Edge Cache

Exinda ExOS Version 6.3

Table of Contents

Part I Introduction 4
1 Using this Guide 4
2 Further Reading 5
Part II Overview 7
Part III Configuration 9
1 Optimizer and Policy Settings 9
2 Edge Cache Settings 10
Peering 11
Part IV Viewing Statistics 13

Part

1 Introduction

Edge Cache

Exinda Firmware Version: 6.3

1.1 Using this Guide

Throughout the manual the following text styles are used to highlight important points:

- Useful features, hints and important issues are called "notes" and they are identified in a light blue background.

Note: This is a note.

- Practical examples are presented throughout the manual for deeper understanding of specific concepts. These are called "examples" and are identified with a light green background.

This is an example.

- Warnings that can cause damage to the device are included when necessary. These are indicated by the word "caution" and are highlighted in yellow.

Caution: This is a caution.

1.2 Further Reading

In addition to this How to Guide, the following relevant user documentation is available and should be read in conjunction with this guide:

- Exinda User Manual
- Exinda Topologies Guide

Please visit http://www.exinda.com for more information.

Part II

2 Overview

Edge Cache provides acceleration of HTTP based applications by caching objects in memory and on disk. Edge Cache acceleration is single-sided - acceleration requires only one Exinda appliance.

There are 2 important requirements in order for Edge Cache to function correctly:

1. A gateway is required – this must be a gateway (firewall or internet router) on the WAN side of the Exinda appliance.

2. A valid DNS server is required.

Edge Cache is a fully transparent solution, however, these requirements must be met in order for Edge Cache to function correctly.

Note: The Edge Cache Acceleration feature is a separately licensed component. You can check if your license supports this feature by navigating to System | Setup | License.

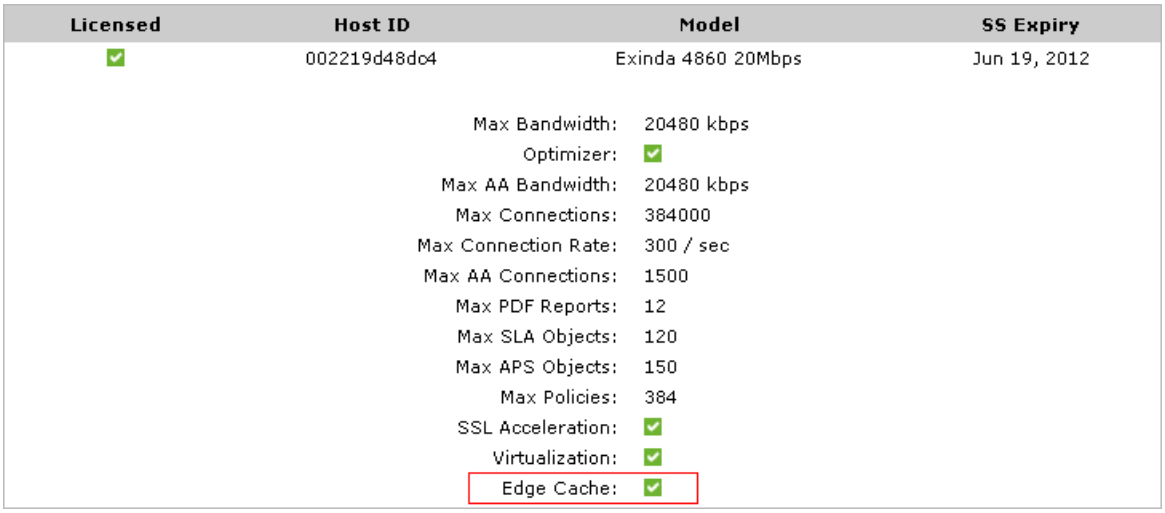
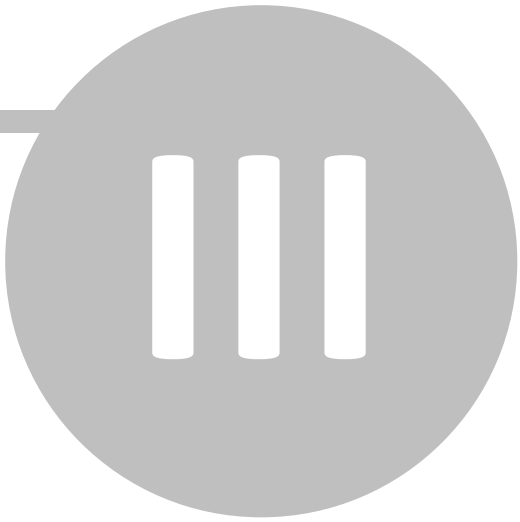


