

# IAR150<sub>2s</sub>

## DSL/3G Mobile Access Router

THE  
KENTON  
GROUP

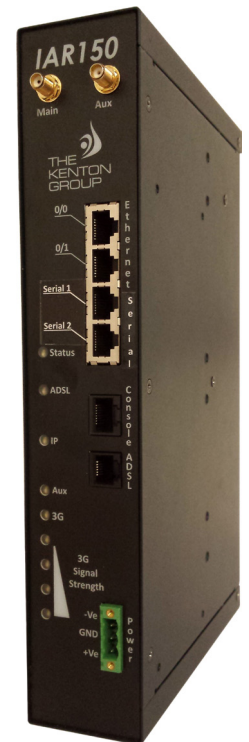


### High Speed Resilient Access

- The 150<sub>2s</sub> Multi-Service Access Router delivers advanced data services over ADSL2+ and VDSL networks with automatic embedded 3G mobile data backup.
- Kenton Accessnet™ SIM provides reliable and secure connectivity on to any 3G network available.

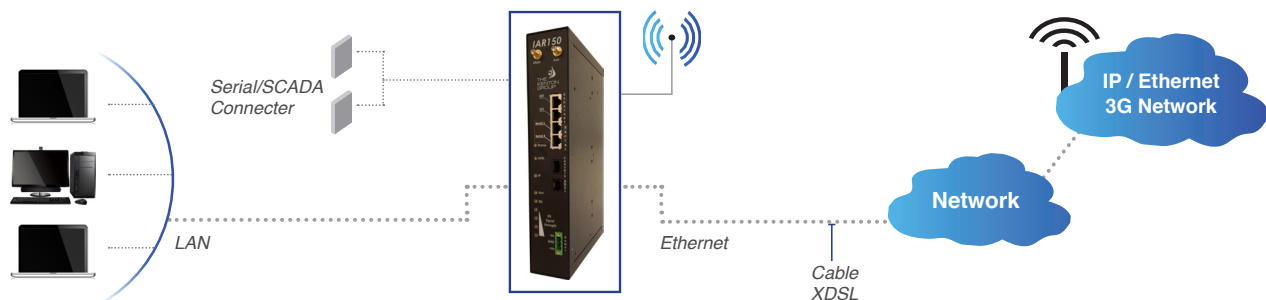
### Full Service Gateway

- Local networks need both wired and wireless access to support all types of services in a secure and reliable manner in one box, they need a full service gateway. Based on the OneOS software, the 150<sub>2s</sub> is a full service gateway for resilient data and voice applications.
- The 150<sub>2s</sub> provides secured Internet access through a stateful inspection firewall. Secure connection through the internet to remote equipment and databases can be set up via IP VPNs. It provides best-in-class IP Quality of Service features including real-time processing of high priority, delay sensitive applications and guaranteed bandwidth for selected flows.
- Each of the 2 LAN ports can be reserved for a server. Specific policies can be applied per port.
- The 150<sub>2s</sub> series with its metal enclosure is designed for industrial mounting where space and access are a premium, in the utility, transportation and defence industry where availability with durability are paramount.
- The 150<sub>2s</sub> uses Industry standard Command Line Interface (CLI) to facilitate configuration management for the service provider's technicians. Several auto discovery and update features make the network roll-out straightforward allowing the installation of units with a standard configuration.
- The 150<sub>2s</sub> is supplied with 2 serial interfaces. The first is a fixed RS232 port the second is software definable to support RS232/422/485. These ports can be defined to support bit rates from 9.6kbps. Each port can be configured in either point to point or point to multi point operation.



