

KNUC-100 Unified PABX

Overview

KNTECH Unified PABX KNUC-100 is a core voice gateway of your unified communications (UC) solution. Based on X86 platform, with KNTECH PABX software. Equipped with modular & hot swappable interface boards of FXS / FXO / E1 / T1 / LTE / GSM, users can flexibly connect with SIP trunks, PSTN, legacy PBX, analog phones, fax machines and IP phones according to their needs.

KNUC-100 is a high reliability gateway with redundant main control units (MCU), hot swappable interface boards and redundant power supplies, and with redundant PBX software and to leverage unified communications to enhance communication and improve efficiency, while high reliability and availability is also critical, UC100 is an ideal choice.

KNUC-100



Key Features

- Key Component of IP Telephony & Unified Communications
- Open Hardware Platform based-on X86
- with KNTECH IP PABX software
- Open API
- Perfect for Vertical markets
- Voice, Fax, Modem & POS
- Up to 10 interface boards, Hot swappable
- Up to 16 E1/T1 ports
- Up to 80 FXS/FXO ports
- Up to 40 GSM/LTE ports
- Redundant Power Supplies

Hardware Specification

MCU: 2* Main Control Unit, active/standby
HDX: 2* Ext. Hard Disk Unit, active/standby
SCU: 2* Switch Control Unit, active/standby
DTU: 4* E1/T1 ports, up to 8 boards
FXS: 8* FXS ports, up to 10 boards
FXO: 8* FXO ports, up to 10 boards
4S4O: 4*FXS+4*FXO, up to 10 boards
GSM/LTE: 4* GSM/LTE, up to 8 boards
PWR: 2* 110~220VAC power modular
FAN: 2* FAN cooling modular

MCU(Main Control Unit)

X86 structure control unit with two hardware configuration options:

1) Standard:

CPU: Intel J1900 2.0GHz, 4 cores
Intel E3845 1.9GHz, 4 cores

RAM: DDR3L 1600MHz 8GB

2) Advanced:

CPU: Intel i5-6300U 2.4GHz, dual cores

RAM: DDR4 2133MHz 32GB

Network: 10/100/1000Mbps Gigabit LAN

1* HDMI video connector

1* USB 2.0

1* USB 3.0

128GB SSD hard disk, extendable by HDX

HDU(Ext. Hard Disk Unit)

Extend hard disk storage of MCU board

1* SSD/HDD hard disk space

1* VGA video connector

4* USB 2.0

Mic and Speaker

SCU(Switch Control Unit)

CPU: 1.8GHz, 8 cores

RAM: DDR3 512MB

Flash: 32MB

EMMC: 8GB

Network: 2* 10/100/1000Mbps

Console: 1* 115200bps, RJ45

USB 2.0: 1

Media Processing

Codecs: G.711A/U, G.723.1, G.729AB,
iLBC, AMR
Silence Suppression
Comfort Noise Generator(CNG)
Voice Activity Detection(VAD)
Echo Cancellation
Dynamic Jitter Buffer
Programable Gain Value
T.38 and Pass-through FAX

Modem and POS terminal

DTMF: RFC2833/SIP Info/Inband

VLAN 802.1p/q

Layer3 QoS and DiffServ

FXS

Connector: RJ11

Caller ID: Bellcore Type 1&2,

ETSI,BT,NTT and DTMF

Answer and Disconnect Signaling:

Answer, Disconnect, Busy Tone

Polarity Reversal

Hook Flash

FXO

Connector: RJ11

Caller ID: FSK, DTMF

Polarity Reversal

Answer Delay

Busy Tone Detection

No Current Detection

FXS/FXO Features

Port Group/Hunting Group

Digitmap

Flexible Call Routing Rules

Caller/Called Number Manipulation

Rules

VoIP Protocol

SIP v2.0 (UDP/TCP),RFC3261
SDP,RTP(RFC2833), RFC3262,
3263,3264,3265,3515,2976,3311
RTP/RTCP, RFC2198, 1889
SIP-T,RFC3372, RFC3204, RFC3398
RFC4028 Session Timer
SIP TLS
RFC2806 TEL URI
RFC3581 NAT, rport
NAT Traversal: dynamic NAT, STUN

DTU

Connector: RJ48C

4* Port E1/T1 per board

Support ISDN PRI and SS7 signaling

ISDN PRI:

23B+D(T1), 30B+D(E1), ITU-T Q.921,

ITU-T Q.931, Q.Sig

SS7:

ITU-T, ANSI, ITU-CHINA,

MTP1/MTP2/MTP33, TUP/ISUP

E1 Frame : DF, CRC4, CRC_ITU

T1 Frame: 4-Frame Multi-

frame (F4,FT),2-Frame Multi-

frame (F12, D3/4),Extended Super-

frame (F24, ESF) ,Remote Switch Mode

(F72, SLC96)

Local/Remote Clock Source

Network

Static IP

IPv4, IPv6, TCP/UDP,TFTP, FTP,

ARP, RARP,ICMP,NTP, SNTP,

DNS,Tracert

HTTP,HTTPS

VLAN(TBD)

GSM/LTE

4* GSM/LTE channels per board

Antenna Connector: SMA

SMS/USSD/PIN

Provides GSM and LTE boards depends on network frequency of users:

GSM: 850/900/1800/1900MHz

LTE frequency band options:

Type A:

FDD: B2/B4/B12 WCDMA: B2/B4/B5

Type E:

FDD: B1/B3/B5/B7/B8/B20

TDD: B38/B40/B41

WCDMA: B1/B5/B8

GSM: 900/1800MHz

Type V:

FDD: B4/B13

Type J:

FDD: B1/B3/B8/B18/B19/B26

TDD: B41 WCDMA: B1/B6/B8/B19

Type AU:

FDD: B1/B2/B3/B4/B5/B7/B8/B28

TDD: B40 WCDMA: B1/B2/B5/B8

GSM: 850/900/1800/1900

Capabilities

Extensions : 5000

Concurrent Calls: 100~300

Register Per Second: 200/s

Call Per Second: 100/s

DTU Features

Local/Remote Ringback tone

Overlap Dialing

Dial plan up to 2000

E1 Group/ Timeslot Group

SIP Trunk/SIP Trunk Group

Codecs Group

Caller/Called Blacklist

Caller/Called Whitelist

Access Rule List

Maintenance

Web GUI configuration and maintenance

Configuration backup and restore

PSTN call and release cause statistics

SIP call and release cause statistics

HTTP firmware upgrade

Network capture

Syslog: Debug, Info, Error, Warning,

Notice

Call history record

NTP

Call Feature

Flexible Route Methods

PSTN-PSTN, PSTN-IP, IP-PSTN

Intelligent Routing Rules

Call Routing base on Time

Call Routing base on Caller/Called Prefixes

256 Route Rules for each Direction

Caller and Called Number Manipulation

Environmental

1+1 Power Supply, hot plug

Input: 100-240VAC, 50-60 Hz

Power Consumption: 200W

Operating Temperature: 0 °C ~ 45 °C

Storage Temperature: -20 °C ~ 80 °C

Humidity: 10%-90% Non-Condensing

Dimensions(W/D/H): 437*345*132mm

Unit Weight: 16kg

Compliance: CE, FCC



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Software GUI

