



PACKETEER®

Packeteer Expert Certification Guide

Packeteer has developed the following *Packeteer Expert Certification Guide* to assist you as you prepare for the Packeteer Certified Expert Exam. The test questions on the certification exam are based on the learning objectives shown in the left column of the certification guide. The training and reference materials that correspond to those learning objectives are located in the columns to the right.

Packeteer has cross-referenced the learning objectives with the following reference documentation:

- Packeteer Specialist course materials
- Packeteer Advanced Traffic Analysis & Troubleshooting course materials
- Packeteer's online PacketGuide
<http://support.packeteer.com/documentation/packetguide/8.0/index.htm>
- Packeteer's Getting Started documentation
http://support.packeteer.com/documentation/packetguide/8.0/documents/Getting_Started_Guide_v80.pdf

This cross-referencing provides you with a quick way to locate and review material as you prepare for the Packeteer Certified Expert Exam.

Required Practical Experience

In addition to successfully completing both the Packeteer Specialist course and the Packeteer Advanced Traffic Analysis & Troubleshooting course, it is recommended that learners practice using the advanced class, policy, partition and reporting features to optimize network and application performance at an advanced level. This includes practicing the following:

- Properly configuring different types of traffic trees
- Using PacketShaper tools to identify network problems and determine if PacketShaper can solve those problems
- Configuring PacketShaper to fix network problems.

Cross-Referenced Learning Objectives

The table below provides a listing of topics covered in the Exam and related references to Packeteer Specialist course materials, Packeteer Advanced Traffic Analysis & Troubleshooting course materials, and additional Packeteer technical documentation.

Packeteer Expert Certification Guide (V8)				
For Packeteer Use Only	Learning Objective	Packeteer Specialist Course Material	Advanced Traffic Analysis & Troubleshooting Course Material	Other References
1.1	Apply PacketShaper key concepts		<ul style="list-style-type: none"> LAB 1 - Review of Key Concepts 	
1.1.a	Access PacketShaper	<ul style="list-style-type: none"> Accessing PacketShaper, pgs.39-46 	<ul style="list-style-type: none"> Initial Setup, pg.29 Key Concepts Related to Accessing PacketShaper, pgs. A-2 – A-3 	<ul style="list-style-type: none"> Getting Started Guide, Chapter 5: Accessing the PacketShaper PacketGuide: Access the CLI Using Remote Login PacketGuide: Access the CLI Using a Console Connection
1.1.b	Configure PacketShaper	<ul style="list-style-type: none"> Using PacketShaper Guided Setup to Configure Initial Settings, pgs.46-60 	<ul style="list-style-type: none"> Initial Setup, pg.29 Key Concepts Related to Configuring PacketShaper, pgs.A-6 – A-8 	<ul style="list-style-type: none"> PacketGuide: Reconfigure Basic Settings Getting Started Guide, Chapter 5: Accessing PacketWise Guided Setup With a Browser
1.1.c	Explain PacketShaper network traffic visibility	<ul style="list-style-type: none"> MODULE 4 - Gaining Visibility into Network and Application Behavior 	<ul style="list-style-type: none"> Key Concepts Related to PacketShaper Network Traffic Visibility, pgs.A-11 – A-14 Appendix B – Making Reports Accessible 	<ul style="list-style-type: none"> PacketGuide: Graph and Report Tasks PacketGuide: Customer Portal Tasks
1.1.d	Explain PacketShaper control of network traffic	<ul style="list-style-type: none"> MODULE 5 - Controlling Network Traffic 	<ul style="list-style-type: none"> Key Concepts Related to PacketShaper Control of Network Traffic, pgs.A-15 – A-16 	<ul style="list-style-type: none"> PacketGuide: Control Strategy Overview
1.1.e	Explain PacketShaper network application acceleration		<ul style="list-style-type: none"> Key Concepts Related to PacketShaper Network Application Acceleration, pgs.A-17 – A-18 	<ul style="list-style-type: none"> PacketGuide: Xpress Overview Getting Started Guide, Chapter 9: Getting Started with Xpress Compression and Acceleration

