



Image shown is a representation only

DR-6018 SUBSTATION GATEWAY

PRODUCT OVERVIEW

The DR6018 wireless router is engineered for high-speed networking. This device adopts an ARM-based architecture and serves as a single-board edge computing platform with integrated AI modules. Developed, manufactured, and supported in India as part of the Make-in-India initiative, the router features an industrial-grade chipset, built-in 4G/LTE, and optional 5G support modules. It incorporates a hardware watchdog design and automatic disconnection to ensure constant online connectivity.

This platform is designed with flexibility to meet customized requirements and consider cost factors. The DR6018 is a comprehensive solution that includes hardware, software, OS, libraries, drivers, and tool chain necessary for developing specific products and solutions. Within this unit, we have integrated a high-end enterprise-grade router edge unit featuring a Quad-A53 processor subsystem running at 1.8GHz. It includes a built-in Wi-Fi 6 subsystem and networking subsystem, catering to 802.11ax, LTE CAT 4/5, 5G, Edge, Hotspot, VPN, and ACL (Access Control). The router supports various VPN protocols such as PPTP and L2TP, along with PPPOE, DHCP, and other network protocols. It finds extensive application in wireless networking, video monitoring, ATM fast networking, water conservancy monitoring, vehicle networking, environmental monitoring, and other domains.

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HARDWARE SPECIFICATIONS:

Configuration Information

Flash / DDR2: Default 32MB (Optional for 8/16/64MB)/ Default Quad Core A-53 Qualcomm Processor & 4GB DDR DDR4 (Optional for 1/2GB)

Interface

1 10 / 1000M WAN ports, / 1 x GE SFP Combo 3 x GETX / 1 x Combo (2.5 GB) 4 x GE TX

Wi-Fi

802.11ax 2X2/2.4G/HE40, 2X2/5G HE80, supports for 802.1ax

Power switch

Switch button of machine power supply/ POE (Optional) 1st GE TX interface

Sim Slot/other Features

2/ Buzzer, RTC, Watchdog Timer, Temp Sensor, Network Bypass

4G/5G

Supports/ Mini PCIe/ M.2 (Optional) 2

USB 2.0/3.0 2/ Console

USB 2.0/3.0 2 / RS232 (RJ45)

Power

1x DC Jack Connector: 12V/ Reset -1 , WPS -1

Other

Packaging Accessories

Warranty card, router, user manual

Use Environment

Operating temperature: - 10°C to 55 °C

Storage temperature: - 40 °C to 70 °C

Working humidity: 10% to 90% RH without condensation

Storage humidity: 5% to 90% RH without condensation

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SOFTWARE SPECIFICATIONS:

VPN

GRE, IPsec, Tunnel (IPsec client, IPsec server)

VPN Management

Two kinds of VPN connections

Supports IP-Sec

PPTP/SSTP/GRE

Strong

Pre Shared Key + certificate
DPD

PSK and certificate for IKE v1
DPD + DPD and its action are available, (clear/reset/hold/restart for DPD)

Encryptions (phase1) ESP

3des/des/Aes-128/192/256-CBC, Aes-128/192/256-GCM, blowfish, 3des, cast-128, Aes- (128/192/256)-GCM (in all three bit-64,128,192), blowfish (in all three bit-256,128,192),cast-128

Encryptions (phase2) ESP

3des/des/Aes-128/192/256-CBC, Aes-128/192/256-GCM, blowfish, 3des, cast- 128, Aes- (128/192/256)-GCM (in all three bit-64,128,192), blowfish (in allthree bit-256,128,192), cast-128

Hashing (Phase1)AH

MD5/sha1/sha256//sha384/sha512/Aes-Xcbc

Rich VPN

Hashing (Phase2)AH
DH groups (Phase1)
PFS groups (Phase2)
Local/Remote Network/identifier

MD5/sha1/sha256//sha384/sha512/Aes-Xcbc
1/2/5/14/15/16/17/18/19/20/21/22/23/24/28/29/30
On-off/1/2/5/14/15/16/17/18/19/20/21/22/23/24/28/29/30
yes/Local/Remote identifier- ANY/IP/FQDN, LOCAL- PEER (multi subnets)

Peer GW
NAT traversal
Negotiation Mode
Site-to-Site VPN

Yes- Domain dynamic and static IP
Yes
Main/Aggressive (like v2 modes)

VPN traffic Failover

Supports Site-to-Site VPN (to supports ANY remote network, Bypass local network)
Seamless switchover between two different types of connectivity Link fail on (packet loss, latency, jitter, delay)

