

MAPI Acceleration

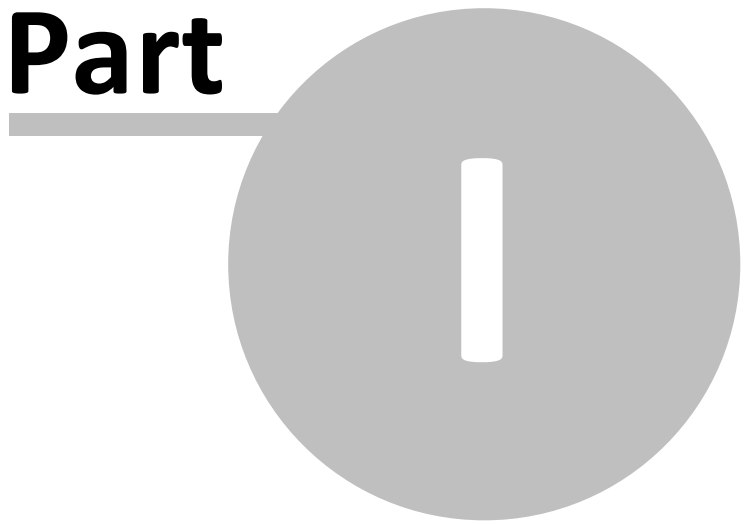
Exinda ExOS Version 6.3

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1 Introduction

MAPI Acceleration

Exinda Firmware Version: 6.3

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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.

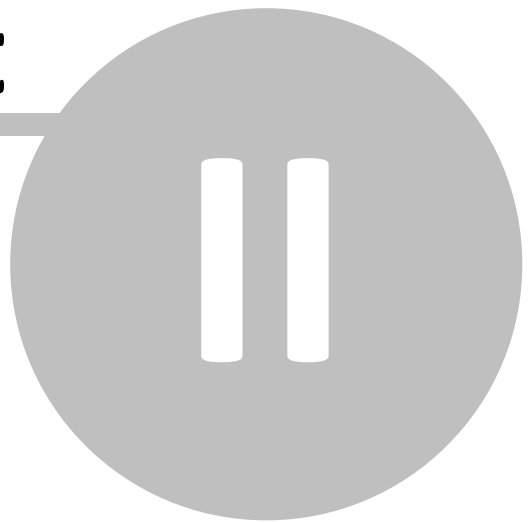
- Practical examples are presented throughout the manual for deeper understanding of specific concepts. These are called "examples" and are identified with a light green background.

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.

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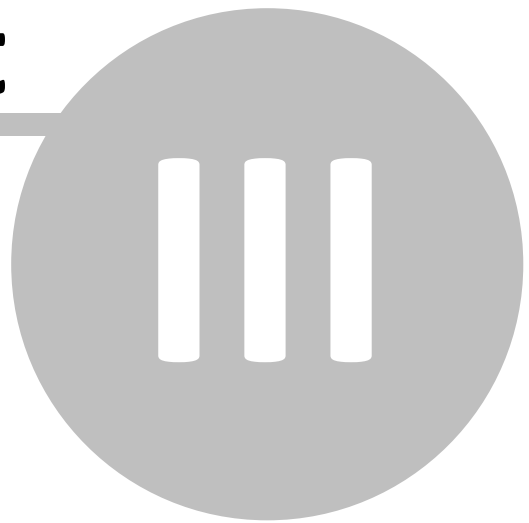


2 Overview

As of ExOS 5.2, Exinda x800 appliances have built-in support for accelerating MAPI traffic. In order to gain the most benefits from Exinda's acceleration, compression and WAN Memory technologies, it is recommended that any native compression and encryption be disabled in Exchange and Outlook.

This How to Guide explains how to disable Exchange compression and encryption for Outlook 2003/2007 clients and Exchange 2003/2007 servers.

