Working with Cellocator+ using a Private APN

Application Notes

Proprietary and Confidential

Version 1.0

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1 Introduction

This application note details a specific method to connect Cellocator units to the Cellocator+ maintenance platform while using a private APN.

Note that Cellocator offers its assistance in the deployment of such a configuration as well as debugging connectivity issues related to such connection. If you have any questions or are in need of assistance, please address your request through our Customer Support Portal.

1.1 Revision History

Version number	Date	Description
1.0	February 19, 2015	First version

2 The Problem

Many telematics service providers (TSP) prefer to have Cellocator units communicate with their gateway equipment using a private APN due to the obvious reasons of enhanced security, improved communication stability and so on.

One drawback of using a private APN is the inability of Cellocator units to communicate with the Cellocator+ platform. This drawback is imposed by the VPN tunnel technology used by the cellular provider which is point-to-point communication, from the cellular provider network to the TSP network.

Cellular providers can technically allow a specific firewall rule in the private APN configuration that permits world-wide-web (WWW) access to a specific site, but we found these cases to be rare.

3 The Solution

The proposed solution that enables Cellocator devices to access the Cellocator+ maintenance platform while using a private APN utilize the network equipment used by the TSP (physical router, firewall or software based solution) with dedicated access rules, as well as having the TSP configure the private APN to forward all IP address requests generated by Cellocator units to the TSP network.

3.1 Solution Walkthrough

The Cellocator unit should be configured with a Cellocator+ public IP address and port (62.90.141.201; 7435). The communication equipment (configured accordingly below) will detect requests to that specific address and then will act as a router between the Cellocator device and Cellocator+, sending communication packets back and forth.

3.2 Network Rules

3.2.1 *Virtual Server / Network Object*

A Virtual Server should be configured to forward any communication (Source; 0.0.0.0) requests generated by Cellocator devices to the Cellocator+ public IP address and port (Host; 62.90.141.201; 7435) as Host type.

3.2.2 *Static Route*

A static route should be configured to route any requests for the Cellocator+ public IP address through the WWW gateway of the network equipment.

3.3 Configuration Examples

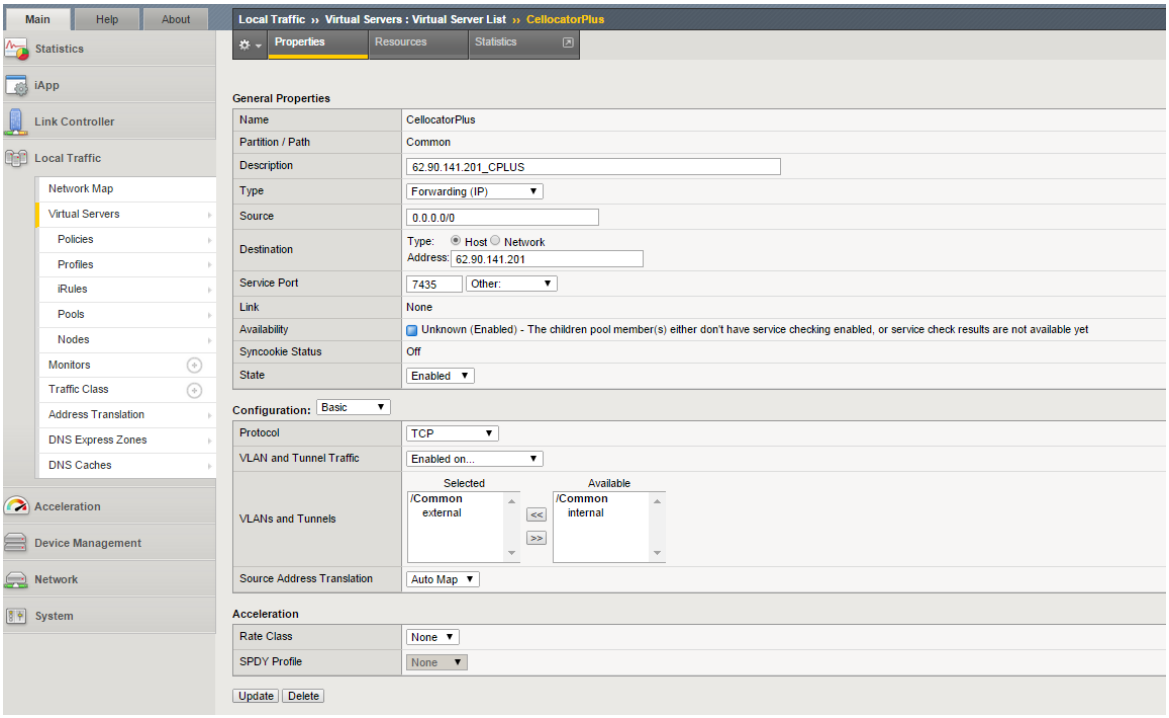
The following configuration relates to F5 Local Traffic Manager and Checkpoint firewall equipment.