Figure 1: License with Edge Cache enabled.

Part



3 Configuration

Optimizer and Policy settings.

Edge Cache Settings settings.

3.1 Optimizer and Policy Settings

Edge Cache works on outbound, HTTP based conversations. To enable Edge Cache, create a policy with an application or application group that will capture the HTTP application traffic that you wish to cache.

Navigate to Optimizer | Policies. Set the required bandwidth parameters, enable Acceleration and choose Edge Cache from the Acceleration options dropdown. Select HTTP from the application dropdown or any other HTTP based custom application.

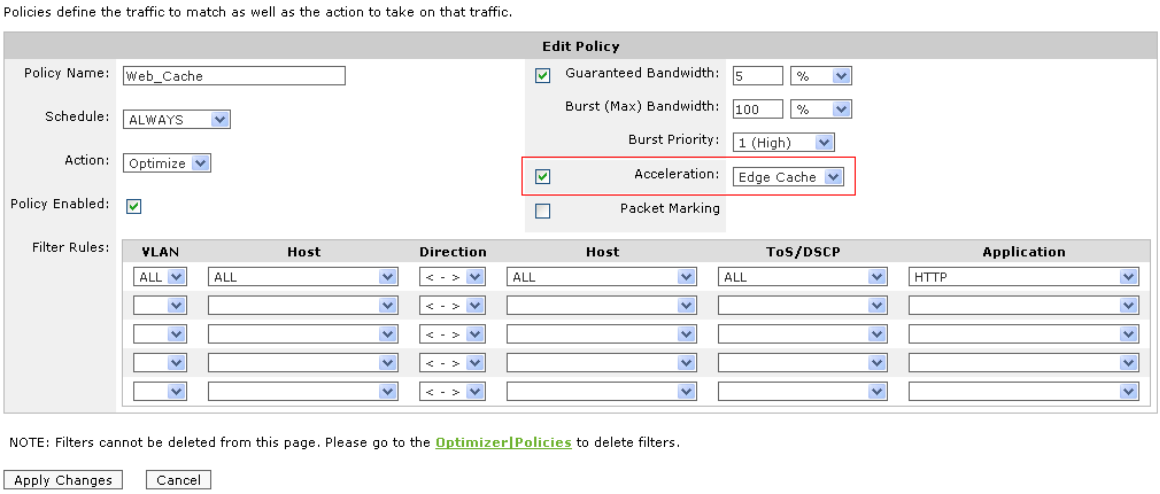


Figure 2: Edge Cache Policy

On the Optimizer page, add the policy created above to an **outbound** Virtual Circuit. In the example below, Web_Cache is an Edge Cache enabled policy added to a Virtual Circuit for Internet outbound traffic.