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3 Enable MAPI Acceleration on the Exinda Appliances

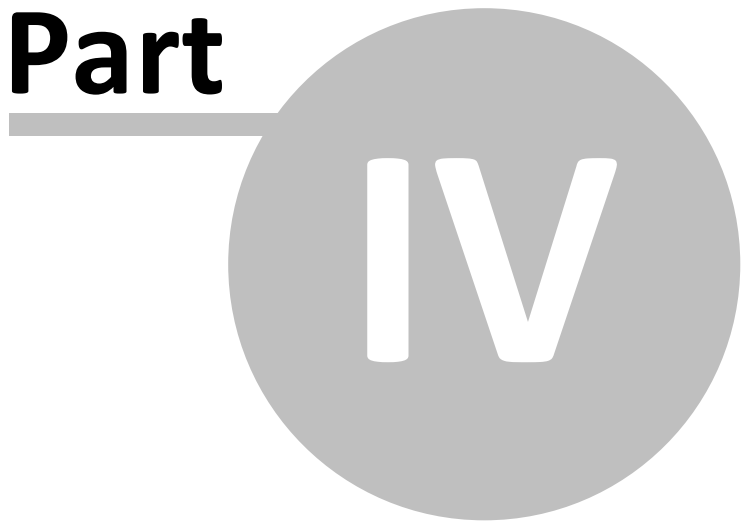
Turn Acceleration ON for the policy that captures MAPI traffic. By default this policy is called "Mail - Guarantee Low 5%-100% - Accelerate".

Virtual Circuit 15 - WAN outbound (1024000 kbps to ALL)		--Actions--
<input checked="" type="checkbox"/>	10 P2P - Choke 1%-3% (Optimize, 1%-3%, Priority 10)	--Actions--
<input checked="" type="checkbox"/>	20 Recreational - Limit Low 2%-10% (Optimize, 2%-10%, Priority 10)	--Actions--
<input checked="" type="checkbox"/>	30 Software Updates - Guarantee Low 5%-100% - Accelerate (Optimize, 5%-100%, Priority 6, Application Acceleration)	--Actions--
<input checked="" type="checkbox"/>	40 Voice - Guarantee Critical 15%-100% (Optimize, 15%-100%, Priority 1)	--Actions--
<input checked="" type="checkbox"/>	50 Interactive and Secure - Guarantee High 10%-100% (Optimize, 10%-100%, Priority 3)	--Actions--
<input checked="" type="checkbox"/>	60 Thin Client - Guarantee High 10%-100% (Optimize, 10%-100%, Priority 3)	--Actions--
<input checked="" type="checkbox"/>	70 Files - Guarantee Med 8%-100% - Accelerate (Optimize, 8%-100%, Priority 4, Application Acceleration)	--Actions--
<input checked="" type="checkbox"/>	80 Web - Guarantee Med 8%-100% - Accelerate (Optimize, 8%-100%, Priority 4, Application Acceleration)	--Actions--
<input checked="" type="checkbox"/>	90 Mail - Guarantee Low 5%-100% - Accelerate (Optimize, 5%-100%, Priority 6, Application Acceleration)	--Actions--
<input checked="" type="checkbox"/>	100 Database - Guarantee Med 8%-100% - Accelerate (Optimize, 8%-100%, Priority 4, Application Acceleration)	--Actions--
<input checked="" type="checkbox"/>	200 ALL - Guarantee Low 5%-100% (Optimize, 5%-100%, Priority 7)	--Actions--
Order:	Policy: ALL - Accelerate	Add To 'WAN outbound'

Figure 1: By default, MAPI falls into this Mail policy.

Note: This can be done by following the Optimizer Wizard in the Basic User Interface. Select 'Yes' when asked if you would like to accelerate.

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IV

4 Turn off MAPI Encryption and MAPI Compression

4.1 Turning off Compression

MAPI Compression is a server side configuration parameter. Therefore, you need to make the change on all Exchange servers. On each Exchange Server (Exchange 2003/2007), make the following change in the Windows Registry.

Navigate to:

"HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\MSExchangeIS\ParameterSystem" and set "Rpc Compression Enabled" to "0".