VPN traffic MANAGEMENT

Seamless switchover between two different types of connectivity (eg. Ethernet & LTE) (Internet-internet, Internet-MPLS, MPLS-MPLS)Same destination (traffic) VPN IPsec to load-share frommultiple source linkon link availability Basic firewall/ACL/Supports firewall, MAC address black and white list management Supports IPsec VPN>site-to-site VPN, /remote VPN/dynamic VPN/VPN shift on link brownout and load-share

Load ShareFailover

Session-Based Load Balancing
Packet-Based Load Balancing
Load balancing interface supports PPPoE, DHCP,

NATed inspection of traffic and supports Session Persistence
Per-packet Load Distribution on multi-link
the internet or LOCAL breakout traffic defined for a particulardestination/ANY destination to be sharing load on multi-link (per packet/perflow)

ECMP load share

Load balance flows (sessions) to the same destination overmultiple equal-costlinks.- active mode or active passive mode with failover

VRRP (Option) Optional
Route Wi Fi Can be used as AP and client;

Static Route, Default Route, flap static route ipv4 and Ipv6
RIP v1 & v2, OSPF, BGP 3 (xx), ISIS,BFD, RIPng, OSPFv3, IS-ISv6,BGP4+ IPv6 ND

SNMP
LAN IP

Supports V1, V2.
Supports multi-LAN IP address, supportstwo IP address Optional, 802.11b/g/n; 300Mbps.

Wi-Fi

Can be Used as AP and client: Server Applications, wireless up to 50 PC users

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SOFTWARE SPECIFICATIONS:

Features

Firmware update	supports firmware update locally or remotely (centrally)
Syslog	local and remote
DHCP Server	Yes
DNS, secure DNS	DNS proxy; and multiple secure DNS
NTP	Real-time clock (NTP, supports update with defined hours);
WAN, LAN Protocol	WAN/LAN/Memory statistics;

Software

Protocols	TCP, UDP, SMTP, POP, ICMP, FTP, PPP, PPPoE, DHCP, DDNS, DNS Secure/Proxy DNS, WPS, DMZ,NAT, xDSL, NTP, QoS, etc.
Network Protocols	IPv4/IPv6 supports
Ipv4 and Ipv6	IPv4/IPv6 supports for routing and tunneling
Layer-2	VLAN (802.1Q)
Basic QoS supports	Bandwidth Control (or) rate-limiting
QoS	Traffic Shaping
	PING
	Traceroute
	NS lookup
Diagnostics	Debug
Firewall -WIFI	Supports 64/128 bits WEP, 802.1x, WPA, and WPA2 Supports WPA1/2 - PSK Supports EAP - TLS, TTLS, LEAP, PEAP TKIP, AES encryption Supports access with user name & password. Supports access control base WAN/LAN interface Supports access control base source IP address
Firewall	Defense DOS attack, supports SYN flooding, IP surfing, ping of Death, fragile, Supports PAP & CHAP Supports IP filtering Supports NAT/NAPT/Port forwarding/DMZ

Security

Security (filter)	Access Control List (ACL) MAC Filters
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ADVANCED FIREWALL FEATURES

State-full Packet Inspection (SPI) VPN Pass – through

Certifications	RADIUS Client, CA etc.
Remote Access	Web GUI (HTTPS) (or) SSHv2 CLI for remote management
Zero Touch Provisioning	SNMP or MQTT, REST API
EMS/NMS	Device supported in NIMBUS NMS for analytic and Management , snmpAND BASIC REST API
Syslog	Log local/ upload to external syslog server

Management

Local or AAA (Radius)	Easy to use and management: Web/Telnet/SSH/CLI, supports remote, management
Local Access	
WAN Link Health Check	Periodic WAN Link Health Check like ICMP, ping, TWAMP, packet loss, jitter, delay, signal strength etc.
Bandwidth & Usage Statistics	The system shall support to display interface Bandwidth & user Usage Statistics - Mbps/Gbps
Device Management	WEB interface (Internet Explorer v6 or Later; Mozilla Firefox v1.5 or Later, or other Java-enabled Browsers, Chrome, Opera, Safari)

ABOUT US

Digital Reach enables the IoT devices to interconnect the embedded systems to the internet. The IoT devices are fully programmable as per customer requirements and it can be deployed in nearly all the areas like Manufacturing, Energy & Utility, Health Care, Home Automation, Retail etc. With our expertise in embedded hardware development, embedded software development, system integration, and project execution, we bring in our experience, commitment and team work to exceed our customer expectation in every customer engagement.

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