

7 years ago

CHAPTER 2 CONFIGURING THE MULTIPLEXER

Chapter 2

2 Configuring the Unit

2.1 Standard Configuration or Push-Config?

All of the units may be configured manually using a menu system which is accessed using a PC or laptop. The computer can gain access to the menus either serially using the Monitor and Control port or via the Ethernet port using a Telnet session. These techniques may be used to set up both the locally connected unit and also any remote unit that is connected in the network and it relies on complete knowledge of how all of the relevant parameters must be set, against a background of default initial values which help to get the unit working with the minimum number of changes.

As an alternative to the manual approach, V25, V50plus and V150 units may receive their configuration settings automatically from a hub unit using a mode known as "Push-Config". In this case, the hub unit, which may be either a V200 or a V150, contains all.of, the configurations for the clients in the network and pushes them out using a proprietary protocol at start of day. These configurations are entered at the hub on a dedicated menu screen. By default, V25 and V50plus units start up in Push-Config mode and must be configured into Standard Configuration mode in order to be set up manually. Refer to section 4.4 "Push-Config" for details. The primary aim of Push-Config is to remove the need for multiplexer management skills from personnel in the field, whilst retaining the ability to dynamically change network operation. The ultimate aim is for a factory-defaulted multiplexer to be installed at a remote site, and automatically obtain its multiplexer settings when it is connected to the Vocality network. When in Push-Config mode, a remote unit obtains its configuration when it initially connects to a hub multiplexer – therefore only basic serial aggregate connectivity to the hub unit is required in the remote unit configuration.

Note that this feature is an optional enhancement to the existing management scheme. It is intended for remote sites in a hub-spoke type network (i.e. not mesh) where there is a single aggregate link in use at the remote site. A customer may continue with the manual configuration mode (where the remote multiplexer carries its own complete configuration) if the restrictions imposed by **Push-Config** operation are too inflexible.

2.2 The Port Addressing Scheme

Throughout the configuration of the Vocality multiplexer/router products, references are made to nodes, bays, slots and port numbers in the network. By convention, the addressing syntax used is "NODE;SLOT:CHANNEL", where NODE is the Node ID, SLOT refers to a logical grouping of ports, often on the chassis or a particular card and CHANNEL refers to a specific port within a slot. This scheme is

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interpreted according to the physical arrangement of each unit. The details specific to each product are given below.

2.2.1 The Node ID

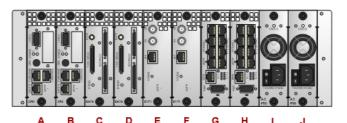
The most important item in the multiplexer's configuration is the Node ID. This is a unique number between 0 and 999 (however, 240-255 are reserved) which specifies each chassis in the network and it must be programmed into the unit before anything else. This is done on the SYSTEM menu – see Section 2.4.2 for details.

Once the Node ID has been programmed, the unit should be restarted since this allows it to clear all previous routing information and assume the new identity without confusion. NOTE: When a remote unit is configured for **Push-Config** (the factory default operation for all multiplexers except the V200 and V150), the Node ID is set via the Push Config Client menu screen. See section 2.4.14, "The PUSH CONFIG CLIENTS menu".

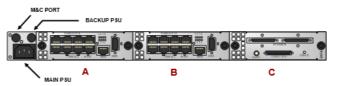
2.2.2 The Slot and Channel Numbers

2.2.2.1 V200 and V150

From the rear, the V200 is laid out as follows



The V150 is laid out as follows:

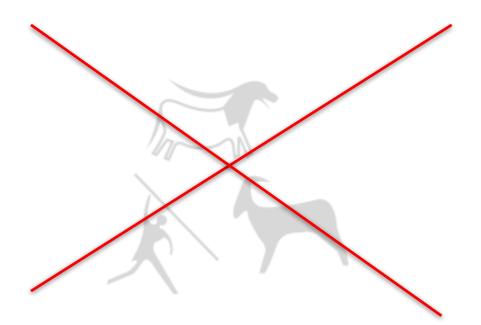


A SLOT is a number which maps a card in a physical bay to a logical slot via the Slot Management menu and CHANNEL is a number which indicates the particular channel number within that logical slot. By default Bay A is mapped to Slot 0, Bay B is mapped to Slot 1 and so on. See the table below:

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Decision



Start move to topic-based authoring

Drivers:

- Enable Online Help alongside pdf user manuals
- Material relevant to several products could be single-sourced
- Possible need for translation into multiple languages



A good topic is

"Self-contained"

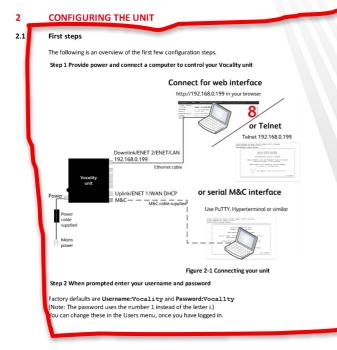
"smallest unit but not a fragment" "maximise reuse" "standalone communication" Mike Hamilton (yesterday)

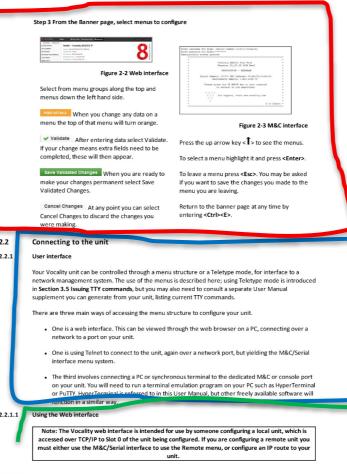


First topics

Also used for in box Quick Start guide

Topic: First steps





Topic: Your UI options

Topic: How to use web interface







Schoolboy errors

- Self-contained = comprehensive
 - Too much text
 - Too many caveats repeating
- Section = topic
 - Too much background knowledge expected
 - Not enough attention to order ...still expecting user to read the whole topic
 - Links to related material at the bottom
 Avoids breaking flow but likely to be ignored
 - Topics with steps/subsections
 Too much at once should be several topics



Today's thesis

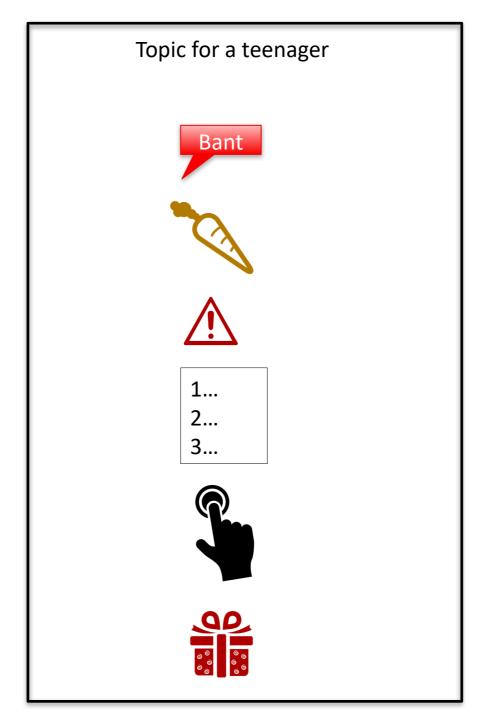


- Topic-based authoring produces material that teenagers would be prepared to read
 - Intuitive search
 - Concise and speedy help
 - Not too much reading



A good topic

- 1. Speak their language
- 2. Hide the vegetables
- 3. Safety first
- 4. Step by step
- 5. Big picture
- 6. Reward



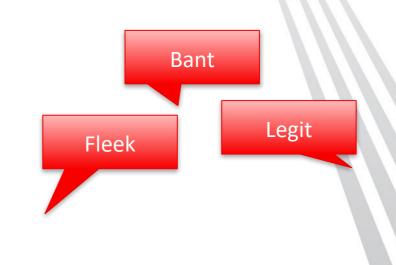


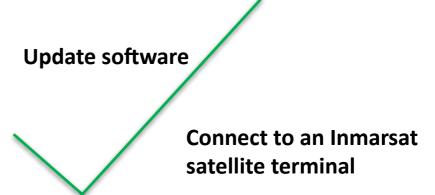
1 Speak their language

- Put all the effort you would have put into an index into topic titles
- Match real user needs and expressions
- Think search terms