1.1.f	Configure PacketShaper secure access		<ul style="list-style-type: none"> Configuring PacketShaper Secure Access, pg.31 Access Security Settings, pgs.A-4 – A-5 	<ul style="list-style-type: none"> PacketGuide: Specify Security Settings PacketGuide: Add Security to PacketWise
1.1.g	Backup/restore PacketShaper configuration		<ul style="list-style-type: none"> Backing Up/ Restoring PacketShaper Configuration, pgs.32-34 Backing-up PacketShaper or PacketSeeker Configuration, pg.A-10 	<ul style="list-style-type: none"> PacketGuide: Back Up a Configuration PacketGuide: Restore a Configuration
1.1.h	Classify network application traffic	<ul style="list-style-type: none"> MODULE 3 - Classifying Network Traffic 	<ul style="list-style-type: none"> Classifying Network Application Traffic, pgs.35-38 	<ul style="list-style-type: none"> PacketGuide: Classify Network Traffic
1.1.i	Establish network application performance baseline	<ul style="list-style-type: none"> Establishing Network Application Performance Baseline, pgs. 71-81 	<ul style="list-style-type: none"> Establishing Network Application Performance Baseline, pg.39 	<ul style="list-style-type: none"> PacketGuide: Graph and Report Tasks PacketGuide: Preconfigured Graphs
1.1.j	Control network traffic	<ul style="list-style-type: none"> Controlling Network Application Traffic With Partitions, pgs.144-152 Controlling Network Application Traffic With Policies, pgs.153-168 	<ul style="list-style-type: none"> Key Concepts Related to PacketShaper Control of Network Traffic, pgs.A-15 – A-16 	<ul style="list-style-type: none"> PacketGuide: Control Strategy Overview
1.1.k	Compress/accelerate network traffic	<ul style="list-style-type: none"> MODULE 6 - Compressing Network Traffic 	<ul style="list-style-type: none"> Accelerating Network Traffic, pgs.40-41 	<ul style="list-style-type: none"> PacketGuide: Xpress Overview
1.2	Identify problem investigation methods	<ul style="list-style-type: none"> MODULE 8 - Troubleshooting Network Traffic Problems 	<ul style="list-style-type: none"> LAB 3 - Problem Investigation Strategies 	
1.2.a	Assess WAN link performance	<ul style="list-style-type: none"> Producing Network Summary Reports, pg.114 	<ul style="list-style-type: none"> Creating a WAN Link Performance Report, pgs.65-66 	<ul style="list-style-type: none"> PacketGuide: Analyze your Link's Behavior
1.2.b	Assess application performance	<ul style="list-style-type: none"> Analyzing Network Application Performance Using PacketShaper, pgs.106-111 	<ul style="list-style-type: none"> Creating an Application Quality of Service Report, pgs.67-68 	<ul style="list-style-type: none"> PacketGuide: Analyze an Application's Behavior
1.2.c	Diagnose abnormal traffic patterns	<ul style="list-style-type: none"> MODULE 4 - Gaining Visibility into Network and Application Behavior 	<ul style="list-style-type: none"> Collecting Traffic Diagnostic Information, pg.69 Packeteer Troubleshooting Guide, pgs.4-6 	
1.2.d	Assess PacketShaper health problems		<ul style="list-style-type: none"> Collecting PacketShaper Diagnostic Information, pg.70 	

2.1	Use PacketShaper advanced visibility, control, compression, & acceleration			
2.1.a	Identify/ control network abusers	<ul style="list-style-type: none"> Identifying Network Applications that Undermine Performance, pg.108 Determining Worst Performing Network Clients/Servers, pgs.323-325 Selecting Large, Bandwidth-Hungry Unimportant Traffic Controls, pg.307 	<ul style="list-style-type: none"> Packeteer Troubleshooting Guide, pgs.5-7 	<ul style="list-style-type: none"> PacketGuide: Quarantine Bandwidth Abusers
2.1.b	Identify/ control infected users	<ul style="list-style-type: none"> Disrupting Virus Attacks, pg A-20 	<ul style="list-style-type: none"> Identifying & Controlling Infected Users, pgs.47-50 Packeteer Troubleshooting Guide, pg.3 	<ul style="list-style-type: none"> PacketGuide: Disrupt Virus Attacks
2.1.c	Enhance MPLS Quality of Service	<ul style="list-style-type: none"> Classifying Network Traffic by MPLS Tag, pgs.273-276 	<ul style="list-style-type: none"> Enhancing & Monitoring MPLS Service Levels, pgs.51-55 	<ul style="list-style-type: none"> PacketGuide: Enhance MPLS QoS
2.2	Identify how to maintain service levels	<ul style="list-style-type: none"> Creating SLA for Critical PacketShaper Classes, pgs.325-328 		<ul style="list-style-type: none"> PacketGuide: Set Thresholds
2.2.a	Limit server attacks	<ul style="list-style-type: none"> Detecting/Limiting Rate to and from One Host, pgs. A-16 – A-18 	<ul style="list-style-type: none"> Limiting Server Attacks, pgs.159-160 Packeteer Troubleshooting Guide, pgs.8-9 	<ul style="list-style-type: none"> PacketGuide: Detect and Limit DoS Attacks
2.2.b	Contain aggressive hosts	<ul style="list-style-type: none"> Selecting Large, Bandwidth-Hungry Unimportant Traffic Controls, pg.307 Selecting Large, Bandwidth-Hungry Interactive Time-Sensitive Traffic Controls, pg.308 	<ul style="list-style-type: none"> Containing Aggressive Hosts, pgs.161-162 Packeteer Troubleshooting Guide, pgs.1-2 	<ul style="list-style-type: none"> PacketGuide: Quarantine Bandwidth Abusers
2.2.c	Maximize use of available bandwidth	<ul style="list-style-type: none"> MODULE 5 - Controlling Network Traffic MODULE 6 - Compressing Network Traffic 	<ul style="list-style-type: none"> Maximizing Use of Available Bandwidth, pgs.163-164 	<ul style="list-style-type: none"> PacketGuide: Protect Critical Application Performance
2.2d	Classify elusive traffic	<ul style="list-style-type: none"> Planning PacketShaper Multi-Protocol and Complex Classification Strategy, pgs.258-265 	<ul style="list-style-type: none"> Packeteer Troubleshooting Guide, pg.5 	<ul style="list-style-type: none"> PacketGuide: Identify Mysterious Traffic

