




MicroRAPTOR® Training

RAPTOR iMR320 Ethernet Essentials

 **Course Code:** TR-102

 **Course Length:** 4 Days

 **Who This Course Is Designed For:** OT Professionals who administer and troubleshoot Layer 2 & Layer 3 Ethernet Networks

 **Course Delivery:** iS5Com Training Facility, Onsite at Customer Location, or Instructor Led Remote Online

 **Course Description:**

Learn fundamental networking protocols on the RAPTOR series platform along with labs designed for applying networking fundamentals in real-life mission critical applications. This course is 50% theory and 50% hands-on lab exercises targeted for Network Administrators, IT/OT Personnel and Technical Managers.

What you will learn:

Critical Infrastructure Networks Architecture & Design

- Why OT Networks are different from IT networks
- Best design practices in OT networks

The Basics (MAC/IP/Subnet/Unicast/Multicast/Broadcast)

- Ethernet
- MAC address format
- GOOSE Messages

Layer 2 Switching

- Virtual Local Area Networks (VLANs)
- Rapid Spanning Tree Protocol (RSTP)
- Multiple Spanning Tree Protocol (MSTP)
- Quality of Service (QoS)

Layer 3 Routing

- Static Routing
- Open Shortest Path First protocol (OSPF)
- Virtual Router Redundancy Protocol (VRRP)

Network Timing

- Simple Network Time Protocol (SNTP)
- Precision Time Protocol (PTP)

Device Administration

- How to administer the device through console, ssh, Web GUI, and SNMP