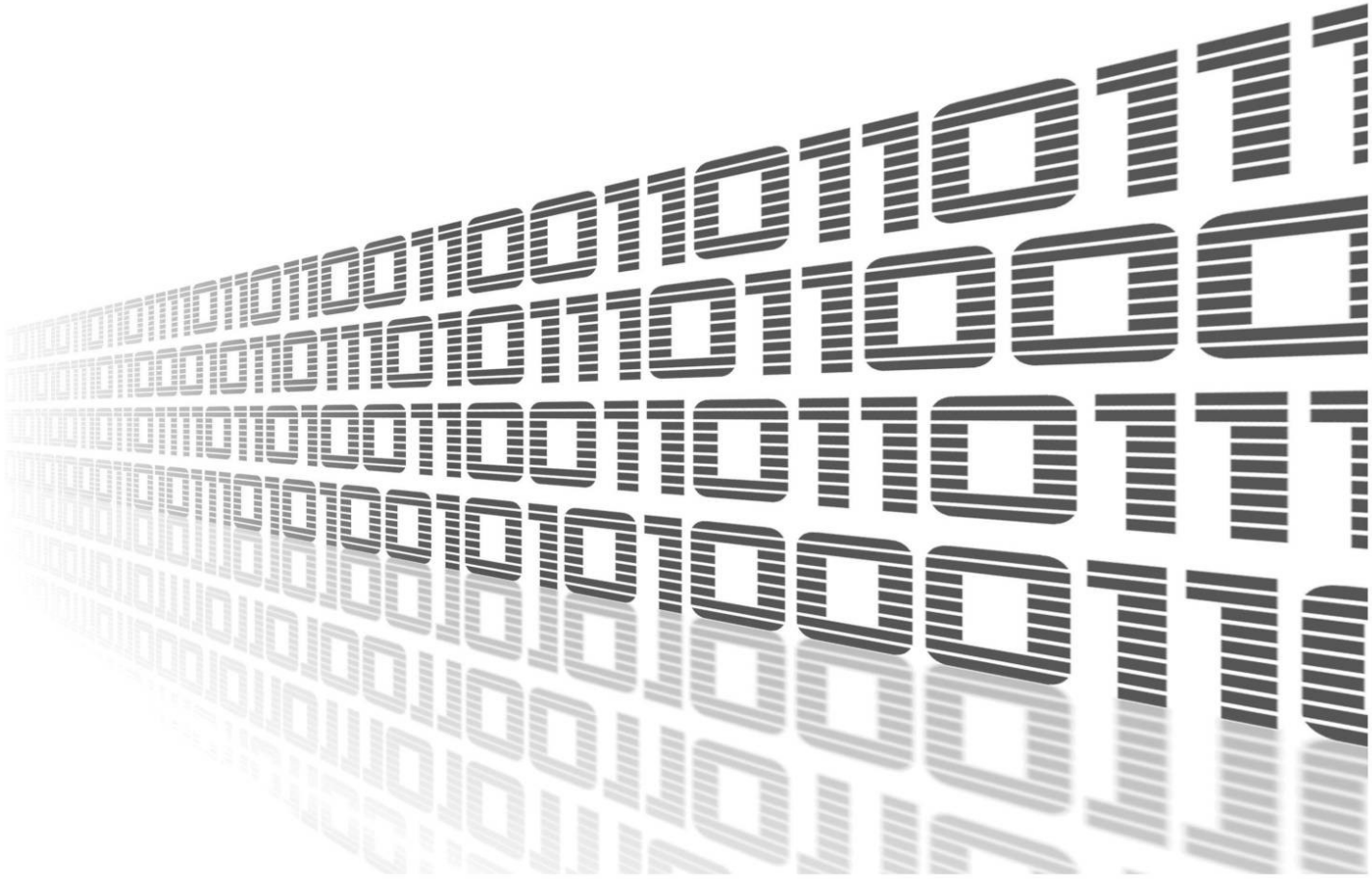
ADVANTECH

RouterApp

IO Control



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Used symbols

Important

Important — Indicates a risk to personal safety or potential damage to the router. Follow these instructions precisely to prevent injury or equipment damage.

