UC1500 Unified VoIP Gateway

Overview

Dinstar Unified VoIP Gateway UC1500 is a core voice gateway of your unified communications (UC) solution. Based on X86 platform, it allows users to install third-party PBX software with simple installation. Equipped with modular & hot swappable interface boards of FXS/FXO/E1/T1 and an open API, users can flexibly connect with SIP trunks, PSTN, legacy PBX, analog phones, fax machines and IP phones according to their needs.

UC1500

UC1500 is a high reliability gateway with redundant power supplies and hot swappable interface boards. For vertical users who are seeking to make use of their own secure PBX software and to leverage unified communications technology to enhance communication and improve efficiency, while high reliability and availability is also critical, UC1500 is an ideal choice.

Key Features

- Key Component of IP Telephony & Unified Communications
- Open Hardware Platform based-on X86
- Easy to install 3rd party IP PBX such as Asterisk, Freeswitch, 3CX, Issabel, VitalPBX software
- Open API
- Perfect for Vertical markets

- Voice, Fax, Modem & POS
- Up to 4 interface boards, Hot swappable
- Up to 16 E1/T1 ports
- Up to 32 FXS/FXO ports
- Redundant Power Supplies

DINSTAR

The Gateway to VoIP World

Hardware Specification

MCU: 1* Main Control Unit, Hot plug

HDX: 1* Ext. Hard Disk Unit, Hot plug

SCU: 2* Switch Control Unit, active/standby

DTU: 4* E1/T1 ports, up to 4 boards

FXS: 8* FXS ports, up to 4 boards

FXO: 8* FXO ports, up to 4 boards

4S4O: 4*FXS+4*FXO, up to 4 boards

PWR: 1* 110~220VAC power modular

FAN: 1* 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

Lay3 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)

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

Capabilities:

Extensions: 3000

Concurrent Calls: 100~300

Register Per Second: 100/s

Call Per Second: 100/s

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, hotplug

Input: 100-240VAC, 50-60 Hz

Power Consumption:100W

Operating Temperature:0 ℃ ~ 45 ℃

Storage Temperature: -20 ℃ ~80 ℃

Humidity:10%-90% Non-Condensing

Dimensions(W/D/H): 437*345*66mm

Unit Weight: 7.5kg

Compliance: CE, FCC