

# vadEDGE™ 4160 | Product Information

## Deployed Communications Solution (DCS)

The new VadEDGE 4160 advanced multi service communications platform provides the same high performance and reliability as one expects from the Vados Systems range of single platform communications devices.

With a greatly reduced form factor, the 4160 still conforms to the inherent principles that are built into all the Vados Systems Deployable Communications Solutions (DCS), that of speed, bandwidth optimisation and simplification of network connectivity. The 4160 product range needs no technical skills to establish a secure communications link, requiring the user to simply turn on the device, enabling the Vados architecture and operating system to connect the user to central applications and services.

### Delivering specialist communication solutions

The 4160 can operate either as a stand alone solution, or when used with the AEP Net Remote encryption device will enable regional and remotely located teams to exploit standard unsecure mobile and wireless networks infrastructures to send and receive IP voice and data traffic up to an including UK Confidential.

The 4160 is particularly suited for emergencies or when deploying staff to destinations where secure remote communications are required to augment existing mobile/wireless telecom infrastructures.



#### Features

- No SW licenses
- Instant shut down
- Flash device for basic boot
- Single 12v DC power supply for both 4160-1 and AEP Net Remote

#### Benefits

- Proven Reliability
- Future Roadmap
- Quick and simple to connect

vadEDGE 4160

# Product Information

## The vadOS operating system

The need to integrate multiple data sources does not have to require a complex and proliferated network infrastructure that is unwieldy and difficult to support. Vados Systems provides a single platform solution that provides all the benefits of reduced capital expenditure, simplified training and engineering resource efficiency.

The core component throughout the entire Vados Systems product range is the vadOS operating system. vadOS recognises the importance of each data stream as dictated by business need and assigns a level of service integrity and quality of service while dynamically managing bandwidth for optimal use. This approach to aggregating and delivering voice and other mission critical application data streams over the most efficient transport mechanism enables our customers to intelligently handle multiple protocol communication requirements with ease.

## vadOS | Functional Specifications

<p><b>Virtual Serial Link Support</b></p> <ul style="list-style-type: none"> <li>Standard: <ul style="list-style-type: none"> <li>Vados V-TEs</li> <li>Frame Relay</li> <li>NNI/UNI, LMI (ANSI &amp; ITU)</li> <li>Switched &amp; PVC</li> <li>TCP/IP PPP (RFC 1331), SLIP</li> <li>TPAD</li> <li>PAP/CHAP &amp; MLP</li> <li>X.25 (1980 &amp; 1984), X.32</li> <li>OSI Transport (Class 0, 2, 3)</li> <li>V.25bis</li> <li>Async port up to 115.2Kbaud (X.3, X.28, X.29)</li> <li>HDLc transparent pass-through</li> <li>Bandwidth management</li> <li>Auto link back-up, speed-detect &amp; Measure</li> <li>Link and Channel bonding</li> </ul> </li> <li>Optional: <ul style="list-style-type: none"> <li>ALC/IPARs</li> <li>X.42</li> <li>SMDS</li> <li>CRC4, Double Frame/Multi-frame</li> </ul> </li> </ul>	<p><b>Common Air Interfaces</b></p> <ul style="list-style-type: none"> <li>3G <ul style="list-style-type: none"> <li>Futures (2008 Roadmap)</li> <li>Bonding of 3G *</li> <li>Dual 3G Links*</li> <li>Priority selection from multiple 3G network selections*</li> </ul> </li> <li><b>IBM Networking</b> <ul style="list-style-type: none"> <li>Optional: <ul style="list-style-type: none"> <li>SDLC</li> <li>QLLC</li> <li>Ethernet DLC</li> </ul> </li> </ul> </li> <li><b>Bandwidth Optimisation</b> <ul style="list-style-type: none"> <li>Standard: <ul style="list-style-type: none"> <li>V-TEs (VADOS Proprietary)</li> <li>IP/UDP Header compression</li> <li>IP/UDP/RTP Header compression</li> <li>Voice-frame multiplexing</li> <li>Link rate limiting/ Link compression</li> </ul> </li> <li>Optional: <ul style="list-style-type: none"> <li>Channel Binding</li> </ul> </li> </ul> </li> </ul>	<p><b>TCP/IP Routing &amp; Ethernet Support</b></p> <ul style="list-style-type: none"> <li>Standard: <ul style="list-style-type: none"> <li>MAC bridging, IP routing</li> <li>OSPF, RIP, RIP2</li> <li>NAT/PAT</li> <li>OSI TP4</li> <li>GOSIP CLNS/CONS</li> <li>BootP Client</li> <li>DHCP client</li> <li>DHCP Server</li> <li>IP/UDP encapsulation with DiffServ</li> <li>Port/Address Filtering</li> <li>Metro Ethernet 802.1p</li> <li>802.1q Ethernet trunk</li> </ul> </li> <li>Optional: <ul style="list-style-type: none"> <li>IPX routing, OSI ES-IS</li> <li>DLC local termination</li> </ul> </li> <li><b>Security</b> <ul style="list-style-type: none"> <li>Optional: <ul style="list-style-type: none"> <li>AEP Net Remote (encryption approved to CESG Enhanced Grade)</li> </ul> </li> </ul> </li> </ul>	<p><b>Management Support</b></p> <ul style="list-style-type: none"> <li>Standard: <ul style="list-style-type: none"> <li>Local async console (RS232)</li> <li>Virtual port for remote access</li> <li>SNMP (MIBs: MIB2 &amp; Enterprise)</li> <li>megaWATCH (SNMP Management)</li> <li>Billing and Accounting</li> <li>Local/Remote configuration, upload, download, TFTP</li> <li>Remote software download, TFTP</li> <li>RADIUS</li> <li>Internal protocol Data scope</li> <li>Menu and Presentation Service</li> <li>Security (Password, address validation)</li> </ul> </li> <li>Optional: <ul style="list-style-type: none"> <li>Auto Configuration Management (ACM) aka: Zero Touch Configuration</li> <li>IBM Netview</li> </ul> </li> <li><b>Terminal Emulation</b> <ul style="list-style-type: none"> <li>Standard: <ul style="list-style-type: none"> <li>TCP Telnet (Client &amp; Server)</li> <li>Transparent Telnet (RFC 1006)</li> </ul> </li> <li>Optional: <ul style="list-style-type: none"> <li>ICL 7561</li> <li>Hitachi T560</li> <li>IBM 3270 (inc.Kanji)</li> <li>Telnet (RFC 1646)</li> </ul> </li> </ul> </li> </ul>
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Optional modules are only included by special order; additional charges may be applicable.

## vadEDGE | Hardware Specifications

The following hardware ports are provided:

Hardware Specification (Data Only)

**Model** 4160-1

**Ports** USB = 4      Ethernet = 1      Serial = 1 (internal port)

NB: Supports Vodafone 3G USB modem adapters, but other 3G Network adapters are available, subject to customer requirements.