

DATA-Guard v2 App Datasheet

"The Ultimate 'Swiss Army Knife' for your Robustel Router"

DATA-Guard v2 is an application that can be installed in all of Robustel's routers to give a unique level of control & risk reduction for your cellular connected applications.

DATA-Guard v2 provides three distinct features:

Smart-Reboot – Helps to solve the age old problem of Roaming SIMs not roaming!

DATA-Guard – Provides a "hard cap" on data use to reduce the risk of Bill-shock.

Raise/Lower Data Connection via SMS - Manage your data connection via SMS from any location.

1. Smart-Reboot

Roaming SIM cards are often sold as a way to improve reliability in IoT applications but there are many examples of unsuccessful outcomes by virtue of the router not roaming to a different network when Comms has failed on the current network.

A detailed explanation of this issue is available in the Smart Roaming product brief available from your Robustel Sales representative.

In short, the process that routers use to determine which network to use (Automatic Network Selection) only uses signal strength to determine a usable network and this doesn't necessarily correlate with a network that can actually transmit data.

By sending an SMS message to the router with the body – "SIM1 SMARTREBOOT", the router will delete the 'last known good network' from the SIM then reboot the router. This means the router will perform a scan and choose a network at random from a list of networks with adequate signal strength per the 3GPP definition of Automatic Network selection.

A simple SMS could be the difference between having to visit site or not.

A 10c SMS message could save a \$500 truck-roll!

Please note that Smart-Reboot has been optimised for "unsteered" roaming SIMs – Robustel's network selection logic may not be able to bring about performance benefits on SIMs that experience "steering of roaming" by network operators.

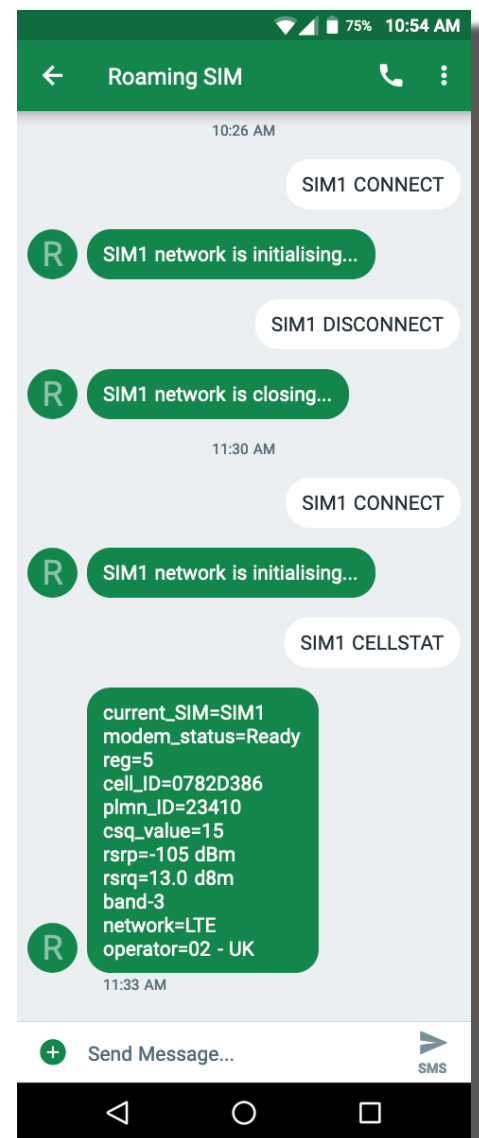


Figure 1.0 - Example SMS Commands and Responses from the DATA-Guard v2 App

2. DATA-Guard

Robustel's "DATA-Guard" application has been designed to help customers reduce the risk of a growing phenomenon in the M2M / IoT space – "Bill-shock" – incurring completely unexpected data over-usage charges due to a technical glitch/ unexpected fault mode.

Feature's of DATA-Guard Application for Robustel routers:

- Instantly stop data transfers when a data threshold is reached
- Resume data connection at start of next billing cycle or with easy SMS override any time
- Receive SMS or Email alerts when 'soft' or 'hard' thresholds are crossed
- Significantly reduce the risk of data over-usage bills, especially on 'Roaming' SIMs
- Works on all of Robustel's Cellular Routers

3. Raise/Lower Data Connection via SMS

A side benefit of the DATA-Guard APP is the ability to allow or disallow a data connection by SMS at any time with the commands 'SIM1 CONNECT' and 'SIM1 DISCONNECT'. This can be useful if customers do not pay their bills or for systems that are provided on a rental basis which can be remotely controlled with high accuracy.

It can also help to take the risk out of using Public IP addressable SIMs. By lowering the data connection when the router is not in use (such as in a proof of concept) the risk of online portscanners/net-scanners racking up high data usage can be reduced.

Index	SIM Card	SMS Send Enable	Email Send Enable
1	SIM1	true	true
2	SIM2	true	false

Figure 2.0 - DATA-Guard v2 App Config screen

DATA-Guard v2 can be installed Over-the-Air (OTA) to any eligible Robustel device connected to RCMS with an Essentials License or greater. Alternatively contact your Robustel representative for more information and a copy of the DATA-Guard v2 App