



Remote Access and control

Document NO 1.0

Remote access and control from iOS smart bus G4 application

Smart industries

Smart group 2012

Introduction

The smart bus G4 apple iOS application controls the system by only installing the proper database and connecting to the same network that the RSIP Module is connected to, then the iOS device will send its commands in form of UDP broadcast to all hosts on the network. The RSIP will receive it and interpret it as an S-BUS command to be sent to the modules targeted.

This is the local network control. What if you are outside the home and want to control your lighting, music, AC etc ... You need to tell your iOS device to send its commands to the targeted IP address.

Procedure: (In case if you have a static IP address in your home)

TWO STEPS: 1 – Put your iOS device on Internet mode

2 – Main Router Port Forwarding configuration

1- Configure your iOS device:

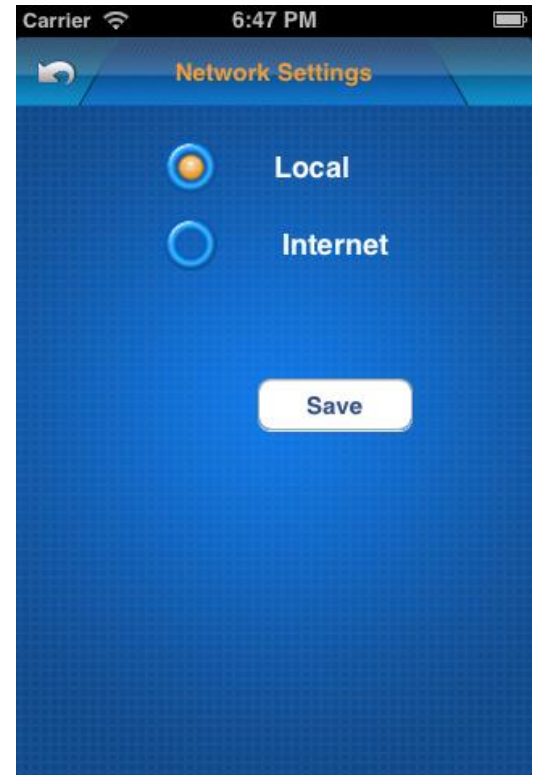
Having Smart bus G4 application installed on your iOS device.

Enter the Main Setup menu in the iOS application by pressing on the G4 logo on the top right corner.

As shown in the snapshot, a main settings page will open. Choose from it network settings.



From the network settings page, by default it will be on local, since it uses your WiFi network to control the S-bus.



Choose Internet to switch to remote access and control mode. An IP address box will open, here you have to put your Main Router's IP address (The router that is connected to the internet directly), which is the public static IP address your ISP provided you with.



2- Configure Router's Port forwarding:

When you register for an Internet account with a static IP address, it means that the whole internet can recognize your router external port (Internet port) using this IP address.

Depending on the Router in hand, you'll be able to find the Port Forwarding page under the main setup or advanced setup tabs.

Check the following example: NETGEAR N750 Router:

Port Forwarding / Port Triggering

Please select the service type.

- Port Forwarding
 Port Triggering

Service Name

FTP

Server IP Address

192 . 168 . 0 . Add

	#	Service Name	External Start Port	External End Port	Internal Start Port	Internal End Port	Internal IP address
<input type="radio"/>	1	DVR TCP	3357	3357	3357	3357	192.168.1.244
<input type="radio"/>	2	DVR TALK port	3360	3360	3360	3360	192.168.1.244
<input type="radio"/>	3	DVR UDP	3356	3356	3356	3356	192.168.1.244
<input type="radio"/>	4	Anothe http	8080	8080	8080	8080	192.168.1.244
<input type="radio"/>	5	FTP	20	21	20	21	192.168.1.241
<input type="radio"/>	6	remotsmart	6000	6000	6000	6000	192.168.1.245

Edit Service

Delete Service

Add Custom Service

The table shown above shows the Port forwarding that has been configured to this router before.

For example: all traffics received on TCP port 3357 is going to be forwarded to the internal local IP address of the DVR which is 192.168.1.244

The RSIP Module listens to data sent on UDP Port 6000, so you should forward the traffics received on the Router port 6000 UDP to the local IP Address of the RSIP.

To add a new port forwarding configuration, you can use presets that is already designed by the Router manufacturer, like FTP, IP IPHONE and NETMeeting. They're only predefined profiles for some common ports and its applications.

You can also add custom configuration like shown in picture below:

The screenshot shows the Netgear SmartWizard router manager interface for an N750 Wireless Dual Band Gigabit Router (model WNDR4000). The page is titled "Ports - Custom Services". A configuration form is visible for a service named "DVR HTTP". The service type is set to "TCP/UDP". The external starting and ending ports are both 8080. The internal starting and ending ports are also 8080. The internal IP address is 192.168.1.200. Below the form is a table of currently attached devices with columns for IP Address and Device Name.

NETGEAR SMARTWIZARD™ router manager
N750 Wireless Dual Band Gigabit Router model WNDR4000

Select Language: Auto [v] [Apply]

Wireless Settings
Guest Network
USB Storage
Basic Settings
Advanced Settings
Media Server
Content Filtering
Logs
Block Sites
Block Services
Schedule
E-mail
Maintenance
Router Status
Attached Devices
Backup Settings
Set Password
Router Upgrade
Advanced
Wireless Settings
Wireless Repeating Function
Port Forwarding / Port Triggering
WAN Setup

Ports - Custom Services

Service Name: DVR HTTP
Service Type: TCP/UDP
External Starting Port: 8080 (1~65535)
External Ending Port: 8080 (1~65535)
 Use the same port range for Internal port
Internal Starting Port: 8080 (1~65535)
Internal Ending Port: 8080
Internal IP address: 192 . 168 . 1 . 200

Or select from currently attached devices

	IP Address	Device Name
<input type="radio"/>	192.168.1.253	--
<input type="radio"/>	192.168.1.241	SMART
<input type="radio"/>	192.168.1.245	--
<input type="radio"/>	192.168.1.18	83CKN030JFC70I6
<input type="radio"/>	192.168.1.3	HELENS-IPAD
<input type="radio"/>	192.168.1.69	SMART-ANDY
<input type="radio"/>	192.168.1.15	ANDROID-4656E58C3D362D21
<input type="radio"/>	192.168.1.244	--
<input type="radio"/>	192.168.1.11	SMARTSALES
<input type="radio"/>	192.168.1.27	EVAS-IPHONE
<input type="radio"/>	192.168.1.4	APPLE-TV

In this example:

Service Name: Only a remark to remind yourself why you did this.

Service Type: The traffics you are forwarding are using TCP, UDP or if not determined choose TCP/UDP.

External Starting/Ending port: The Range of Ports you want to forward the traffics they're receiving. By putting the same number in both, it means it will forward only one port.

Internal Starting/Ending port: If you want to forward the traffics to different internal port. Check "Use the same port range for internal port" to forward to the same port.

Internal IP address: The IP address of the device you want to forward traffics to. This is in our case the RSIP module local IP address.

For our case:

Service Type: UDP

External starting port: 6000

External Ending port: 6000

Check the "Use the same port range for internal port" option

Internal IP address: The Local IP address of your RSIP EX. 192.168.1.100

After finishing the configuration, when you use the G4 iOS application that has been set to this static IP address, calling your router from the internet, the internet will forward your request to your router directly, and the router will detect that your traffics are UDP data on Port 6000, and it will forward it to the IP Address you provided in the previous configuration, to the RSIP, the RSIP will react to the traffics as if it received it locally.