

**Time Sensitive Information!**

**These Configuration Changes Must Be Applied  
Ten Days Prior to Crexendo Cut-Over**

**VeloCloud Edge Router Configuration  
For Crexendo Cloud Telephony Deployment**  
Document Version 1.0

March 21st, 2018

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## **Read Me!**

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1. These changes must be applied before client implements their Crexendo hosted telephony solution.
2. If you are experienced with business class firewalls and routers, please have your IT staff/contractor perform these changes for you.
3. Please read this entire document before attempting to make any changes.
4. If you have questions about this document, you can call 855-211-2255 to schedule an appointment with one of our firewall support specialists. We will attempt schedule your appointment within 24- 48 hours of your call to us so please allow adequate time.
5. After changes are completed please let your client or Crexendo Customer Support specialist know.
6. Once completed, a Crexendo technician will be requesting access or a collaborative web session to verify settings prior to customer cut over.

## Introduction

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This document is for IT administrators and illustrates configuration changes required on VeloCloud firewall & router appliances to support Crexendo's cloud communications telecommunications platform. This document assumes a basic network deployment consisting of one internal LAN network containing the IP phones and one WAN network connected to the Internet. While we strongly recommend a dedicated network for VoIP traffic, the instructions below can be used for a "converged" network whereby both VoIP and non-VoIP traffic share one physical WAN network. With basic modifications (such as adding access rules for additional interfaces); this configuration can be extrapolated for other network layouts. The screenshots below may vary slightly from what is displayed while configuring the device depending on model and software version. Setting values not mentioned may be left at default or changed as required for specific purposes.



**Please call Crexendo Customer Support at 855-211-2255 if you need any further information. Firewall changes can be in depth and you will need to schedule time with one of our specialists if you need assistance.**

Screenshots and instructions are based on VeloCloud 510 running Software Version 2.4.4.

We recommend loading the latest software version (firmware).

## Firewall Checklist

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Please provide screen shots to Crexendo for verification of settings. This will allow the implementation process to be smooth and ensure quality audio and proper signaling.

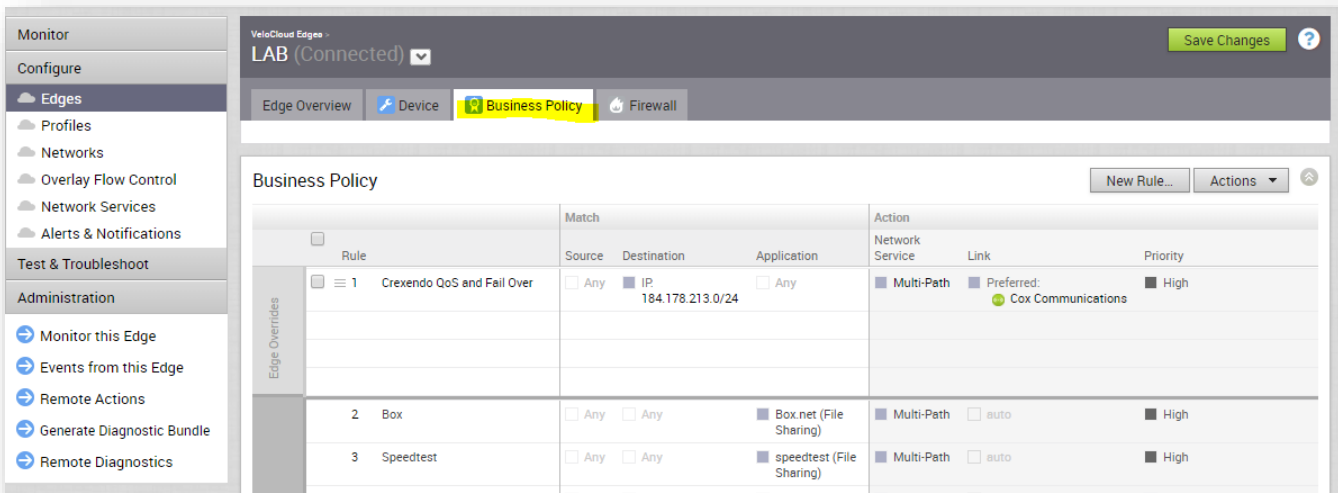
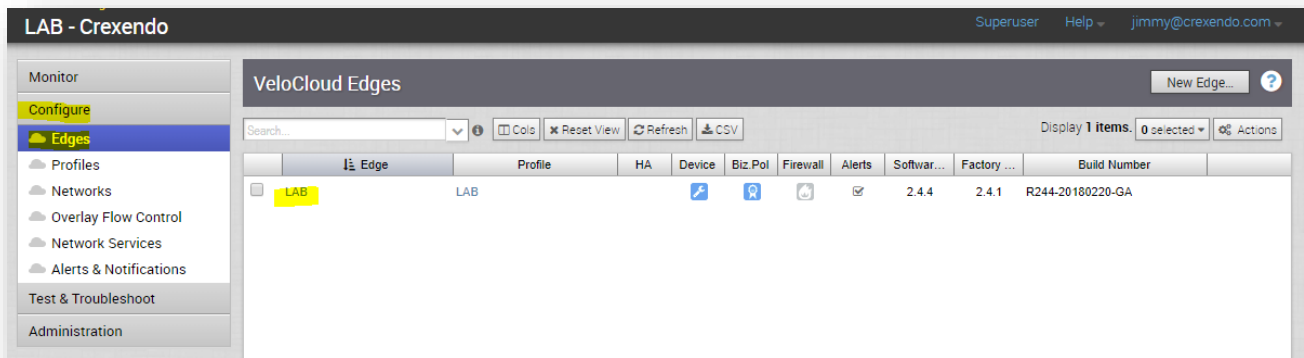
Screen Shot #:	Configuration:	Completed:
1	Configure → Edges → Select Device → Business Policy Tab	
2	Configure → Edges → Select Device → Business Policy Tab of the Crexendo Rule	

# Business Policy Configuration

## Configure → Edges → Select Device → Business Policy Tab

Note: This document assumes that the VeloCloud device has been setup on the network and has multiple internet/WAN interfaces.