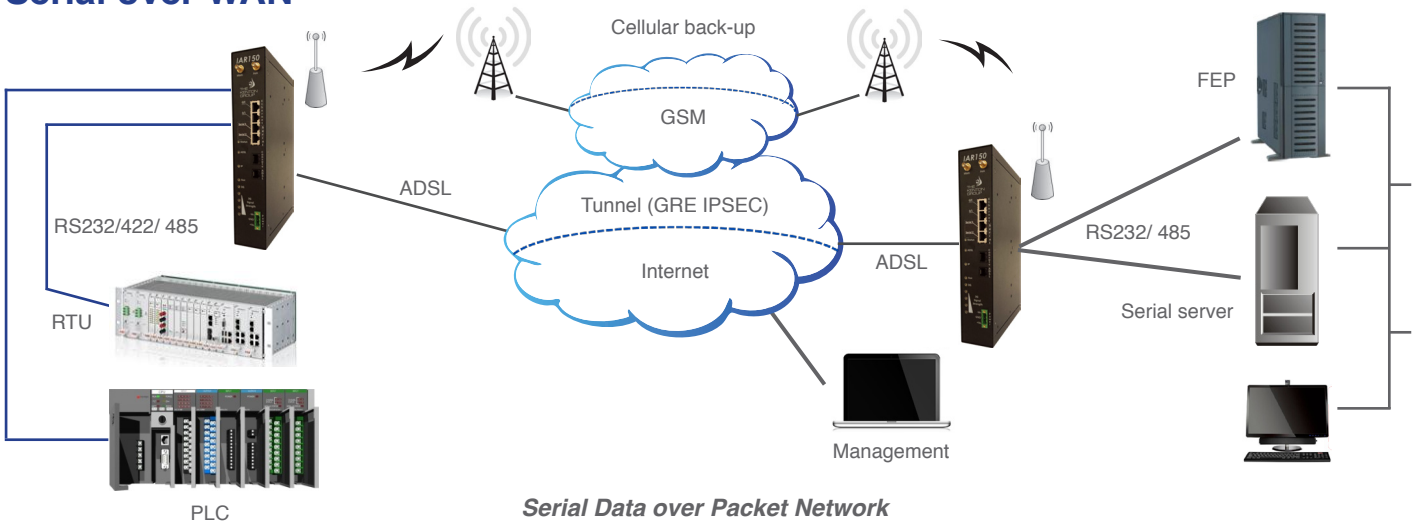
### PRODUCT HIGHLIGHTS...

- ADSL2+ up to 27Mbps
- Sim 3G failover for fixed line Broadband
- High Performance, Resilient Fiber-Like performance
- Integrated 2 Port 10/100 Base-T switch
- Supports MODBUS Slave & Master Gateway
- Wide range DC power input
- Two fixed serial RS232 ports
- Low Delay and Jitter for Voice and Video Transmission
- DIN rail mounting TS35
- External 3G antenna options
- CLI Configuration
- Single face access
- SNMP V1/V2C/V3
- Software selectable serial port RS232/425/485
- Rapid Service Deployment