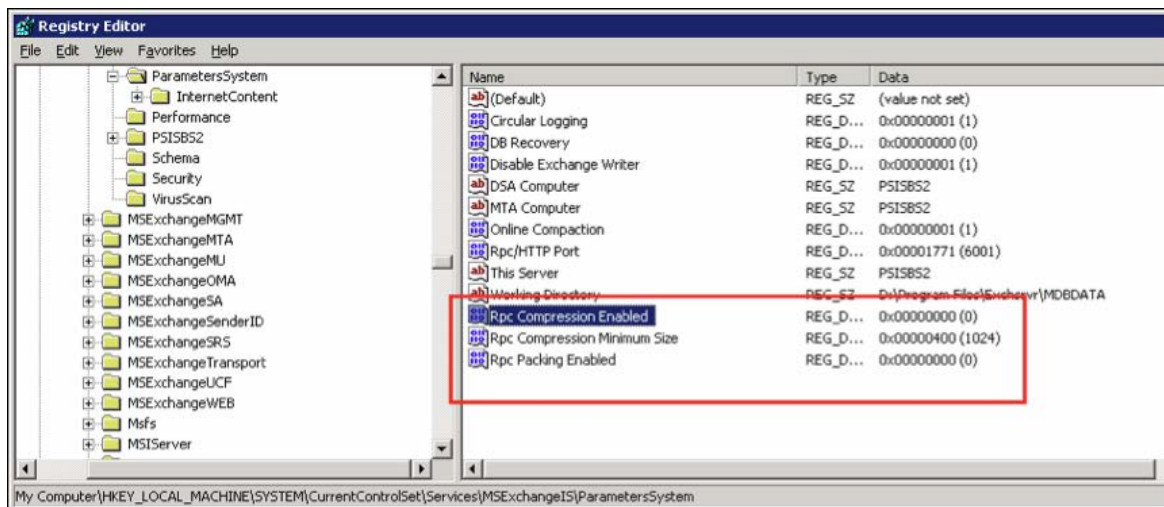


Figure 2: Change the compression parameter in the Windows Registry on all Exchange servers.

Note: If this registry entry is not present by default, it needs to be added as a DWORD and the value set to "0".

Once this changes has been made, Exchange will need to be restarted.

4.1.1 Comparing 'Exchange Compression' to 'Exinda WM Compression'

The following 2 tests were carried out to compare the performance of Exinda's compression and WAN Memory technologies to Exchange's native compression.

Exchange Results:

1 recipient: 3.3MB was compressed to 3MB – 10% reduction

2nd and subsequent recipients: 3.3MB was compressed to 3MB – 10% reduction

Exinda Results:

1 recipient: 3.3MB was compressed to 2.5MB – 24% reduction

2nd and subsequent recipients: 3.3MB was compressed to 0.2MB – 94% reduction

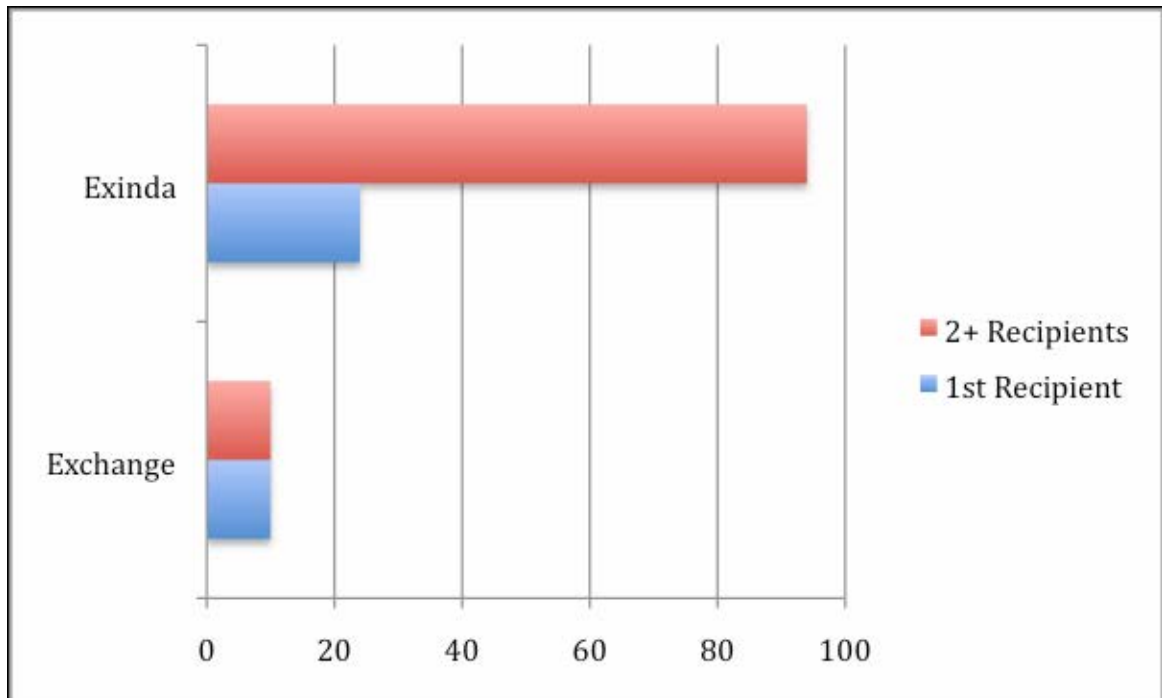


Figure 3: Compression percentage achieved by Exinda and Exchange.

Test parameters:

- File size: 3.3MB PDF file
- Link speed: 2Mbps, with 30ms RTT
- Email: Exchange 2007 server / Outlook 2003 client
- Exinda devices: 2x Exinda 4800 appliances

4.2 Turning off Encryption

MAPI Encryption is a client side configuration parameter in Outlook. Therefore, you need to make the change on each Outlook client.

There are two items in Outlook that will require configuration - Trust Center and Account settings.

First navigate to the "Tools" menu, then select the "Trust Center" option. Select the "E-mail Security" link on the left and ensure the "Encrypt contents and attachments for outgoing messages" option is disabled.