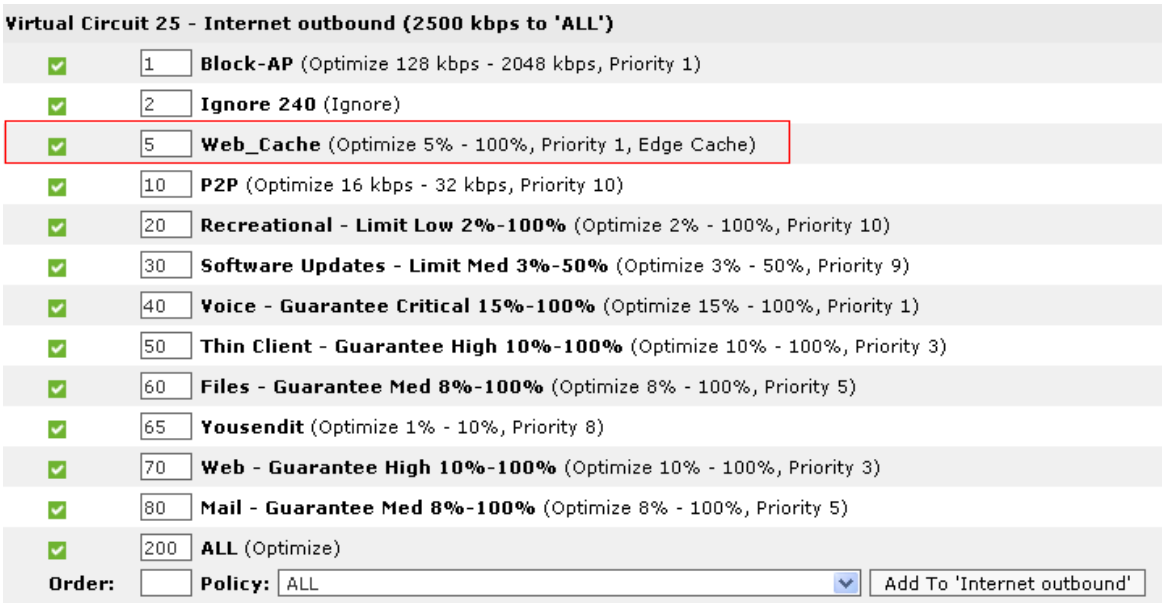


Figure 3: Outbound Virtual Circuit including an Edge Cache enabled Policy

3.2 Edge Cache Settings

To configure Edge Cache settings, navigate to System | Acceleration | Edge Cache

Edge Cache will only store objects within configured limits. Use the form below to change the default minimum and maximum object sizes.

The connection timeout setting is the maximum time Edge Cache will wait for a response from the WAN when fetching objects. You may need to increase this if connection timeouts are occurring regulary. Browsers typically return a message similar to the following when this occurs:

```
(110) Connection timed out
```

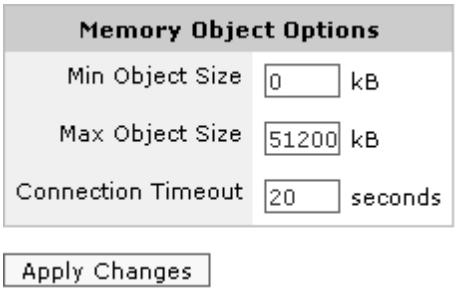
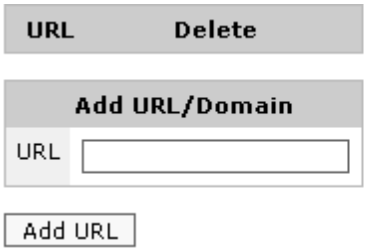


Figure 4: Edge Cache settings

The form below allows a blacklist of URL's or domains to be specified. Requests from these sites will never be cached.



Use the Clear button to remove all objects from the cache.

To see the current and maximum cache sizes, use the following CLI command:

```
show storage service edge-cache
```

3.2.1 Peering

Exinda appliances with Edge Cache can establish a community of peers in order to share objects between caches. Currently configured peers are shown in the table below. Click on the "Add New Peer Command" to add a new peer Exinda.