The SOFTWARE MANAGEMENT Menu

Use with Satellite Modems

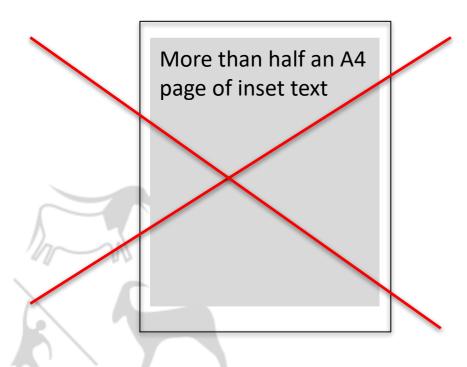






2 Hide the vegetables

- A way around too much text
 - dropdown extra topics or
 - include links to other topics
- Draw them in bit by bit





Step 2 [OPTIONAL] Learn more about the Wi-Fi network

Wi-Fi signal strength indicated by the Wi-Fi icon near the top of the home page. Touch this icon to see brief details, such as name of network. There is more information about how to read these icons on page 10.



3 Safety first

- Don't take the cover off the unit
- 2. Because contact with the card might burn you
- 3. If it has been powered and running for a few minutes



WARNING: Do not open the unit. The unit contains, uses and may generate hazardous voltages. Opening the unit will invalidate the warranty. There are no user serviceable parts. In the event of failure, the unit should be returned to the factory.

WARNING: Opening the unit will invalidate the warranty. There are no user serviceable parts. Opening the unit should be performed by authorised agents only. The unit contains, uses and may generate hazardous voltages.



4 Step by step

1...

2...

3...

- Only what is needed to deliver the topic title
 - If it looks too complex consider whether the topic could sensibly be split
 Section 5 F

Concise

- Standard Technical English rules
 - http://www.asd-ste100.org

Section 5 - Procedures

Sentence length

RULE: 5.1 Keep procedural sentences as short as possible (20 words maximum).

RULE: 5.2 Write only one instruction per sentence.

RULE: 5.3 Write more than one instruction per sentence only when more than one action is done at the same time.

Verbs

RULE: 5.4 In an instruction, write the verb in the imperative ("command") form.

Descriptive statements in instructions

RULE: 5.5 If you start an instruction with a descriptive statement (dependent phrase or clause), you must separate that statement from the rest of the instruction with a comma.

Modem1 recovers the clock from the satellite. On the "Change, Rx, Buffer/Clocking" menu, the RX clock should be set to "SATELLITE" which will disable the Doppler buffer and output the RX clock on the "RT" clock pair. On the "Change, Tx, Clocking" menu, the TX clock should be set to "TX CLOCK IN" so as to accept the TT clock back in from the V200.

Step 1: Open the Clocking menu

Step 2: Set the parameter RX

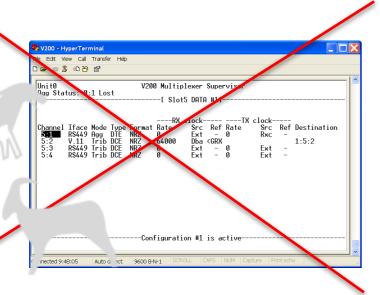
CLOCK to SATELLITE

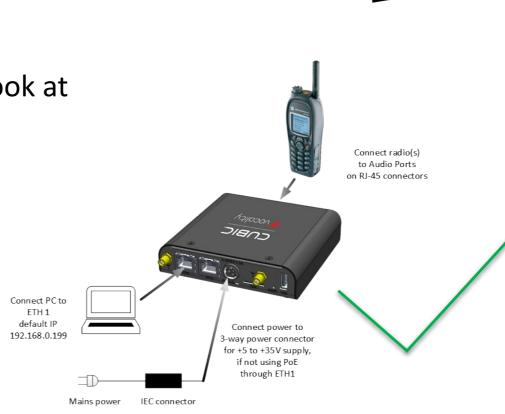


5 The Big picture

- Always include a visual
 - Reassurance
 - Alternative to words

Don't forget this may be all they look at





Use mains adaptor supplied

CUBIC

W vocality

6 Reward attention

Add to their knowledge for next time



Note: PACE+ operates between two OPUS Nodes. PACE+ must be enabled on both of those OPUS Nodes for it to optimize and accelerate traffic between them.

If you need to see aggregated statistics on all tunnels view the **Secure > Statistics submenu**.