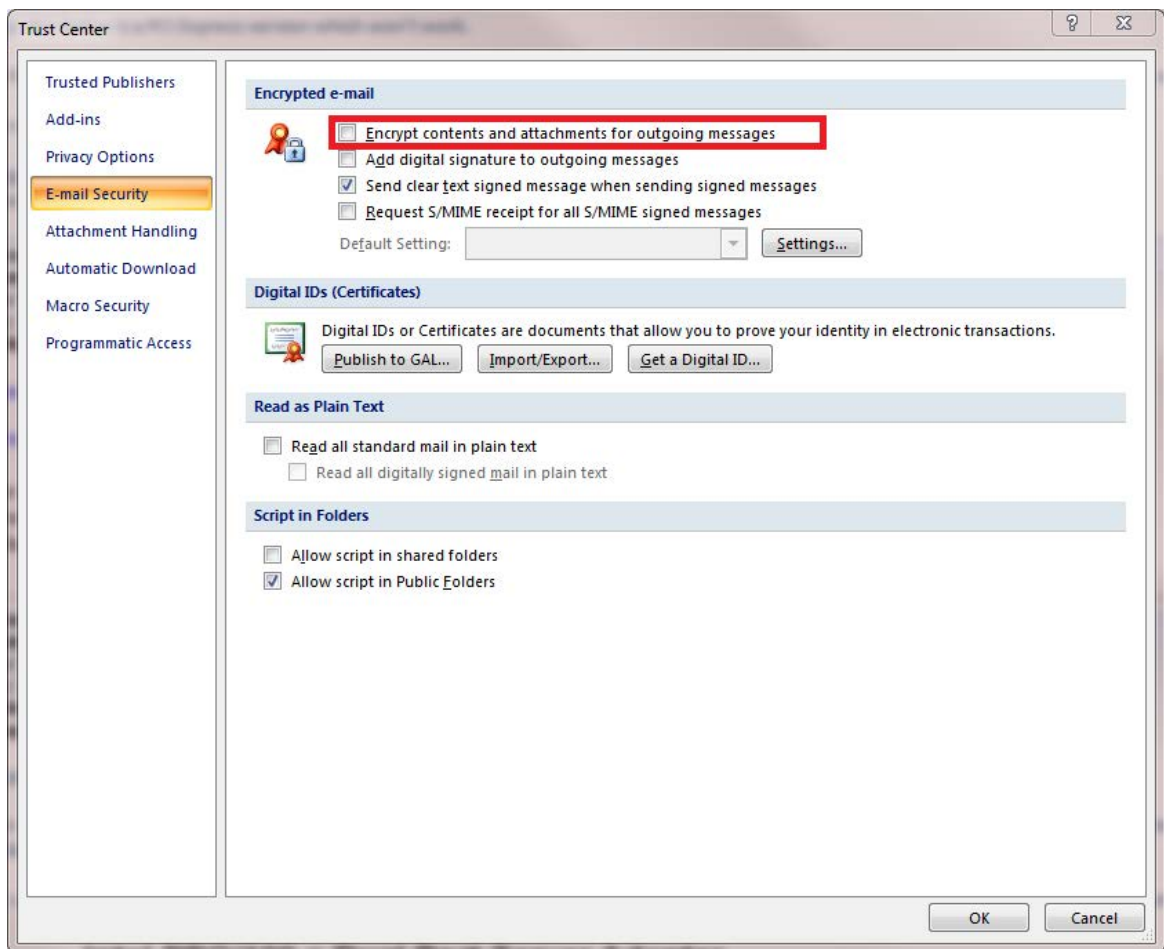
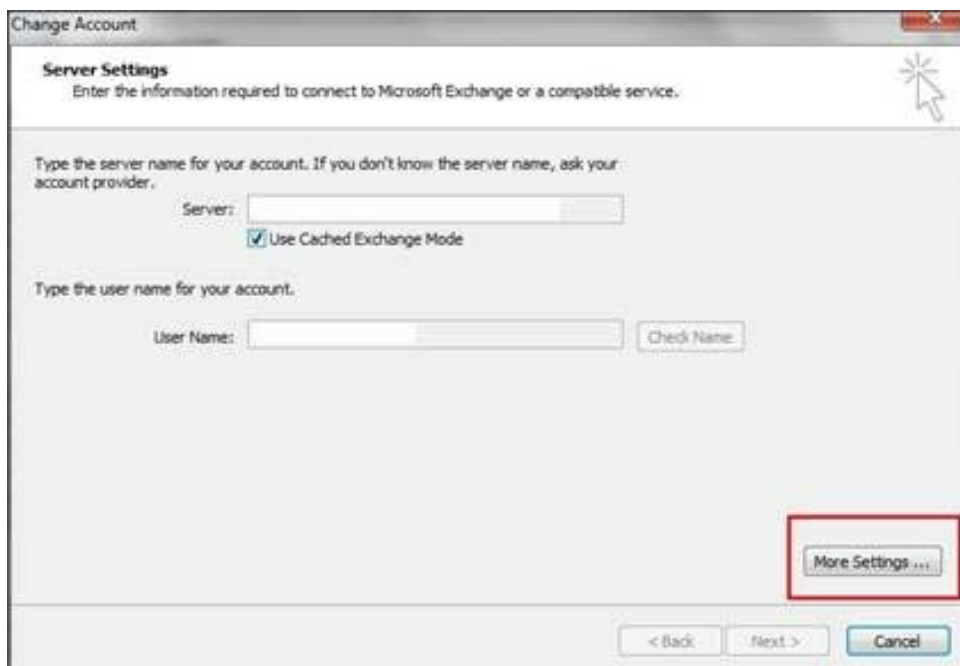
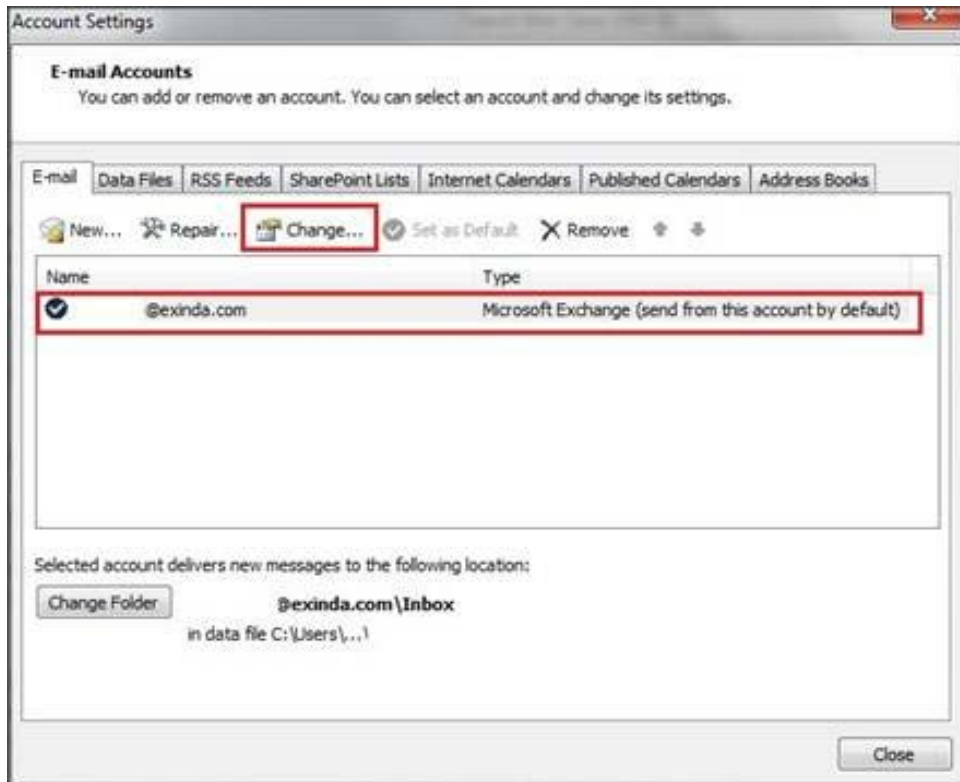