Warning

Warning — Highlights conditions that may cause malfunction, loss of data, or unexpected behavior in specific situations. Read carefully before proceeding.

Info

Info — Provides helpful tips, context, or references that improve understanding but are not strictly required to complete the task.

Code Example

```
Code Example - Copy-pasteable configuration snippets or CLI commands.
```

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1. Module Description

Warning

Important Notice Regarding Firmware Version 6.6.0 and above

- **Feature Integration:** As of router firmware version 6.6.0, the functionality of this Router App is now included as a standard feature. It can be accessed via *Configuration* → *Services* → *SMS*.
- **Recommendation:** On routers running version 6.6.0 or newer, it is strongly recommended to use the native firmware feature and uninstall this app to prevent potential conflicts.
- **Migration Advisory:** When transitioning from this app to the integrated feature, you must carefully review the new settings. Default values and available options may differ, and failing to adjust them could lead to unexpected reboot behavior.

The *IO Control* Router App provides a simple interface for monitoring and controlling the state of binary inputs and outputs (I/O) on Advantech routers. Binary I/O ports are used to interact with external devices, allowing the router to read simple on/off states (e.g., from a switch or sensor) and to control external devices (e.g., activate a light or relay). This module specifically enables remote control of a binary input via SMS messages.

2. Installation

The *IO Control* Router App is installed via the router's web interface. Navigate to the *Customization* → *Router Apps* page. Here, you can use the *Manual Installation* section to upload and install the app package file (`*.tgz`).

Once the installation is complete, the *IO Control* module will appear in the *Installed Apps* list. Clicking on its name will open the app's web interface, which includes the *Status* and *Configuration* pages detailed in the following sections.

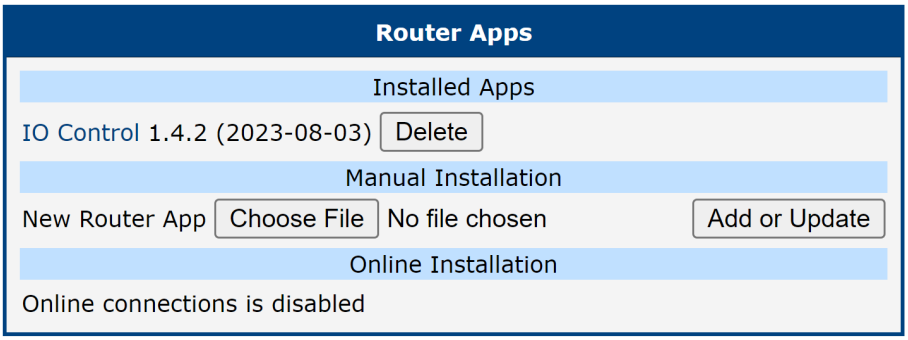

Figure 1: Router Apps

3. Usage and Configuration

3.1 Overview

The *Overview* page displays the current state of the router's binary inputs and outputs. By default, inputs are active (*On*) to monitor external signals. Outputs are inactive (*Off*) by default but can be manually activated by clicking the corresponding *On* button.

The figure below shows an example of the *Overview* page for a router with two binary inputs and two binary outputs.

