INFORMATION SHEET

CONSOLE server
[ConPi]

Console server enables safe remote management of any device with a serial port, or USB port in case of using routers, switches, safety gateway systems, telephone exchanges and other networking devices.

This hardware solution provides safe alternative path, even if software outage of a networking device occurs. It is possible to utilize it in configuration, restart and actualization of operating system via remote management. Failures and downtime are minimalized through securing better availability of physical devices using remote console access.

Characteristics of model ConPi v1:

- Connection of 8x devices [CON1-8] via USB console ports
- Connection of 8x management L2 interface [SW1-8] via RJ45 ports
- External USB port for data store [DATA]
- External USB port for console access to SBC
- Two independent L3 network interfaces [LAN1/2]
- Latency monitoring of devices connected to management network system
- Monitoring processor temperature
- Monitoring temperature and humidity of a system
- Monitoring internal processes with autonomous repair
- Monitoring the hardware with SNMP protocol
- Automatic monitoring and cooling of SBC
- Automatic time synchronization
- Automatic backup of configuration files
- Configurable email notifications
- Central storage of networking operating systems
- Dynamic web page with reference links for integrated application systems
- Wireless hotspot for of diagnostics
- Console port for of diagnostics

Operating and indications of model ConPi v1:

- Network switch with signalization [PWR]
  - Power supply turn-on: toggling the switch into this position [1]
  - Power-off in supply: toggling the switch into this position [0]
- Smart microswitch [SBC]
  - SBC turn-on via pressing the switch briefly
  - SBC power-off via pressing the switch for 5 seconds
- State LED
  - Green light signal on the left indicates state of SBC device
  - Green light signal on the right indicates state of network switch

Hardware of model ConPi v1:

- Efficient SBC based on ARM platform is dedicated to running the console server
  - 1x CPU 4Core (Cortex-A53) 1.4GHz
  - 1x RAM 1GB DDR2
  - 1x LAN Gigabit Ethernet (10/100/300Mbps) port [L3]
  - 1x LAN Fast Ethernet (10/100Mbps) port [L3]
  - 1x LAN IEEE 802.11.b/g/n/ac (2.4GHz/5GHz)
  - 9x USB 2.0 ports
  - 1x USB Serial Console port
- Economical and efficient switch for connecting the management network system
  - 8x LAN Fast Ethernet (10/100Mbps) port [L2]
- Certified EPS switch-mode power supply source
  - AC/DC power supply 110/230V => 5V/3A (15W)
- 1-slot 19" rack chassis (1U) in a combination with material of aluminium
  - width 420mm
  - height 39mm
  - depth 243mm
- All of the components were tested within the frame of CE and FCC

Figure 1: Front panel

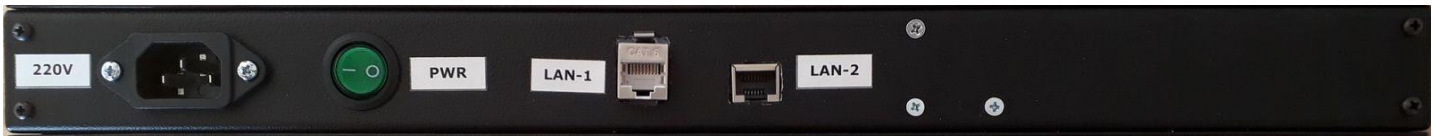


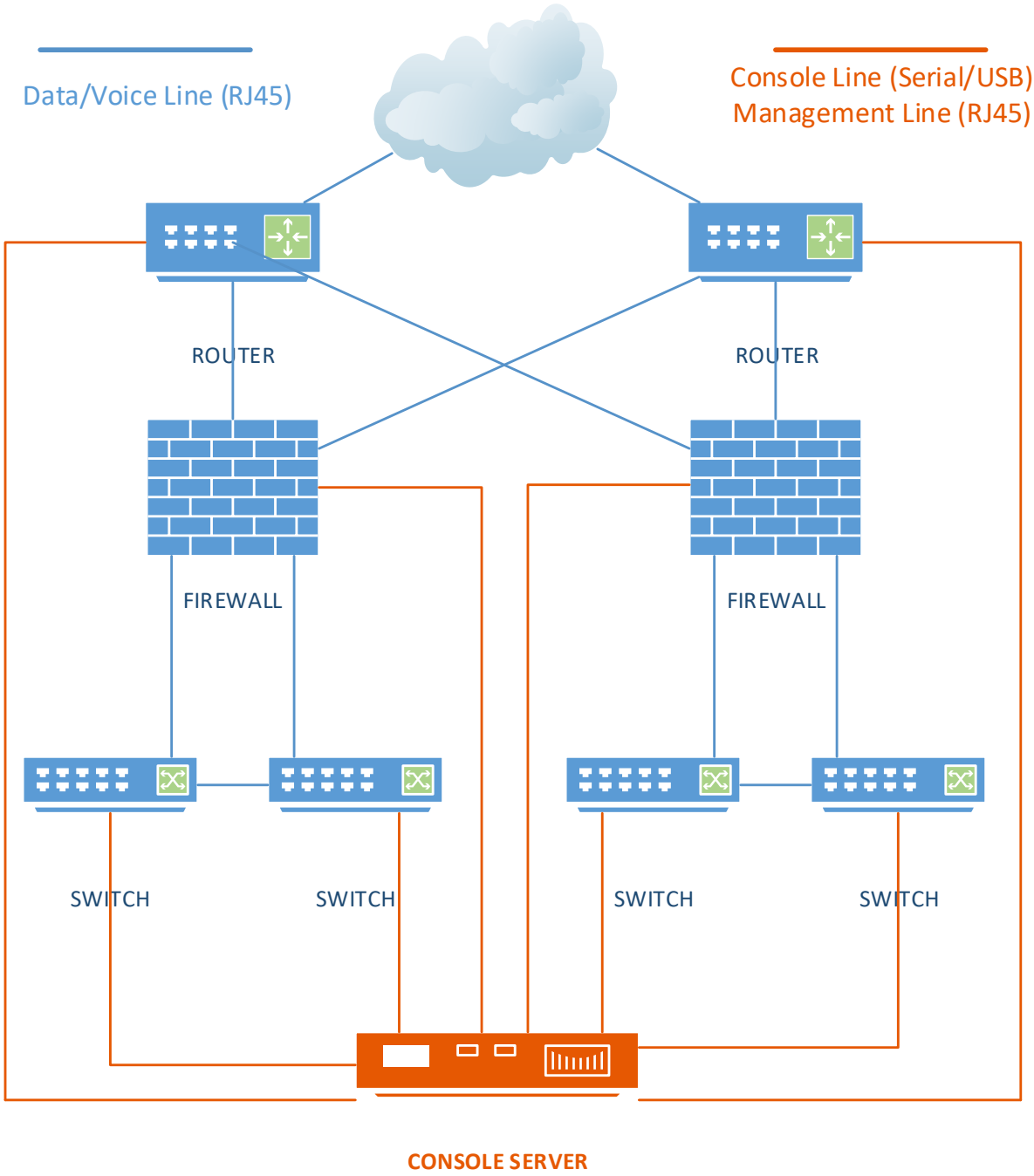
Figure 2: Rear panel

Figure 3: Package contents

Software of the model ConPi v1:

- Operating system open source Debian Buster
- Great amount of unlimitedly expandable open source tools without restrictions
- Option of using own scripting languages (shell, perl, python and others) without restrictions

Schema of usage:



ARM - Advanced RISC Machine
CE - European Conformance
EPS - External Power Supply
FCC - Federal Communications Commission
SBC - Single Board Computer