

# RUTOS SDK Usage Examples

The information in this page is updated in accordance with firmware version [00.07.03.1](#).



## Contents

- [1 Introduction](#)
- [2 Changing the default Network settings](#)
  - [2.1 Changing the default Mobile configuration](#)
  - [2.2 Changing the default LAN IP address](#)
  - [2.3 Setting WAN port as LAN](#)

## Introduction

A software development kit (SDK) is a set of software development tools that provides the possibility to create applications for a certain software package, software framework, computer system or similar development platform.

This article will show you how to use the SDK to modify the default configuration of Teltonika devices, using the RUT955 as an example. These guidelines also apply to other Teltonika Networks devices running RUTOS firmware.

## Changing the default Network settings

Network related settings are generally saved in the **/etc/config/network** .config file which is generated during the first-boot of the device by the **config\_generate** script.

To change the default configuration and/or parameters of the services and features related to the **/etc/config/network** file, it is required to make direct appends to the script itself that generates the **/etc/config/network** file. The script that generates the **/etc/config/network** file is located in the **/package/base-files/files/bin/config\_generate** directory.

## Changing the default Mobile configuration

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The "Mobile" parameters that we will be pre-configuring in the SDK:


- Custom APN
- PAP authentication method

Open the **config\_generate** script and navigate to the line 178. There, you should be able to see the **"add\_modem\_section()"** function, where we will be making our changes. To set a custom APN, you will need to add the following lines to the existing "uci\_set" commands:

```
uci_set network "${interface}" force "-1"
uci_set network "${interface}" apn "YOUR_APN"
```

To add PAP authentication method, change the existing "**uci\_set network "\${interface}" auth "none"**" line to "**uci\_set network "\${interface}" auth "pap"**", then add the following lines to define your APN username and password:

```
uci_set network "${interface}" username "YOUR_USERNAME"
uci_set network "${interface}" password "YOUR_PASSWORD"
```

After applying the aforementioned changes, the "**add\_modem\_section()**" function in the script should look similar to this: 

## Changing the default LAN IP address

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Open the **config\_generate** script and navigate to the line 70; there, you should be able to see the "**generate\_network()**" function, where we will be applying the following changes. For demonstration purposes, our custom LAN IP address will be set to "**10.10.10.1**":

- In the line 119 you should be able to see the "**ipad=\${ipaddr:-"%%LAN\_IP%%"}**" line. Change the "**%%LAN\_IP%%**" portion with your desired LAN IP address; for example:  
**"ipad=\${ipaddr:-"10.10.10.1"}**"

After applying this change, the "**generate\_network()**" function should look similar to this: 

## Setting WAN port as LAN

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To enable the "**WAN as LAN**" feature, you will need to disable the WAN/WAN6 interfaces and bridge the "**eth1**" interface to the LAN interface in the same "**generate\_network()**" function.

To bridge the "**eth1**" interface to the LAN interface, add the following command after the line 120:

```
uci set network."$1".ifname='eth0 eth1'
```

To disable WAN/WAN6 interfaces, add the following commands after line 147 and line 158:

### After Line 147:

```
set network.$1.disabled='1'
```

### After Line 158:

```
set network.${1}6.disabled='1'
```

After applying these changes, the "**generate\_network()**" function should look similar to this: 