



The e-Watch® cameras and encoders are very sophisticated network devices and thus require special attention. The e-Watch cameras and encoders have three dedicated processors to help them produce some of the most reliable and clear video available in real time. Most if not all the causes of video errors the user sees are caused by network misconfiguration.

This document will discuss some network recommendations to help create the best networking scenario for e-Watch cameras. These recommendations are directed to certified network technicians.

The e-Watch cameras and encoders send their video via Multicast, and their JPEG data via Unicast. Please keep this in mind when working on the network for these devices.

1. Use Multicast compliant switches to prevent Multicast from propagating across the network.
2. Provide an independent VLAN for the e-Watch devices, servers, and stations. This will reduce the network traffic, and create a more secure environment for the e-Watch system.
3. Enable IGMP / CGMP Dense Mode, Immediate Leave on switches and routers.
4. Disable Spanning Tree Protocol on switches or enable Port Fast for each port used for an e-Watch device. Spanning Tree Protocol will cause an e-Watch camera or encoder to wait excessively before acquiring an IP address.

For more information please see the following or consult your networking hardware's manufacturer.

- **VLAN** http://www.cisco.com/en/US/products/hw/switches/ps708/products_configuration_guide_chapter09186a008019f045.html#wp1020650
- **IGMP** http://www.cisco.com/en/US/tech/tk828/tk363/tk350/tech_protocol_home.html
- **CGMP** http://www.cisco.com/en/US/tech/tk828/tk363/tk105/tech_protocol_home.html
- **Spanning Tree** http://www.cisco.com/en/US/tech/tk389/tk621/tech_protocol_family_home.html

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