There is another section on **Radio Relay modes** which will talk you through all of the options for connecting different radio types.



Order in a "how to" topic

SWITCH ON PACE+ OPTIMIZATION W

(If you are not sure what PACE+ is then start by reading our explanation about the **OPUS PACE Application**.)

Optimization requires an
OPUS Enhance License Key on all products.

Select the Enhance menu.

Select the Voice submenu.

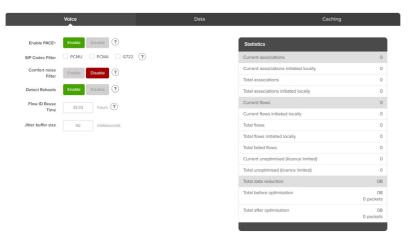


Figure 1-1 Enhance > PACE+ menu

Set Enable PACE+ to Enable.

Select Apply at the bottom of the page.

Note: PACE+ operates between two OPUS Nodes. PACE+ must be enabled on both of those OPUS Nodes for it to optimize and accelerate traffic between them.

Common user need as task title

2. Option to divert immediately to background topic, if terms in task header made no sense

Bant

CUBIC

W vocality

3. Pre-requisites, if you don't have this you cannot take next steps, divert

— 4. How to do it

5. A visual to reassure you are in the right area

3...

6. Troubleshooting, If it is still not working what else could be wrong?

Order in a "concept" topic

Common user need as task title



WHAT IS AN OPUS NODE?

An OPUS Node is one instance of OPUS software. This could be a Standard, Embedded or Custom installation of OPUS software on any of a wide range of different platforms. It can be licensed to use one or more OPUS Application Modules. It can be locally configured or controlled by an OPUS Solution Manager in its network.

A **Standard** OPUS Node is where OPUS software is installed on a COTS server based on a high performance CPU, such as an x86 server, with disk drives supporting many 10s of Gbytes, 1Gbyte RAM, running a standard Linux distribution. This delivers maximum performance and is suited to hub or high-throughput locations.

An **Embedded** OPUS Node is where OPUS software runs on a platform with specialized or limited CPU and memory resources (512Mbytes RAM) or on a virtual machine. In this situation the OPUS software includes a Linux distribution, to occupy as little space as possible. This is suited to low-throughput or remote locations.

A Custom OPUS Node is where OPUS software is integrated within a third party platform, which in turn manages the OPUS functionality. This is a special purpose version of OPUS software, which is the result of bespoke development activity.

2. Early option to divert to background topic, if terms make no sense

· 4. How it works

1...

۷...

3...





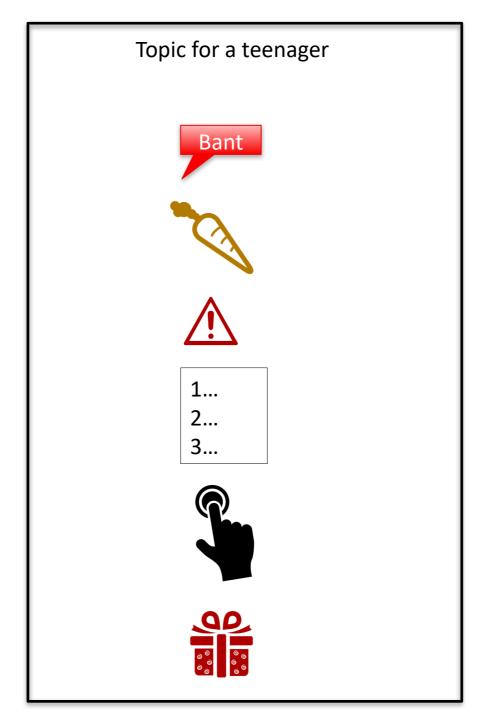


5. A visual to reassure you are in the right area



A good topic

- 1. Speak their language
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Your reward

Book recommendation

"Design for how people learn" by Julie Dirksen

Credits

Drawings from www.thenounproject.com

- Cave painting by Luke Anthony Firth
- Computer drawing by Becris
- Carrot by Ricardo Moreira
- Button press by Prerak Patel
- Present by Yasiminvisible

My Contact Details:

Alison Turner
Technical Author and IMS Manager
Cubic Mission Solutions
Alison.Turner@vocality.com