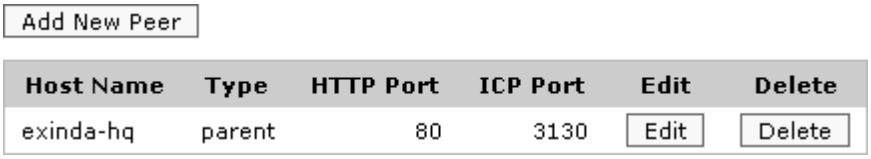


Figure 5: Edge Cache Peers

Use the form below to add a new peer or edit an existing peer

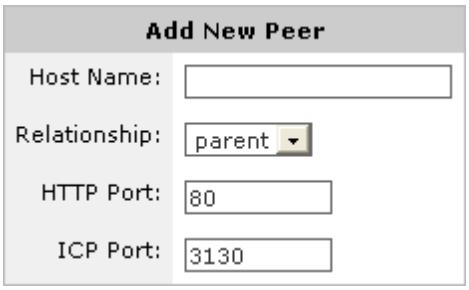


Figure 6: Add new Edge Cache Peer

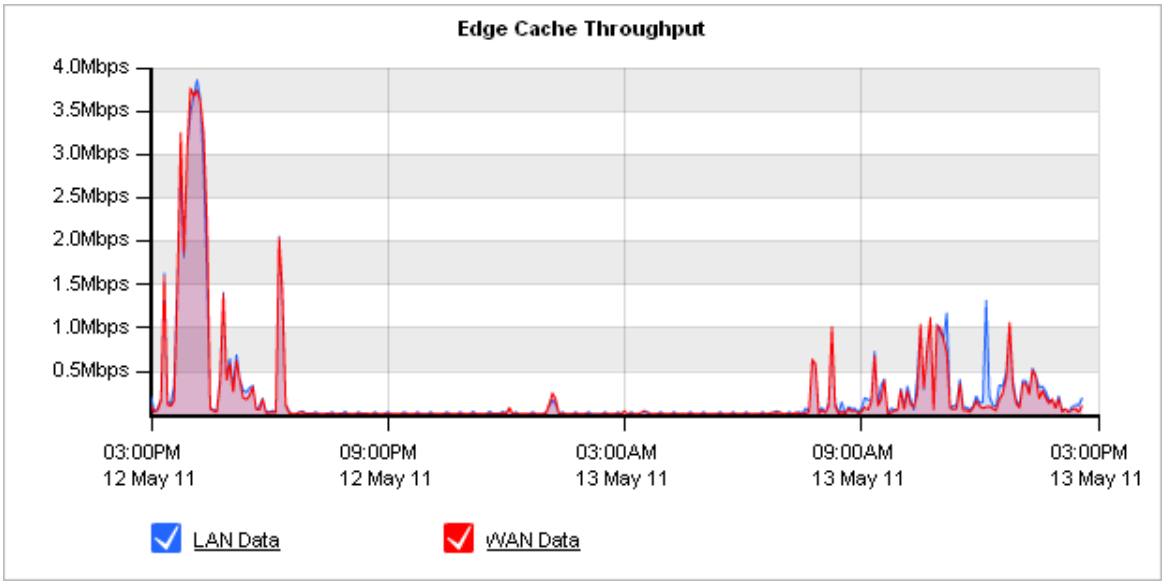
Host Name	The hostname of the peer
Relationship	Peer relationship. Only Parent is supported at present.
HTTP Port	The peer HTTP port
ICP Port	The peer ICP port

