



**Everything's Digital**

***Digital Watchdog: Networking Essentials Outline***

***[ESA: CEU Class Feb 2013| Total Class Time: 2 hours + 10 minute break]***

**Outline:**

**Part I (1h15m)**

**We Are Here to HELP (20m)**

- Resources
- Objective
- Overview
- What is a network?
- Network categories
- Network categories cont'd
- A simple network
- A simple network cont'd
- Common IP Camera & Data Network

**Understanding IT Terminology (10m)**

- What is IT & IP?
- Bandwidth in Computer Networks

**Basic Terminology (30m)**

- Bandwidth/ Throughput
- VMAX Flexibility
- IP Camera Flexibility
- IP Address, Subnet Mask, and Gateway
- Network Segments & Subnets
- Subnets & Subnet Masks
- Segment
- Subnetting an IP Address
- IP Addresses
- DNS & DDNS
- DDNS
- Dynamic DNS Services
- Setting of IP Address
- Static of IP address
- Static setting of DW's DVR

- Static setting on DW's MEGApix
- Setting Up a Linksys Router
- Logging into the Router
- Logging into the Router cont'd
- Setting Up port forwarding
- Ports
- Common Port Numbers
- Setting Up Port Forwarding
- Applications & Gaming Tab
- Check What Ports Need to be Open
- Port Forwarding Device
- The DDNS Tab

### **Other Network Terminology (15m)**

- Firewall
- Firewall cont'd
- Linksys Router Setup
- Network interface card
- Network address/ identities
- Digital Watchdog IP Finder

### **Break (10m) | Part II (45m)**

#### **Let's get physical! (15m)**

- The Network infrastructure
- Network- Structured Cabling
- Ethernet Over Coax
- Ethernet Over Coax Cont'd
- Switch
- Router

#### **PoE - Power over Ethernet (30m)**

- What is Power over Ethernet?
- PoE Technology Overview
- Advantages of PoE
- Using PoE Switch (end-span)
- Using PoE Mid-Span Switch
- PoE Extender
- Single Port PoE
- Managed PoE
- Managed PoE Cont'd

- Servers, what are they?
- DHCP Server
- DHCP Server Cont'd
- DNS & DDNS Servers
- DNS Server
- SMTP Server
- FTP & Web Server

**THANK YOU**