Introduction

Vocality’s multi-function routers and multiplexers are used in their thousands in satellite networks worldwide. Vocality has, one by one, taken the core functionalities from these devices and extracted them to produce significantly lower cost, standalone units so operators with a single requirement need can address it with the BASICS unit that suits them.

‘BASICS voice’ is a small device, built to be deployed with fixed and mobile satellite terminals, to add voice functionality with the lowest cost and complexity.

As a SIP ATA it can provide 2 or 4 analogue telephone ports for onward connection into IP networks that support SIP based VoIP such as CISCO Call Manager.

Alternatively, it can efficiently multiplex up to 4 telephone circuits over an IP aggregate to a Vocality hub device at a gateway site.

MAJOR FEATURES

- Mode 1: POTS to SIP Converter
- Mode 2: Vocality Style Satellite Optimised Voice
- Rugged OEM Option
- Bandwidth Optimised Voice
- Small Form Factor
- Low Power
- SIP Compatible
- Cisco MAR Compatible

APPLICATIONS INCLUDE

- Rural Telephony
- Phones into VSAT flyaways and trucks
- Enhance third party routers with voice (such as CISCO Mobile Access Router)
- Add telephone services to iDirect or BGAN terminals
As well as a boxed version, BASICS is also available as an OEM standalone board, with wraparound aluminium heat-jacket, designed for embedding within satellite modems, integrated size-reduced kits or man-packs. With deployment firmly in mind they will fit almost anywhere! All Vocality BASICS devices are designed to cascade together, ensuring a simple method of adding multiple devices together in expanding sites. The 'BASICS voice' device, for example, can be cascaded into a 3 unit stack, delivering 12 voice channels which appear as one stack of units.

**MECHANICAL:**

**STANDALONE ENCLOSURE 68553/BOX**
- Form Factor: Standalone enclosure
- Cooling: Conduction by internal Heat Jacket to case
- Operating Conditions: 0-70degC 0-95%RH non-condensing
- Shock and Vibration: TBD
- MTBF: TBD
- Dimensions: 123 x 136.5 x 26.5mm
- Indicators: 4 blue voice channel status LEDs, 2 blue Ethernet port status LEDs, 1 bicolour red/green status LED, White case LEDs
- Max. Weight: 250g

**Electrical:**
- Line Input Rating: 5V DC@3A
- Consumption(typ): 10W

**Connectors:**
- DC Power: 4-way locking Power Connector
- M&C: 6-way Locking Mini-DIN
- Ethernet: 2 x 8-way RJ45
- Analogue Voice: 4 x 8-way RJ45

**OEM VERSIONS 68553**
- Form Factor: PC104plus card with Heat Jacket
- Cooling: Conduction by Heat Jacket to host
- Operating Conditions: 0-70degC 0-95%RH non-condensing
- Shock and Vibration: TBD
- MTBF: TBD
- Dimensions: 95.89 x 90.17 x 15.1mm
- Max. Weight: 150g

**Electrical:**
- Line Input Rating: 5V DC@3A
- Consumption(typ): 10W

**Connectors:**
- DC Power: Screw-down terminals
- M&C: Via 10-way AMP System-50 RA connector for LEDs/console
- Ethernet: UTP on 10-way AMP System-50 RA connector
- Analogue Voice: 4 pairs on single 10-way AMP System-50 RA connector

**FUNCTIONAL (Common to all Form Factors):**

**M&C Port:**
- Electrical Interface: V.24/RS232 serial
- Format: Async 9600bps (115200bps during software upload), 8, N, 1
- Protocol: Formatted terminal emulation or TTY mode

**10/100base-T Ethernet Ports:**
- Number of Ports: 2
- Presentation: Auto-MDI/X
- Formats: IEEE 802.3i(10base-T), IEEE 802.3u(100base-TX)
- Protocol Support: DNS Client, DHCP Client, Telnet
- Functionality: Vocality IP Aggregate, IP passthrough, SIP voice gateway
- Bridge/Router capability: IP passthrough

**Analogue Voice/FAX Ports:**
- Number of channels: 2 standard expandable to 4 by Feature Key
- Compress: G.723.1 (5.3/6.3Kbps MP-MLQ),
- G.729 Annex A (8Kbps CS-ACELP),
- G.726 (16-40Kbps ADPCM),
- G.727 (16-40Kbps E-ADPCM),
- G.711 (64Kbps PCM) μ-law or A-law
- Relays: DTMF,
- Group 3 FAX relay at 2400-14400bps
- Signalling: MFR1, R1, R2, SS4, SS5, Call Progress
- Echo cancellation: G.168 adaptive (16/32mS tail)
- Coding delay: Per algorithm
- Gain: ± 31dB programmable in 1 dB

**SOFTWARE OPTIONS**

The following software options may be enabled by installing a Feature Key.
1. SWF/4V Activate all four voice ports
2. SWF/SNMP SNMP management option (SNMP v2c & v3 traps)

"BASICS VOICE is a product under continuous development. Information given in these pages is for general information only and is subject to change."