

# Net.Campus Certified Allied Telesis Expert / QoS Enterprise Solution

Certified Allied Telesis  
Expert (CAE)

Certified Allied Telesis  
Professional (CAP)

Certified Allied Telesis  
Technician (CAT)

## Introduction

The Quality of Service (QoS) Solution training course is designed to teach attendees how to design, install and perform advanced Quality of Service configuration on the Layer 2 and Layer 3 core switches. The participants will have the opportunity to practice in a lab environment.

<b>Duration</b>	Two days
<b>Delivery format</b>	Classroom based with hands on practice
<b>Certification</b>	CAE-QoS/ENT
	Attendees are required to pass a Web exam
	Validity for two years
<b>Intended audience</b>	Engineers who wish to design, configure and maintain Allied Telesis devices and solutions with a focus on Quality of Service topics
<b>Prerequisites</b>	CAP/ENT
<b>Key products / technology</b>	AlliedWare Plus, x-Series switches

## Prerequisites

Candidates must be certified to the Allied Telesis Professional / Enterprise Solution (CAP/ENT) level.

## Objectives

After successful completion candidates will be able to:

- ▶ Design and configure Layer 2 and Layer 3 Allied Telesis switches to the purpose of providing the right prioritization and allocating the necessary bandwidth to the different categories of traffic. The traffic categorization is deriving from the special needs of the user applications served by the underlying configured network.

## Course Outline

### QoS

Introduction to Quality of Service (QoS) as the ability to provide different priority to different applications, users, or data flows, or to guarantee a certain level of data performance. Descriptions of the traffic classification, prioritization, queuing and bandwidth management mechanisms and protocols. Why we need QoS technologies. What are the most QoS sensitive applications and what are the parameters that affect their efficiency. Designing methods of end-to-end QoS policies.

### Classification and Marking

Presentation and practice on the most popular, standard marking-prioritization mechanisms of Layer 2 (IEEE 802.1p / VLAN tag priority) and Layer 3 (DiffServ / DSCP in ToS field) levels. How these mechanisms inform the switches which Class-of-Service (CoS) queue should be used. Introduction, analysis and hands on practice on the traffic classification mechanisms like classifiers/access lists.

### Scheduling and Queuing

Introduction to the scheduling processes that determine the order in which queues are serviced. Details of the queuing mechanisms and how they enable the switch to differentiate the treatment of different traffic types. Analysis of the strict priority and Weighted Round Robin (WRR) queuing methods.

### Policing and Shaping

Presentation and practice on the process of reducing a stream of data to a predetermined rate or level. Explanation of bandwidth limiting mechanisms for single and twin rate three color metering and how the RED curve queue management algorithm helps in the arrangement of accessing the egress queues.

## TECHNICAL CERTIFICATION

## Learn More

For more information or further assistance please contact your local sales office.

[alliedtelesis.com/support](http://alliedtelesis.com/support)