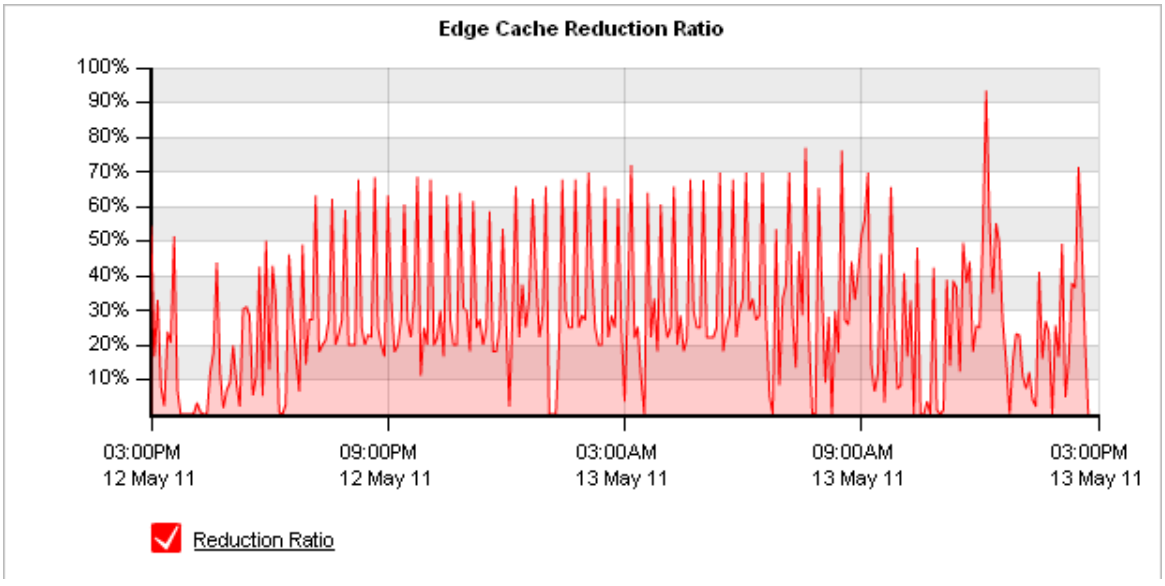
Part IV

4 Viewing Statistics

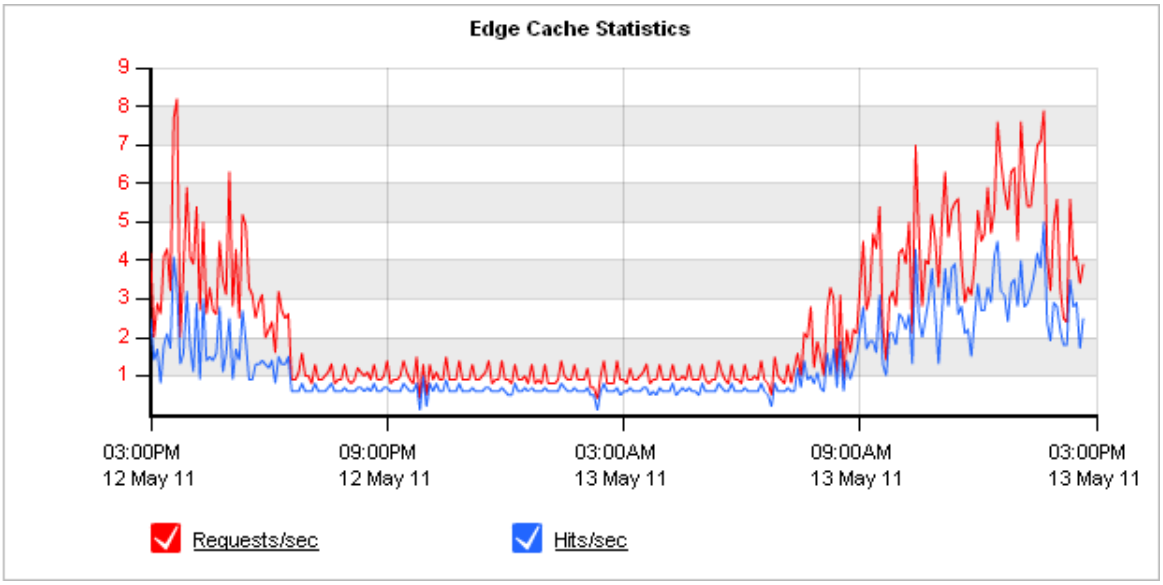
To view Edge Cache statistics, navigate to Monitor | Acceleration | Edge Cache.

There are two graph types available for throughput. 1. LAN and WAN shown as separate series and 2. The ratio of WAN to LAN throughput as a percentage.





The graph below shows the number of requests per second and the number of "hits" per second. A hit occurs when a request is made for an object stored in the Edge cache memory.



The table below shows a summary of Edge Cache statistics for the selected time period.

LAN (MB)	WAN (MB)	Reduction Ratio (%)	Requests	Hits	Hit Ratio (%)
2520.97	2324.41	7.80	198840	113850	57.26