

# Starting Linux ‘pppd’ at Boot for Skywire™ LTE CAT3 Modem On BeagleBone Black

NimbeLink Corp

Updated: July 2016



© NimbeLink Corp. 2016. All rights reserved.

NimbeLink Corp. provides this documentation in support of its products for the internal use of its current and prospective customers. The publication of this document does not create any other right or license in any party to use any content contained in or referred to in this document and any modification or redistribution of this document is not permitted.

While efforts are made to ensure accuracy, typographical and other errors may exist in this document. NimbeLink reserves the right to modify or discontinue its products and to modify this and any other product documentation at any time.

All NimbeLink products are sold subject to its published Terms and Conditions, subject to any separate terms agreed with its customers. No warranty of any type is extended by publication of this documentation, including, but not limited to, implied warranties of merchantability, fitness for a particular purpose and non-infringement.

Skywire and NimbeLink are trademarks of NimbeLink Corp. All other trademarks appearing in the document are the property of their respective owners.

# Table of Contents

## 1. INTRODUCTION

- 1.1 ORDERABLE PART NUMBERS
- 1.2 DESCRIPTION

## 2. PROCEDURE

- 2.1 VERIFY PPP WORKS
- 2.2 MODIFY THE PPP SCRIPT FILE
- 2.3 CREATE A BOOT SCRIPT
- 2.4 MAKE THE BOOT SCRIPT EXECUTABLE
- 2.5 UPDATE THE BOOT SEQUENCE
- 2.6 REBOOT AND VERIFY CONNECTION

# 1. Introduction

## 1.1 Orderable Parts

Number	Description	Manufacturer	Carrier	Network Type
<a href="#">NL-AB-BBBC</a>	Skywire™ Beagle Bone Black Cape	Nimbelink		
<a href="#">NL-SW-LTE-TSVG</a>	Skywire™ LTE without Fallback, GPS, GLONASS	Nimbelink	Verizon	LTE

\*Antenna is a dual cellular & GPS antenna

## 1.2 Description

This document provides steps to setup the PPP connection on boot. This has been tested with a BeagleBone Black (kernel 3.8.13-bone73) with a LE910-SVG. This will allow you to have a PPP connection with your Skywire™ modem without needing to manually start it.

# 2. Procedure

## 2.1 Verify PPP Works

Follow the [Skywire™ PPPd on Linux guide](#) to verify that your connection works.

## 2.2 Modify the PPP Script File

In the PPP script file, remove the following line:

```
updetach
```

## 2.3 Create a Boot Script

Create a script file (for example, “start\_ppp”) in the directory /etc/init.d/. In the file, type the following:

```
#!/bin/bash
# /etc/init.d/start_ppp

ifconfig eth0 down
ifconfig usb0 down

pon verizon
```

Where “verizon” is the name of your PPPd script file.

## 2.4 Make the Boot Script Executable

Make the file executable:

```
# chmod 755 /etc/init.d/start_ppp
```

## 2.5 Update the Boot Sequence

Finally, update the system to use start the script at boot. It is recommended that you put the startup script before rc.local is loaded. To find out the best place to put it, type:

```
# ls /etc/rc5.d
```

to see the startup order. You may want to check other rc levels, like rc4.d, as well. For instance, on this test system, the startup level for rc.local is 06 (S06rc.local). So, we would want the script to start at 05.

```
# update-rc.d start_ppp defaults 05
```

## 2.6 Reboot and Verify Connection

Reboot, and if you run ifconfig once you login, you should have your PPP script up and running.