Figure 4: Disabling encryption on an Outlook client - Trust Center settings

Now open the Account settings dialog from the Tools menu, navigate to the Security options and disable encryption as shown below.



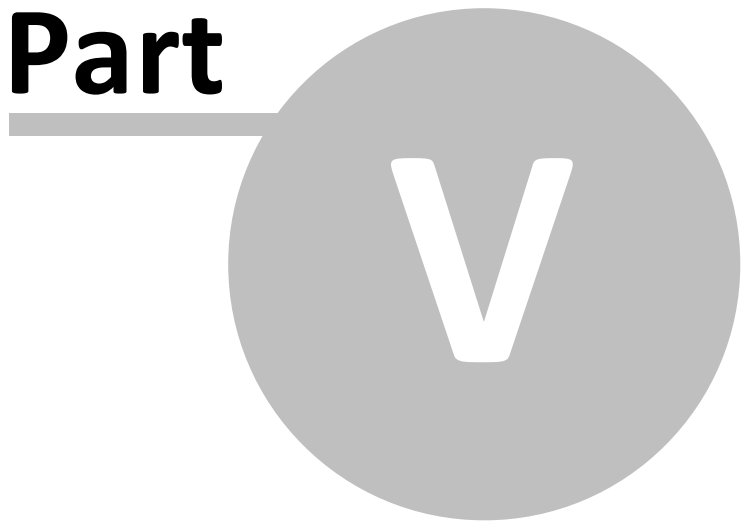


Ensure that Encryption option shown above is unchecked.

Figure 5: Disabling encryption on an Outlook client - Account settings

Note: These parameters are configurable via a global change so that each client does not need to be individually changed.

Part



5 View Acceleration Results

Navigate to the Exinda Web User Interface (Web UI) - Advanced Mode. Click on Monitor | Reduction to view the MAPI reductions results, in this case there is 37% reduction for MAPI.