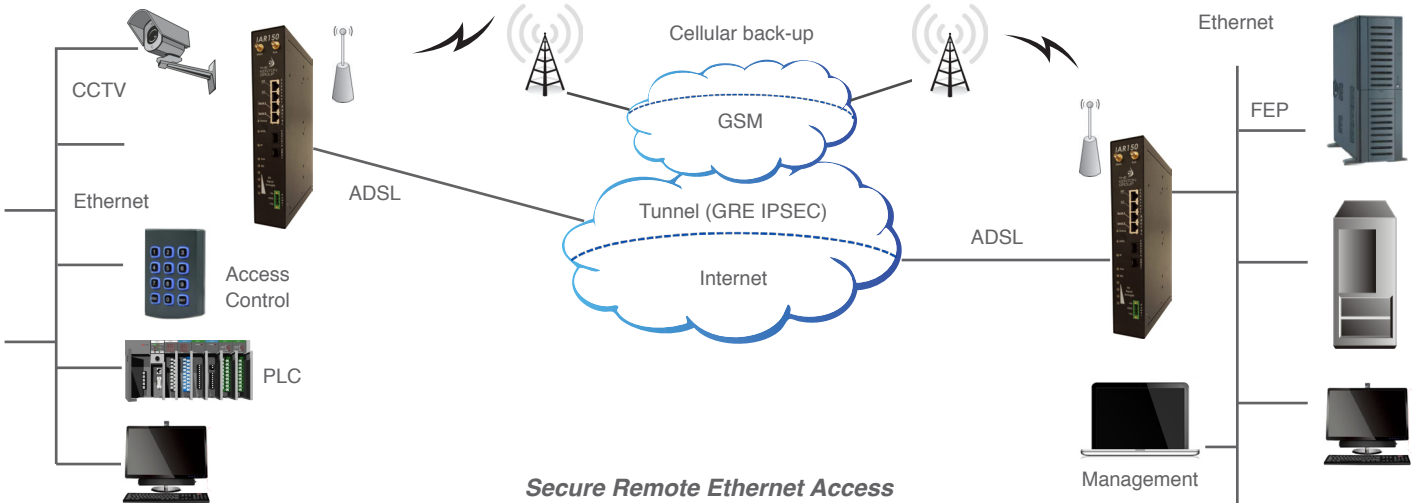


# ROUTER APPLICATIONS

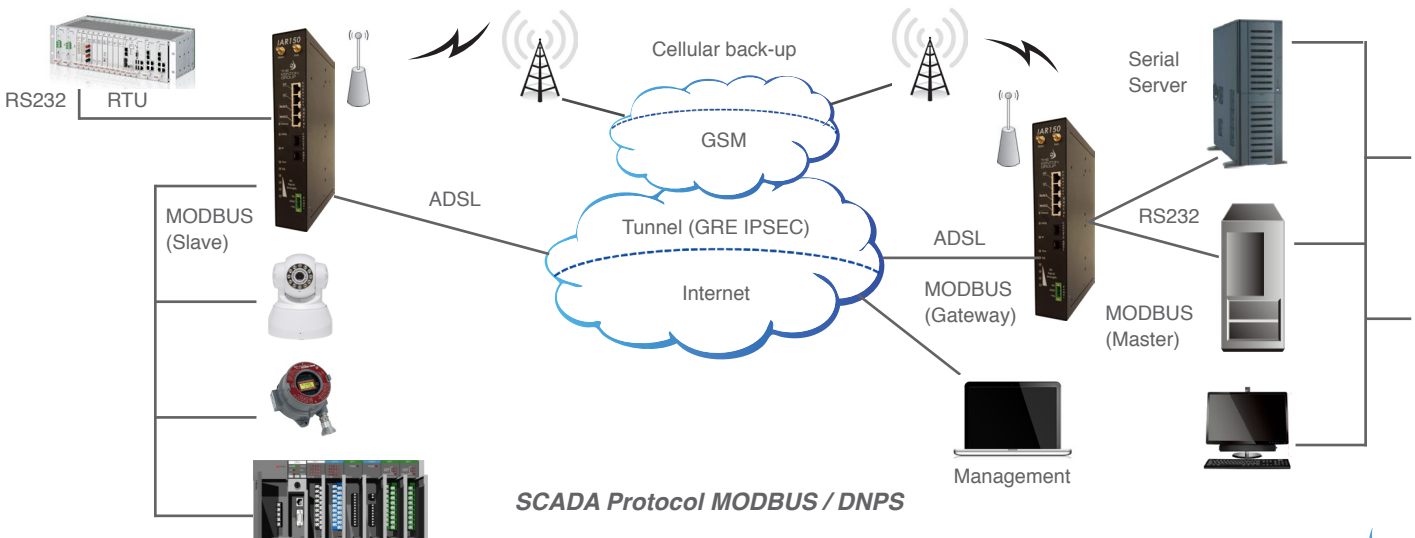
## Serial over WAN



## Ethernet over WAN



## SCADA over WAN



# SPECIFICATION

## Basic hardware

- 1x DSL (ADSL2+/VDSL) Interface card or 1x ADSL2+ Interface
- Fast Ethernet 2 port switch
- 1x console port
- IPsec encryption accelerator for DES, 3DES, AES

## VDSL2/ADSL Interface card and ADSL2+ Interface

- Dual chip VDSL2 & ADSL2+
- VDSL2 according to G.993.2
- G.lite, G.DMT Annex A (ADSL over POTS)
- G.DMT Annex B (ADSL over ISDN, U-R2 compatible)
- ADSL2/2+ G.992.3 (including annex L - annex M) G.992.4, G.992.5

