



Robustel are one of the world's leading manufacturers of industrial quality solutions for the IoT and M2M market. Robustel's portfolio of award-winning solutions is comprised of: Wireless Modems, Routers, Gateways, EDGE Computing, Cloud Software and End-to-End IoT solutions.

Robustel's APP Center provides customers with the access to Applications that can be added into R2000 or R3000 routers to enhance and customise the behaviour of the router to suit the needs of a specific application or project.

In some instances, this capability can remove the need for an additional Embedded PC, significantly reducing overall project costs. This is especially true of the R3000 series platform where processor, storage and RAM resources for customer applications is significant.

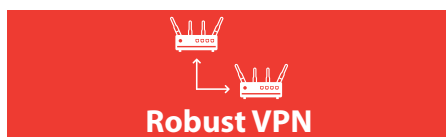
Customers can either write their own applications by following the extensive SDK guide supplied by Robustel or, for qualified projects, Robustel will provide APP development completely FREE of charge.

## SYSTEM



RobustOS supports Multi-language. Each language will be developed to an App and needs to be installed in the router.

## VPN



RobustVPN 2.0 is a secure and powerful platform designed to establish virtual private network between users and devices.



Screenshot from App Center page of Robustel router running 'RobustOS'

## VPN Protocols



DMVPN (Dynamic Multipoint VPN) is a dynamic VPN Tunnel technology. DMVPN uses the NHRP (Next Hop Resolution Protocol) technology to analyze the end address of VPN Tunnel under the network environment. The Multipoint GRE Tunnel port to establish Multipoint GRE over IPSec VPN Tunnel. DMVPN is based on IPSec VPN and GRE VPN.



In computer networking, L2TP (Layer 2 Tunneling Protocol) is a tunneling protocol used to support virtual private networks (VPNs) or as a part of the delivery of services by ISPs. It does not provide any encryption or confidentiality by itself. Rather, it relies on an encryption protocol that it passes within the tunnel to provide privacy.



PPTP (Point-to-Point Tunneling Protocol) is a method for implementing virtual private networks. PPTP uses a control channel over TCP, a GRE tunnel to encapsulate PPP packets.

## SERVICES



### Sniffer

The Sniffer Application included in all Robustel routers, allows the user to capture the actual data travelling over the 3G/4G network for subsequent analysis in the amazing "Wireshark" application software. The combination of these free capture & analysis tools can help sanity check that only the data that is meant to be transmitted / received is being sent and sources of erroneous communications can be prevented.

This capability can save thousands of dollars in airtime bills, and help to find bugs in client / server communications prior to a mass deployment of 3G/4G routers.



### Captive Portal

Captive Portal is a webpage authentication setting. A captive portal is a 'Landing' web page that is shown to users before they gain broader access to URL or http-based Internet services. Often used to present a Landing or Log-In page, the portal intercepts observed packets until the user is authorized to launch a browser session.

After being redirected to a web page which may require authentication, payment, acceptance of EULA/acceptable use policies or other valid credentials that the host and user agree to, the user is granted conditional Internet access.



### QoS

QoS (Quality of Service) is a network security mechanism. To quantitatively measure quality of service, several related aspects of the network service are often considered, such as error rates, bit rate, throughput, transmission delay, availability, jitter, etc. QoS is designed to solve these problems mentioned above. QoS is particularly important for the transport of traffic with special requirements.



### DATA-Guard V2

DATA-Guard v2 is a ground-breaking new application that can be used in all Robustel routers to solve some very real problems with cellular communications systems.

Key features of the APP include:

1. Smart-Reboot – Helps to solve the age-old problem of Roaming SIMs not roaming!
2. DATA-Guard – provides a "hard cap" on data use to reduce the risk of Bill-shock
3. Enable/Disable data connection with SMS any time from any location



### DDNS

DDNS (Dynamic DNS) function allows to alias a dynamic IP address to a static domain name, designed for user who's ISP does not assign them a static IP address to use a domain name.

This is especially useful for hosting servers via your connection, so that anyone wishing to connect to you may use your domain name, rather than having to use your dynamic IP address, which changes from time to time.

This dynamic IP address is the WAN IP address of the router, which is assigned to you by your ISP.



### WLAN Multi AP

WLAN Multi AP function is used to add more APs. For example, one AP can be set up for guests and the second AP for personel. Using the other applications, one can set up a captive portal on the guest AP or limit the data usage per user.



### VRRP

VRRP (Virtual Router Redundancy Protocol) is a fault-tolerant protocol. VRRP protocol can help to constitute a router backup group in a LAN, the VRRP router is equivalent to a virtual router.

A host in LAN only needs to know this virtual router's IP address and doesn't need to know the IP address of the specific router. When setting the host's default gateway as the virtual router's virtual IP address, host can use the virtual gateway to communicate with the external network.



### SNMP

SNMP (Simple Network Management Protocol) is a widely used protocol for monitoring the health and status of network equipment (e.g. routers). SNMP monitor devices can be a computer, router, printer, ups or any other SNMP device.

SNMP in router implements SNMP v1, SNMP v2c and SNMP v3. We can download the MIB file directly from web interface. MIBs are Management Information Bases that describe the data structures that can be requested from SNMP device. We can also manage router via SNMP tool with a MIB file.



### RobustLink

RobustLink is a cloud-based platform to help you configure, monitor and control your remote Robustel products in real time.



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