CTS, awarding 5.5 Renewal Units (RUs).

## Course Content

### Introduction to the Exterity Product Range

This session introduces participants to the products and features which make up Exterity's core IP Video solution, laying the ground work for the rest of the course.

### Digital Video Fundamentals and IP Multicast

These sessions cover the theory behind the broadcast of digital TV, and how these concepts extend to an IP Video solution. Topics covered include:

- Video/audio compression and codecs
- MPEG Transport Streams for digital TV broadcast
- IP Multicast for IP video distribution

### Designing an IP Video Headend + Sample Project Specification

This session explains how to specify an Exterity IP Video head end based on a particular set of customer requirements.

With all the background information in place, the participant is then given the specification for a small IP Video system and asked to prepare a list of Exterity equipment in order to satisfy the requirement.

### Managing the IP Video System

Here, trainees are introduced to the AvediaServer Director as a tool to manage the entire Exterity system. It focuses on the basic tasks needed to manage and troubleshoot the IP Video system.

- AvediaServer Director and Channel Monitor
- IP address configuration
- Firmware upgrade
- Export/import configuration
- Device log files

### Configuring Encoders

This hands-on session covers the setup and configuration of Exterity Encoders, and shows how to convert the output of an AV device to a stream on the IP network.

- Video input
- Channel announcements
- Encoding parameters
- Streaming parameters

### Configuring TVgateways

This session introduces participants to the setup and configuration of Exterity TVgateways. It shows how to convert live broadcast TV channels to streams on the IP network.

- Scan for channels from satellite and terrestrial sources
- Select, configure and stream channels

### Configuring Media Players

In this session, trainees learn how to set up and configure Exterity Media Players, in order to output an IP video stream on a TV screen.

- User channel selection via infra-red remote control
- Administrator channel selection via AvediaServer Director
- Channel filtering using Groups
- Work with Display Modes and web browser
- Set up to operate with ArtioPortal

### Configuring AvediaServer

This hands-on session covers the key features of the AvediaServer Producer and Creator Modules:

- ArtioPortal for Media Players and Desktop PC/Mac
- User Management
- Video on Demand and Scheduled Play
- Recording
- ArtioSign Digital Signage

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### Day 1 Agenda

9:30	Introduction to the Exterity Product Range
10:45	Break
11:00	Digital Video Fundamentals
11:15	IP Multicast
11:45	Head-end Design
12:15	Sample Project Specification
13:15	Lunch
14:15	Managing the IP Video System
16:00	Break
16:15	Configuring Encoders
17:30	Finish

### Day 2 Agenda

9:30	Configuring TVgateways
11:00	Break
11:15	Configuring Media Players
12:30	Tools and Troubleshooting
13:15	Lunch
14:15	Configuring AvediaServer – Part 1
15:15	Break
15:30	Configuring AvediaServer – Part 2
16:30	Roundup & Training Assessment
17:00	Finish