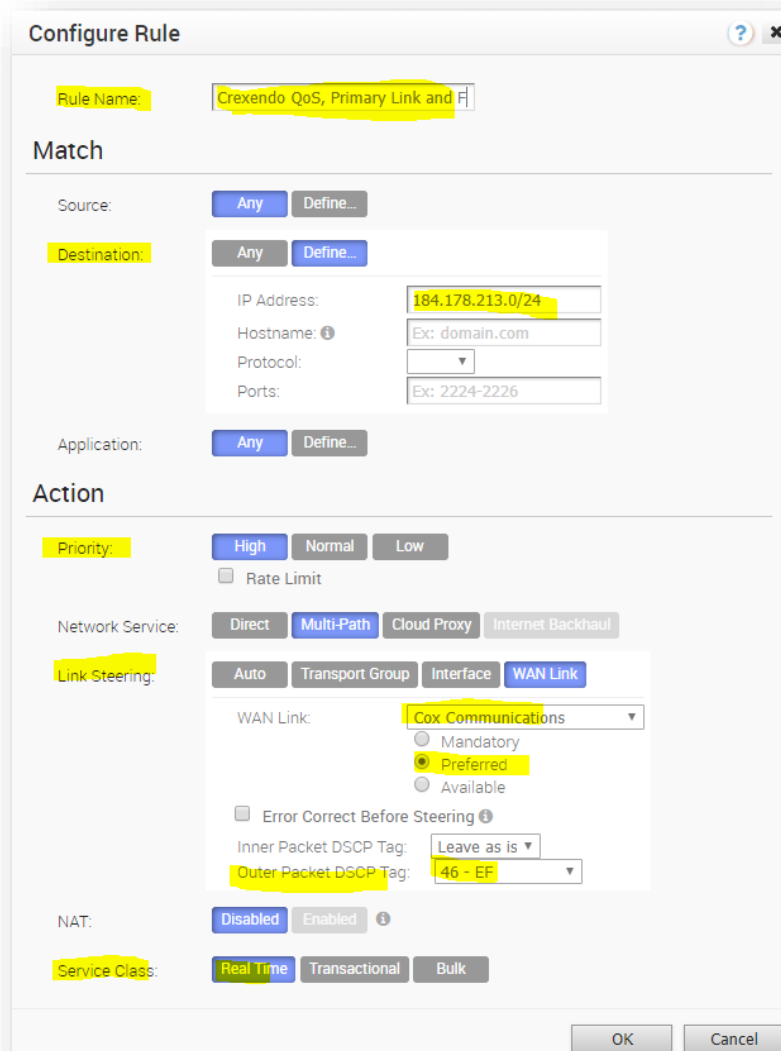
Please browse to the Business Policy Tab:



## Configure → Edges → Select Device → Business Policy Tab

### Create a Business Policy for Crexendo Traffic

- Click on the “New Rule” button towards the top right of screen
- This will bring up a “Configure Rule” window
- Configure the rule with the following information:
  - Rule Name: Crexendo QoS, Primary Link and Fail Over
  - Source: Any
  - Destination: 184.178.213.0/24
  - Priority: High
  - Link Steering: WAN Link
  - WAN Link: Choose Primary Circuit for Crexendo Traffic from the drop down
    - This example has the “Cox Communications” link
    - Choose “Preferred” or “Available” (see notes)
  - Outer Packet DSCP Tag: 46 -EF
  - Service Class: Real Time
  - Click OK and Save Changes (Green button at top right of screen)



**Configure Rule**

Rule Name: Crexendo QoS, Primary Link and F

**Match**

Source: Any Define...

Destination: Any Define...

IP Address: 184.178.213.0/24

Hostname: Ex: domain.com

Protocol: [v]

Ports: Ex: 2224-2226

Application: Any Define...

**Action**

Priority: High Normal Low

Rate Limit

Network Service: Direct Multi-Path Cloud Proxy Internet Backhaul

Link Steering: Auto Transport Group Interface WAN Link

WAN Link: Cox Communications

Mandatory

Preferred

Available

Error Correct Before Steering

Inner Packet DSCP Tag: Leave as is

Outer Packet DSCP Tag: 46 - EF

NAT: Disabled Enabled

Service Class: Real Time Transactional Bulk

OK Cancel

### Notes on “Link Steering”:

- **Preferred** indicates the traffic should preferably be sent over the WAN link or link Service-group specified. If the link specified (or all links within the chosen service group) is inactive **or** if the Multi-path gateway route chosen is unstable **or** if the link Service Level Objective (SLO) is not being met, the corresponding packet will be steered on the next best available link. If the preferred link becomes available again, traffic will be steered back to the preferred link.
- **Available** indicates the traffic should preferably be sent over the WAN link or link Service-group specified as long as it is available (irrespective of link SLO). If the link specified (or all links within chosen service group) are not available **or** if Multi-path gateway route chosen is unavailable, the corresponding packet will be steered to the next best available link. If the preferred link becomes available again, traffic will be steered back to the available link.

## Document Revision History

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Version	Reason for Change	Date
1.0 Draft	Initial Draft Document	March 21, 2018