

Blue Coat PacketShaper Professional

(BCPSP) v 3.3.1

Chapter Summaries (May 2011)

Chapter 1: PacketShaper System Architecture

This chapter is the first one in the BCPSP course and talks at a very high level the system architecture details of the Blue Coat PacketShaper. This chapter provides a high-level overview of core PacketWise technologies, specifically those designed to improve the Internet and WAN user experience. Also described are the processes behind how network traffic passes through the PacketShaper and the fundamentals of the PacketShaper storage and file system. PacketShaper's hardware and system limitations and how they can affect performance are also dealt in the later sections of the chapter.

Chapter 2: PacketShaper Deployment

Deploying the PacketShaper correctly is the most important choice that a user makes — second only to deciding to buy Blue Coat products. Different deployments allow you to implement different features and define the overall security option for a network. This chapter discusses various methods of how the Blue Coat® PacketShaper® can be deployed in a network environment. PacketShaper is a complete performance solution, incorporating monitoring features and control features to correct and prevent problems. In this chapter, inline and non-inline deployment scenarios are described in detail.

Chapter 3: Advanced Classification

This chapter describes classification and other associated processes in a more detailed manner. Traffic inspection is the preliminary step before traffic discovery and classification and can help to identify applications that are mission-critical and ones that are mysterious in nature. Other topics described in this chapter include creating traffic trees to classify traffic, creating traffic classes through the CLI and using the CLI command `synthetic add` to generate synthetic transactions at predefined intervals to analyze real life traffic scenarios.

Chapter 4: URL Categorization

WebPulse is an integral part of Blue Coat's multi layered defense system. This chapter discusses the cloud-computing aspects of WebPulse; following that with a discussion of the technologies that Blue Coat uses as part of WebPulse, including dynamic categorization and WebFilter. URL Categorization feature in the PacketShaper is made possible using this capability of the WebPulse service.

Chapter 5: Traffic Tree Management

Application discovery and the creation of a corresponding traffic tree are prerequisites for understanding application behavior and controlling its performance. Traffic trees are very flexible in that you can customize your tree's classes using many types of criteria including application, location, protocol, host lists, addresses, and many other strategies. This chapter describes how traffic tree helps to identify, manage, and optimize bandwidth allocation in your specific network environment. Various traffic tree designs supported by PacketShaper are also discussed.

Chapter 6: Advanced Bandwidth Management

This chapter is an advanced version of the *Partitions* chapter in the BCPSA course and provides details on how to effectively use policies and partitions to manage bandwidth issues in your deployments. Traffic flowing through your network can be characterized based on its behavior with respect to the following — importance, time sensitivity, size and jitter. Once you have determined how to characterize the traffic, it is easy to manage them by applying either partitions or policies or a combination of both.

Chapter 7: PacketShaper Reporting Tools

Blue Coat® PacketShaper® measures many characteristics of passing traffic and stores associated metrics onboard for up to two months, providing the capability to create pre configured or custom reports. Reports are accessible through PacketShaper's web UI. This chapter walks you through the various tools available from Blue Coat to manipulate various data collected by the PacketShaper.

Chapter 8: Advanced Reporting

This chapter focuses on some basic CLI commands that can be used to identify any simple performance issues before contacting Blue Coat Technical Support.

Chapter 9: PacketShaper Xpress

This chapter covers the PacketShaper's Xpress feature for compression of network traffic. Xpress will compress traffic to essentially create extra space for other traffic passing through the link. PacketShaper achieves this by creating special tunnels between two appliances. This is one of PacketShaper's most powerful and useful features — and intelligent, as it automatically checks traffic to see if compression will create savings. If traffic is already compressed, or if it does not create link savings, Xpress will not be deployed.

Chapter 10: Understanding Adaptive Response

In today's complex enterprise environment, hardware and network problems are major causes of performance issues. It becomes very difficult to reduce the impact from such issues even when once has monitoring capabilities running 24/7 throughout your network. One of the built-in solutions that come with the Blue Coat® PacketShaper® product line is Adaptive Response. This feature makes it easier to monitor your network by enabling an individual PacketShaper to monitor unit, application, and network health, hosts, traffic classes, links, and partitions. A color-coded summary that lets you identify potential problems at a glance.

Chapter 11: Network Management and Monitoring

This chapter covers authentication and event notification with PacketShaper. There are three main methods for authentication (local, RADIUS, TACACS+). Each is covered briefly in this chapter, but the focus for this course

has been on the local account. This chapter also focuses on Event Notification, which can be used to report on failed login attempts, among other things. PacketWise's support for SNMP using SNMP agent and PacketShaper enterprise MIB is also briefly covered.

Chapter 12: Failover and High Availability

This chapter focuses on failover — PacketShaper's ability to monitor the network's link speed and compensate for a failed router and lower speeds — and high availability — a deployment that is meant to ensure 100% availability for critical applications. This chapter also goes into more detail about the Direct Standby deployment introduced in the BCPSA course.

Chapter 13: Blue Coat Intelligence Center

Blue Coat® IntelligenceCenter® is a central management solution designed specifically for use with Blue Coat PacketShaper® and PolicyCenter. Using its features, you can obtain enterprise-wide visibility of your network and the traffic flowing through it, get a centralized location for application performance reporting, and access all your compatible appliances and databases through one location.

Chapter 14: Introduction to Policy Center

As your network gets larger and you deploy more Blue Coat® PacketShaper® appliances, it becomes more difficult to manage configuration changes. That is where PolicyCenter comes in — PolicyCenter is a software management system that maintains multiple PacketShaper configurations on a single Windows 2000 or Windows 2003 server. Because the configurations of all the units on the network are stored in a single place, they can be managed very efficiently.