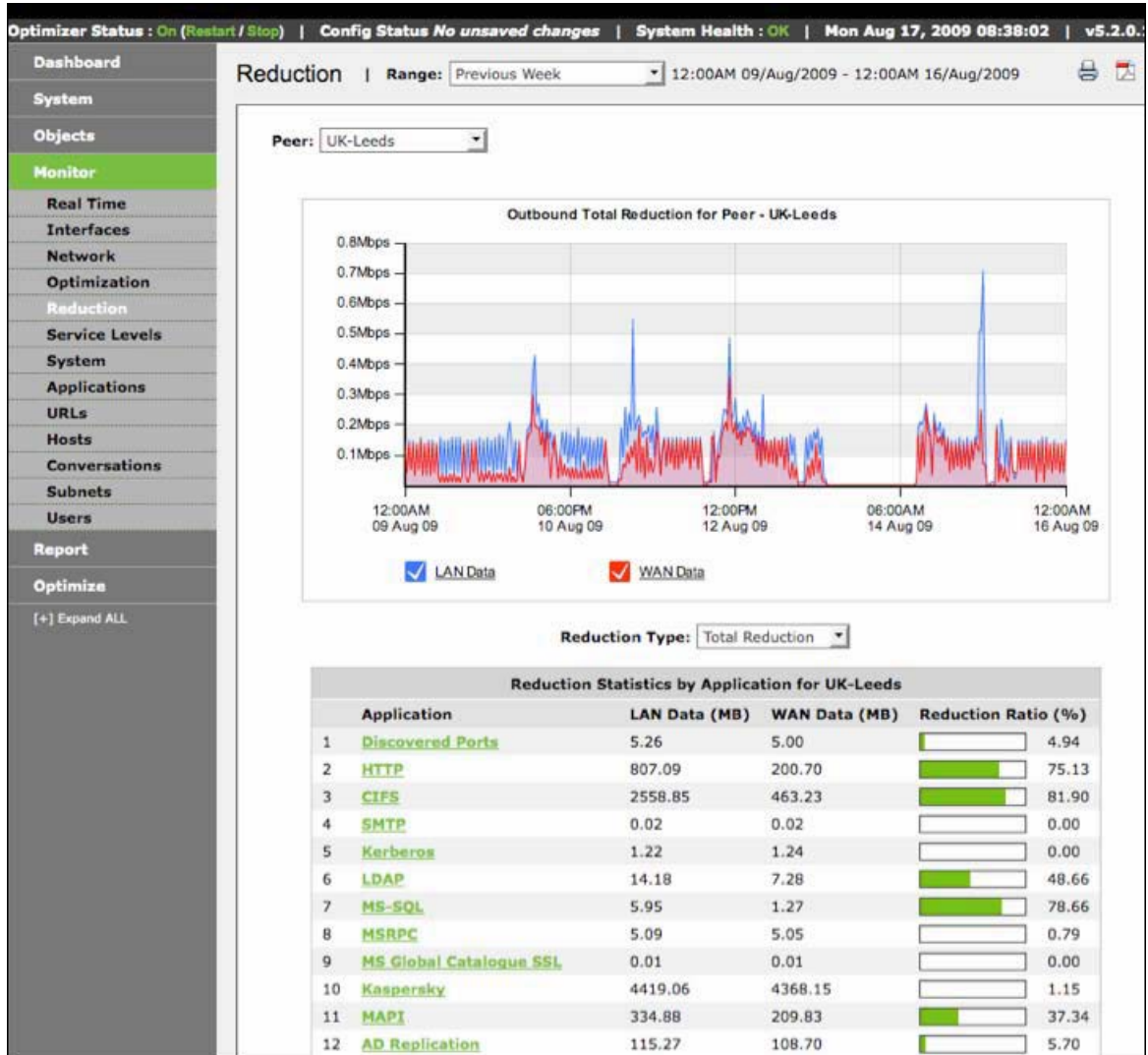


Figure 6: Example reduction statistics after disabling MAPI compression and encryption.