Carrier (SIM) Smart Select

6310-DX, 6330-MX, and 6350-SR

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Difficulty level: *Intermediate*

Goal

To use the 63xx-series router's dual SIM modem to provide internet connectivity with one SIM, and failover to the other SIM slot if the first SIM's connection dies.

Setup

For this setup, you will need two SIM cards enabled, provisioned, and installed in the 63xx-series router's pluggable cellular modem's SIM slots. The two SIM cards can be from the same provider (e.g. two Verizon SIMs), or can be from different carriers.

> ***Note:*** If one of the SIM cards requires a custom or unique APN, you will need to add this APN into the 63xx- series router's configuration, under the ***Modem -> APN*** option.

Sample

By default, the 63xx-series router is setup for automatic SIM selection. Meaning, if the 63xx-series router is unable to connect with the SIM in slot 1, after a specified number of failures the 63xx-series router will automatically switch to use the SIM in slot 2.

We will leverage this automatic SIM failover, along with a connectivity monitor, to setup the 63xx-series router to failover between SIM cards if either SIM is unable to establish a cellular connection.

In the sample configuration below, the 63xx-series router is setup to test the cellular network connection once every two minutes. If three sequential tests fail, then the 63xx-series router will restart the cellular connection, attempting to connect with the same SIM card. If the SIM card fails to connect after five attempts (each attempt takes from 10-30 seconds), the 63xx-series router will switch to the secondary SIM slot.

Summed up, if a SIM's cellular connection fails, with the below configuration the 63xx-series router will failover to the secondary SIM in under 10 minutes.

Sample Configuration

Open the configuration profile for the 63xx-series router and make the following changes. Under ***Modem***, set the following options.

- **Active SIM slot:** Automatic
- **Automatic SIM selection connection attempts:** 5

Next, open the ***Modem -> Connectivity Monitoring*** section and make the following changes.

- **Enabled:** checked
- **Restart interface:** checked
- **Interval:** 2m
- **Attempts:** 3
- **Test targets:** a ping test to *128.136.167.120* and a HTTP test to *distro.accns.com*
  Note: 2 different tests are recommended to prevent false positives

NOTE: Best practices dictate that redundant tests (with divergent failure conditions) will be the best way to ensure proper connectivity monitoring/active recovery. With only a single test type, false positives could be reported.