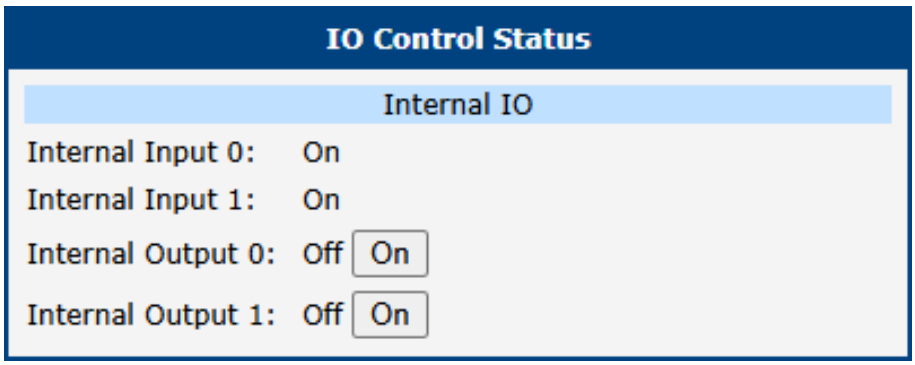

Figure 2: IO control overview page

3.2 System Log

The *System Log* section displays system-level messages from the router, which can be useful for diagnostics and monitoring the behavior of the *IO Control* app. Note that this is the same log available via the main router menu at *Status* → *System Log*.

3.3 Configuration

The *Configuration* page allows you to enable and configure SMS notifications for binary input state changes. These settings determine which phone numbers receive alerts and the content of those messages.

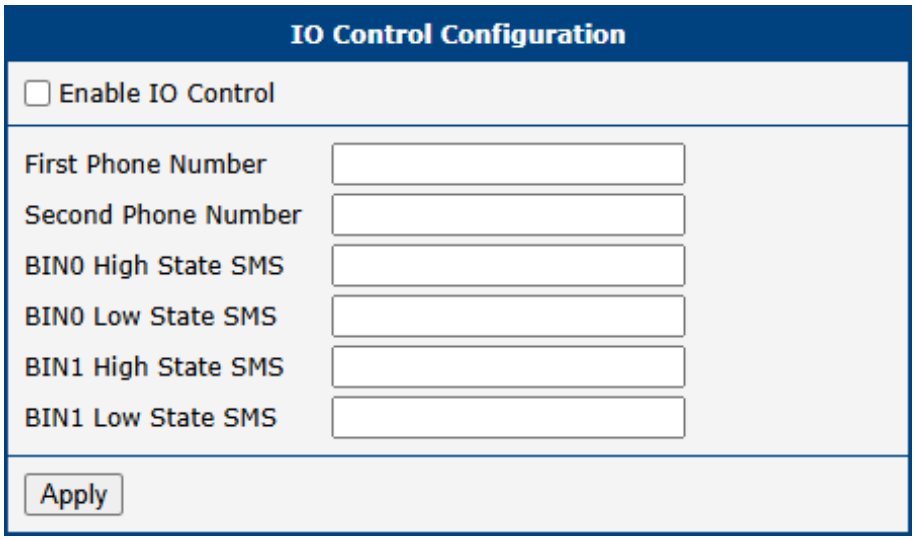

Figure 3: Global configuration page

Item	Description
Enable IO Control	Check this box to enable the IO Control functionality. When enabled, the router will send an SMS notification when the state of a monitored binary input changes.
First Phone Number	The primary phone number to which an informational SMS will be sent upon a binary input state change.
Second Phone Number	An optional, secondary phone number to which an informational SMS will be sent.
BINx High State SMS	Define the text of the SMS message to be sent when binary input number *x* changes to a high (active) state.
BINx Low State SMS	Define the text of the SMS message to be sent when binary input number *x* changes to a low (inactive) state.

Table 1: Description of configuration settings

Info

This Router App is designed to send SMS notifications based on changes to binary input states. For direct remote control of binary outputs or for more advanced I/O automation, consider using shell scripts or other dedicated Router Apps.

4. Related Documents

[1] IO Control Manual Pages: `https://sming.readthedocs.io/en/latest/_inc/Sming/Libraries/IOControl/index.html#`

You can obtain product-related documents on *Engineering Portal* at *icr.advantech.com* address.

To get your router's *Quick Start Guide*, *User Manual*, *Configuration Manual*, or *Firmware* go to the *Router Models* page, find the required model, and switch to the *Manuals* or *Firmware* tab, respectively.

The *Router Apps* installation packages and manuals are available on the *Router Apps* page.

For the *Development Documents*, go to the *Development* page.