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COMMS MUNDI SCHOOL & TRAINING

Tech sheet

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1 INTRODUCTION

This document details the technical specifications of the Comms Mundi Centro Comercial product. The functionalities of each of the components that are part of the product are detailed below.

2 COMPONENTS

The product is made up of multiple components that offer a complete solution for implementations in shopping centers. Each component is detailed below.

2.1 data network

This component is responsible for managing the data network. It has the following features:

- Configuration of IPv4 network interfaces, support for 802.1D bridges and support for multiple 802.1Q vlans
- Advanced routing with support for source/destination routing policies, support for multiple gateways, in balanced mode or in failover mode
- Bandwidth control, reserving different browsing priorities for different types of traffic, for example allowing web traffic to have higher priority over torrent traffic.
- NAT/PAT
- DHCP server
- DNS server
  - ↘ Allows you to define zone response policies: secure search for google, bing, youtube and RPZ domains.

2.2 Captive Portal / Hotspot

This component allows the management of the captive portal (UAM) responsible for authenticating, authorizing and accounting for user access. It has the following features:

- Interception of all HTTP traffic
- Login page for user authentication.
- Possibility of automatic registration through validation by SMS
- Real-time monitoring of connected users
- Consumption management by time or volume of data per user
  - ↘ nas and internal radius server

2.3 Security

This component is responsible for the security of system resources. It has the following characteristics:

- VPN with support for ipsec, ipsec ikev1+xauth, l2tp/ipsec
- Firewalls with support for Stateful Packet Inspection (SPI), Layer 2-7 traffic filtering rules
- HTTP proxy with content filtering (lists of bad words, pornography, drugs, unauthorized websites,...)
- Intrusion detection and prevention system (IDS/IPS) that allows identifying and blocking unwanted traffic through the use of Emergency Thread rules.

2.4 monitoring

This component is responsible for monitoring the state of the system and resources on the network. It has the following characteristics:

- ⓾ Graphs of the status of the server sensors (CPU, memory, traffic, ...)
- ⓾ Programming of external sensors with monitoring icmp, snmp, http.
- ⓾ Graphic display of the programmed sensors.
- ⓾ Programming of sending alerts (email, call, sms) under alarm conditions of the values detected by internal and external sensors

2.5 Dashboard

This component is responsible for managing authorized users. It has the following features:

- ⓾ Registration, modification and cancellation of a user
  - ↘ configure the maximum time of use of internet access
  - ↘ set user browsing speed
- ⓾ Real-time dashboard of connected users
- ⓾ Connection query by a user

2.6 login page

This component is responsible for the user login page. It has the following characteristics:

- ⓾ Login page to connect to the internet, configurable styles and logo.

3 OPTIONAL COMPONENTS

The product allows you to activate optional components according to the need of the implementation. The optional components that can be activated are explained below.

3.1 Telephony

This component is responsible for managing calls. It has the following features:

- ⓾ PBX with support for VoIP protocols (SIP), by connecting analog telephony support cards, primary E1 or RSDI.
- ⓾ Supported audio codecs: G.711 (alaw/mulaw), G.726 AAL2, DVI4 (ADPCM), G.722, G.722.1 (Siren 7), G.722.1C (Siren 14), CELT, OPUS, SILK (skype codec), Speex, iLBC, GSM, BV16/32 (Broadvoice), Codec2, LPC10
- ⓾ Video call with support for supported video codecs: H.261, H.263, H.263-1998, H.263-2000, H.264, MP4, Theora, VP8 and VP9
- ⓾ Detailed call history
- ⓾ call recording
- ⓾ call center
- ⓾ Interactive Voice Menu (IVR)
- ⓾ voice mail
- ⓾ Fax send and receive
- ⓾ conference rooms
- ⓾ Sending SMS