## ATM (for ADSL Interface)

- Up to 8 PVCs
- OAM-F5 (send/receive): loopback, continuity check
- Shaping: UBR, VBR-NRT, VBR-RT, CBR
- Encapsulation (LLC or Mux): IP, PoE, PPP, PPOE

## EFM (for VDSL Interface)

- EFM IEEE 802.3 2BASE-TL (aka 802.3ah) (for VDSL)
- ADSL/VDSL auto-sensing

## Ethernet Interfaces

- 10/100Mbps, half/full duplex with auto-sense
- Automatic cross-over

## Wireless Radio Interface

- Quad band EDGE/GPRS (850/900/1,800/1,900 Mhz)
- Dual band HSDPA/UMTS (900/1,900/2,100 Mhz)
- Dual band HSUPA/UMTS (900/1,900/2,100 Mhz)

## Bridging and VLANs

- Bridging and Integrated Routing and Bridging (IRB)
- VLAN tagging and untagging
- Multiple VLAN IDs per port
- 802.1p priority tagging, TOS/COS and COS/TOS mapping

## IP Addressing & Routing

- NAT/NAPT: static/dynamic NAT, NAPT, selective NAT, twice NAT
- NAT Application Level Gateway (ALG) for VOIP: SIP, H.323
- DHCP client, server, relay, DNS proxy
- Routing protocols: RIP v1/v2, OSPF v2, BGP v4
- Multicast Routing: PIM-SM and IGMP v2/v3
- Policy-Based Routing
- VRRP
- Server load balancing

## IP Quality of Service

- IP Classification and priority (DiffServ)
- Class-Based Queuing (CBQ), CB-WFQ on LAN/WAN interfaces
- Low Latency Queuing, fragmentation and interleaving
- Policing and remarking
- RED, WRED, ECN

## Security

- Stateful packet inspection firewall
- Standard and extended access lists
- Session monitoring and limiting
- Configurable timers per port and application
- All firewall log messages can be buffered, viewed or sent to a Syslog Server

## IP VPNs

- Tunnels: IPsec, GRE, IPIP, L2TP
- IPsec encryption: AES, DES, 3DES\*
- IPsec tunnel and transport mode: IKE and PKI, AH and ESP with SHA1 and MD-5 hashing
- UDP-based encapsulation for NAT traversal
- IKE with pre-shared secret, symmetrical or client-server mode
- Perfect Forward Secrecy
- DNS server update protocol: DynDNS

## PPP

- PPP over ATM, PPP over Ethernet (PPPoE) on Ethernet, EFM (VDSL2) and ATM (ADSL2+) interfaces
- Automatic IP address assignment
- MLPPP bonding with fragmentation and interleaving
- PAP/CHAP authentication
- IPCP subnet mask
- MAC address based authentication

## Management

- Industry standard Command Line Interface (CLI)
- Web-based GUI for LAN, and IBC settings by end-users (can be turned off)
- SNMP V1/V2C/V3
- Support of user privileges
- File upload/download via FTP/TFTP
- QoS measurement probe
- Traceroute, ping, extended ping
- User authentication via RADIUS or TACACS+
- RADIUS accounting
- Global statistics screens (console, web-based)
- Event and trace buffering
- Syslog client
- Flow capture and decoding
- Interface RS232-RJ45 console port

## 2 Serial Ports

- Port1 fixed RS232
- Port 2 software selectable RS232/422/485
- Port speeds 50bps-230kbs configurable BAUD Rate
- Parity odd, even, mark, space, none
- Flow Control hardware software both none
- Supports MODBUS Slave & Master Gateway

## Environmental

- Temperature range -20 to +55 °C
- Rugged enclosure IP41
- Humidity 95% non-condensing

## Dimensions

- Desktop, wall mountable, DIN rail TS35
- W x H x D: 50 x 275 x 165 mm; Weight: 1.6 kg

## Power

- Wide range DC 20-72V, 30 Watts max

IAR150 1502s Ordering Option:  
AC Power Unit: IAR-PSU-DRAN60-24