2.2e	Troubleshooting PacketShaper software key problems			
3.1	Identify diagnostic & troubleshooting tools		<ul style="list-style-type: none"> • Lab 4 – Using PacketShaper Diagnostic & Troubleshooting Tools • Appendix C – Hardware & Software Troubleshooting Tips 	
3.1.a	Use Advanced PacketShaper Commands		<ul style="list-style-type: none"> • Packeteer Troubleshooting Guide 	<ul style="list-style-type: none"> • PacketGuide: Command-Line Interface (CLI) Reference
3.1.b	Use automatic monitoring tools		<ul style="list-style-type: none"> • Using Automatic Monitoring Tools, pgs.76-77 	<ul style="list-style-type: none"> • PacketGuide: Adaptive Response Overview
3.1.c	Capture/ examine network traffic sample		<ul style="list-style-type: none"> • Capturing/Examining a Network Traffic Sample, pgs.78-79 	<ul style="list-style-type: none"> • PacketGuide: Sniff Without a Sniffer
3.1.d	Capture/ examine PacketShaper diagnostic information		<ul style="list-style-type: none"> • Capturing/Examining PacketShaper Diagnostic Information, pgs.80-83 	<ul style="list-style-type: none"> • PacketGuide: Verify PacketWise Health
4.1	Identify how to troubleshoot traffic flow problems	<ul style="list-style-type: none"> • MODULE 8 - Troubleshooting Network Traffic Problems 	<ul style="list-style-type: none"> • Lab 5 – Troubleshooting Traffic Flow Problems 	
4.1.a	Identify/ control pest traffic	<ul style="list-style-type: none"> • Selecting Large, Bandwidth-Hungry Unimportant Traffic Controls, pg.307 • Selecting Unimportant, Unsanctioned, Non-Blocked Traffic Controls, pg.309 • Selecting Prohibited, Unsanctioned Traffic Controls, pg.309 	<ul style="list-style-type: none"> • Packeteer Troubleshooting Guide, pgs.1-3 	<ul style="list-style-type: none"> • PacketGuide: Policy/Partition Guidelines • PacketGuide: Block Unwanted Traffic
4.1.b	Manage important and aggressive applications	<ul style="list-style-type: none"> • Implementing Network Traffic Performance Controls, pgs.303-317 	<ul style="list-style-type: none"> • Managing Important & Aggressive Applications, pgs.93-97 	<ul style="list-style-type: none"> • PacketGuide: Policy/Partition Guidelines
4.1.c	Identify/ fix classification errors	<ul style="list-style-type: none"> • Troubleshooting Common Problems with PacketShaper Classes, pgs.238-240 	<ul style="list-style-type: none"> • Identifying & Fixing Classification Errors, pg.98 • Identifying & Fixing Common Errors in Policy & Partition Misconfigurations, pg.99 	<ul style="list-style-type: none"> • PacketGuide: Policy/Partition Guidelines • PacketGuide: Verify Traffic Classes
4.1.d	Identify/ fix policy and partition misconfigurations	<ul style="list-style-type: none"> • Troubleshooting Common Problems with PacketShaper Policies, pgs.244- 	<ul style="list-style-type: none"> • Packeteer Troubleshooting Guide, pg.4 	<ul style="list-style-type: none"> • PacketGuide: Policy/Partition Guidelines • PacketGuide: View