Terminology differences might apply between network equipment vendors.

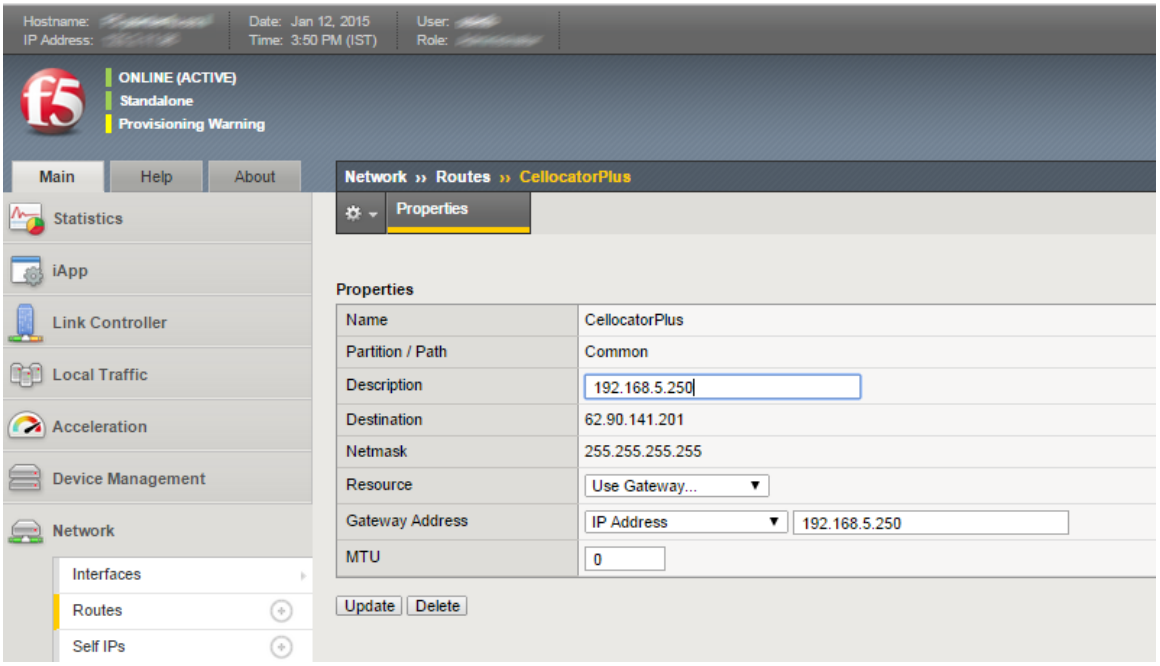
Virtual Server	
Type	Forwarding (IP)
Source	0.0.0.0
Destination Type	Host
Destination Address	62.90.141.201
Destination Port	7435

Static Route	
Destination Network	62.90.141.201
Subnet Mask	255.255.255.255
Gateway Address	WAN IP address

3.3.1 *F5 Virtual Server (Local Traffic Manager)*



3.3.2 *F5 Static Route*



3.3.3 *Checkpoint Firewall (R7150)*