Cisco Internetwork Troubleshooting (CIT) Course Development Project Summary

The challenge

A major online education provider needed to develop the new Cisco Internetwork Troubleshooting (CIT) course for Cisco Systems. Although this company had an internal course developer writing the content, they needed in-depth technical support for the course development process. The technical expertise needed to be integrated throughout the entire process, from defining required skills for the content outline, developing and reviewing the design document, creating challenging lab exercises that supported the learning objectives, to reviewing the course content.

The Chesapeake NetCraftsmen solution

We were selected for our expert technical knowledge of Cisco hardware and software as well our company's proven track record in course and lab development. Working with this online education provider, we defined the tasks and deliverables that would integrate into the course development process:

- Content Outline – Included mapping all relevant Learning Objectives to the Cisco Internetwork Troubleshooting course using the job task analysis information provided by Cisco Systems.

- Design Document Development Assistance and Lab Topology – Worked with the online education Content Developer to outline all relevant Lessons, Topics, Performance Outcomes, Knowledge Needed, Learning Objectives, Content Type, Performance Level, Instructional Methods and Assessment Items. We also developed a complete equipment list and lab topology for the course.

- Assessment Development – We developed all the case studies and labs to support the learning objectives in the course design document, including the lab set-up instructions and descriptions formatted to templates provided by Cisco.

- Module Development Assistance – We assisted the online education provider in the development of content for the all modules, in reviewing the content written by the course developer, and approving the technical accuracy of the prototype module.

- Alpha Set-Up and Knowledge Transfer – We met with the Cisco Systems TEC team to set up all equipment required for the Alpha Event. We provided a transfer of knowledge to Cisco Support

personnel of the lab infrastructure including detailed wiring diagrams as well as the starting and ending configuration files for all the devices. The deliverable for this task was a completed classroom lab for use during the Alpha Event.

- Alpha Event and Post Alpha Development – We assisted in the alpha course delivery to Cisco and its representatives and led students through the labs and assessments. After the Alpha, we performed additional revisions to the lab portion of the Student Guide and assisted the online education provider in verifying and integrating the technical aspects of course components.

We also completed the lab portion of the Course Administration Guide that detailed starting configurations and set-up requirements for each of the 28 devices for the labs. To improve upon the basic Course Administration Guide, we also developed complete troubleshooting logs for each of the labs as an aid to the course instructor, along with specific commands per device required to resolve issues. We also developed examples for each module to help better illustrate the course content in a real-world context, which included creating a base scenario describing the symptoms of the problem, a troubleshooting section illustrating how to isolate the issues, and a conclusion that showed how to correct the issues and verify problem resolution.

The results

Throughout the process, we worked as an integrated team member, sharing recommendations to optimize the course. We met the customer's schedule, and produced challenging labs for senior network professionals illustrating troubleshooting skills and concepts on Cisco routers and switches.