		<ul style="list-style-type: none"> 246 Troubleshooting Common Problems with PacketShaper Partitions, pgs.241-243 		Partition Information
4.1.e	Identify/ fix acceleration misconfigurations		<ul style="list-style-type: none"> Identifying & Fixing Xpress Misconfigurations, pg.100 	<ul style="list-style-type: none"> PacketGuide: Tunnel State Descriptions
4.2	Identify how to troubleshoot PacketShaper configuration & corruption problems		<ul style="list-style-type: none"> Lab 6 – Troubleshooting PacketShaper Configuration & Corruption Problems Appendix C – Hardware & Software Troubleshooting Tips Packeteer Troubleshooting Guide, pgs.16-17 	
4.2.a	Describe PacketShaper corruption problems		<ul style="list-style-type: none"> Packeteer Troubleshooting Guide, pg.12 	
4.2.b	Backup/ Restore Configuration		<ul style="list-style-type: none"> Backing Up & Restoring Configurations, pgs.108-109 	<ul style="list-style-type: none"> PacketGuide: Back Up a Configuration PacketGuide: Restore a Configuration
4.2.c	Troubleshoot corrupt configuration		<ul style="list-style-type: none"> Troubleshooting Corruption Problems, pg.110 	<ul style="list-style-type: none"> PacketGuide: Restore a Configuration
4.2.d	Troubleshoot ME data corruption	<ul style="list-style-type: none"> Resetting PacketShaper Measurement Engine, pg.227 	<ul style="list-style-type: none"> Troubleshooting Reporting Data Problems, pgs.111-113 	<ul style="list-style-type: none"> PacketGuide: Restore Measurement Data PacketGuide: Reset Measurement Data
4.3	Identify how to troubleshoot PacketShaper hardware & software problems		<ul style="list-style-type: none"> Lab 7 – Troubleshooting PacketShaper Hardware & Software Problems 	
4.3.a	Troubleshoot software image and plug-in problems	<ul style="list-style-type: none"> Managing Plug-Ins, pg.221 	<ul style="list-style-type: none"> Troubleshooting Software Image & Plug-in Problems, pgs.122-124 	<ul style="list-style-type: none"> PacketGuide: image PacketGuide: Distribute Plug-in Files PacketGuide: Remove Plug-in Files
4.3.b	Troubleshoot PacketShaper booting/ rebooting problems	<ul style="list-style-type: none"> Resetting/ Restarting PacketShaper, pg.229 	<ul style="list-style-type: none"> Troubleshooting PacketShaper Rebooting Problems, pgs.125-127 Packeteer Troubleshooting Guide, pg.12 	<ul style="list-style-type: none"> PacketGuide: Safe Mode

4.3.c	Troubleshoot hardware failures		<ul style="list-style-type: none"> • Troubleshooting Hardware Failures, pg.128 • Packeteer Troubleshooting Guide, pgs.12-14 	
4.3.d	Troubleshoot disk management problems		<ul style="list-style-type: none"> • Testing & Recovering PacketShaper Hard Drive & Flash Drive, pgs.129-132 	
4.4	Identify how to troubleshoot PacketShaper performance & access problems		<ul style="list-style-type: none"> • Lab 8 – Troubleshooting PacketShaper Performance & Access Problems 	
4.4.a	Troubleshoot slow and unresponsive WUI access		<ul style="list-style-type: none"> • Troubleshooting Slow & Unresponsive WUI Access, pgs.137-139 	
4.4.b	Troubleshoot report data problems		<ul style="list-style-type: none"> • Troubleshooting Report Data Retrieval Failures, pgs.140-141 	<ul style="list-style-type: none"> • PacketGuide: Back Up Measurement Data • PacketGuide: Restore Measurement Data • PacketGuide: Reset Measurement Data
4.4.c	Recover access to an unreachable PacketShaper		<ul style="list-style-type: none"> • Recovering Access to an Unreachable PacketShaper, pgs.142-143 	
4.5	Identify PacketShaper capacities & limits		<ul style="list-style-type: none"> • Lab 9 – Understanding PacketShaper Capacities & Limits • Packeteer Troubleshooting Guide, pgs.10-11 	<ul style="list-style-type: none"> • PacketGuide: PacketShaper Configuration Limits
4.5.a	Troubleshoot configuration overload		<ul style="list-style-type: none"> • Recognizing When Configuration Exceeds Capacity of Unit, pgs.149-150 	<ul style="list-style-type: none"> • PacketGuide: PacketShaper Configuration Limits
4.5.b	Troubleshoot traffic overload	<ul style="list-style-type: none"> • Resetting PacketShaper Class Tree, pg.226 	<ul style="list-style-type: none"> • Recognizing Symptoms of an Overloaded PacketShaper, pgs.151-152 	