



## Intelligent Resilience Universal System

### Features

- ▶ Automatic Versatile Resilience capabilities (Full or partial Backup)
- ▶ Static & Dynamic Traffic flows balancing
- ▶ Real independent alternative path
- ▶ Transparent Insertion. (no topology change)
- ▶ Ether-Bypass Failure
- ▶ Modular Resilient WAN Port
- ▶ Always-On technologies supported (cellular 3G, xDSL interfaces)
- ▶ Security for VPN environment (embedded hardware encryption, authentication, tunneling IP-Sec, GRE)
- ▶ QoS (DSCP, WFQ, CBWFQ, protocol type recognition...)
- ▶ Statistic reports (traffic analysis and Network performance)
- ▶ Fast Ethernet interfaces
- ▶ SNMP Manageable
- ▶ Remote Power Control (option)



The Controlware-Intelligent-Resilience-Universal-System **IBS CiRUS100** delivers innovative and versatile protection for IP Virtual Private Networks (VPN) as well as Internet infrastructures and services thereby improving service levels for Wide Area Network (WAN) connection services. Utilizing advanced Always-On technology, IBS CiRUS100 provides reliable backup not only of the entire link but also of specific applications and enhanced load balancing features that ensure flexible traffic distribution and rapid Business Continuity in the event of the Customer Premises Equipment (CPE) router, access link or network failure.

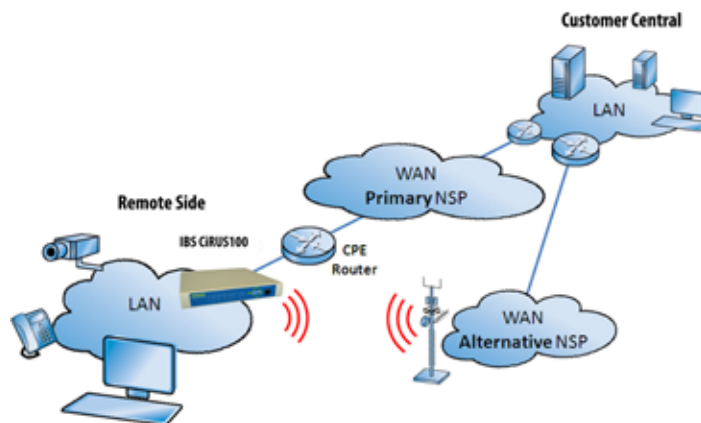
IBS CiRUS100 sits between the Local Area Network (LAN) and the CPE-router. This connection is secured by an Ether-Bypass failure mechanism that maintains the integrity of the network. Through the use of a transparent insertion technique, the IBS CiRUS100 requires no reconfiguration of existing equipment or topology and due to modular hardware architecture many different WAN interfaces are supported.

By using cellular "3G" and EVDO (the most popular cards in the field are supported) technologies for the resilient path, the IBS CiRUS100 is able to provide a physically independent and alternative backup route without any alterations to network topology. State of the art security (permitting privacy, authentication and integrity mechanisms), compression and Quality of Service (QoS) features enable protection of network traffic at all times.

IBS CiRUS100 limits the amount of bandwidth for selected network traffic and applications (Traffic Shaping) and tags specific traffic before entering MPLS networks (DSCP in ToS field). SNMP manageable, the IBS CiRUS100 provides network and traffic measurement information to the Network Management System (NMS). Supporting inbuilt analysis tools, users benefit from up-to-date information concerning the performance and availability of the network.

IBS CiRUS100 is a cost effective solution that is ideal for a vast array of secured networking applications and services. The

IBS CiRUS100 ensures investment protection by supporting existing service requirements while providing a platform for protection of future applications and protocols, typically delivering a very short ROI (Return on Investment) period.





## Technical Specifications

### Mother Board

- ▶ 2 x Fast-Ethernet 10/100 BT ports, with Ether-bypass mechanism, RJ45 supporting VLAN (IEEE 802.1 p& q)
- ▶ 1 x Console port, DB9 F
- ▶ 1 x PMC-PCI expansion slot
- ▶ 9 x Front Panel Status LEDs
- ▶ Integrated crypto- processor

### Insertable PMC CARDS (IBS CiRUS100)

- ▶ Wireless WAN cards expansion slot for PCMCIA & CardBus
- ▶ ADSL 2+ (Annex A,B, M)
- ▶ 4 x Ethernet 10/100-baseT Switching
- ▶ For other interfaces (ISDN, serial, etc.), contact your sales representative

### Insertable PCMCIA & CardBus CARDS (IBS CiRUS100-W)

- ▶ GPRS, EDGE, UMTS, HSDPA and HSUPA (Sierra Wireless, Option, Novatel, Huawei)
- ▶ CDMA 2000 1xRTT, CDMA2000 EVDO rel0 & revA (Sierra Wireless, Novatel)
- ▶ TDD\_ CDMA and WiMAX (802.16e) ready.

### Console (Supervisor Port)

- ▶ RS-232 at 9600 bps (configurable max 115200 mode 8N1, RJ 45F)

### Dimension and Weights

- ▶ LxWxH: 220x220x30 mm; 1kg

### Power

- ▶ AC External Power Source : AC 110v – 220v; 50/60Hz 45VA

### Environmental Working Conditions

- ▶ Temperature: 5°C to 55 °C
- ▶ Relative Humidity: 5% to 85%

### Certifications

- ▶ CE marketing; RohS compliant; EMI (EMC & EMR), Safety, (UL in progress)

### Protocols & Features

Load Balancing and Backup Features:

- ▶ IP, ARP, transparent insertion
- ▶ Balancing with equal cost routes: Static Routing, RIP I, RIP II, OSPFv2 and BGPv4
- ▶ Balancing with Policy Routing
- ▶ Dynamic DNS

### Secure VPN

- ▶ IPsec encrypted: ESP and AH
  - ▶ IPsec in tunnel mode and transport mode
  - ▶ Encryption algorithms: RC4, DES, 3DES, and AES
  - ▶ Authentication algorithms: SHA-1 and MD5
  - ▶ IKE Protocol
- ▶ GRE tunnels

### Quality of Service

Classification per extended access lists

- ▶ Packet tagging (DSCP)
- ▶ Congestion control: FIFO

### NMS & Configuration

“Command line interface (CLI) on console, Telnet, FTP and SSH-2. Password in the console. User and permission levels. GUI software tools.

SNMP: MIB2 events, logging system. Syslog client.”

### RADIUS Dictionary

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### IBS CiRUS Order Numbers:

- ▶ **01.CIR.00001**  
IBS CiRUS100-W
- ▶ **01.CIR.00005**  
IBS CiRUS100-ADSL2+
- ▶ **01.CIR.00006**  
IBS CiRUS100-E

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