Unified Communication Platform

Overview

OpenVox Unified Communication Platform (UCP) is the ideal solution to integrate data, voice and video in one product for small and medium-sized enterprises, which can be used in scenarios such as government and enterprise call systems, commercial call centers, and dispatch center industries.

UCP series products are divided into three models: **UCP1600**, **UCP2120** and **UCP4131**. UCP1600 supports 1 main control board slot and 4 service board slots to meet the service needs of less than **100 users**; UCP2120 supports 2 main control board slots and 9 service board slots to meet the service needs of **100~1000 users;** UCP4131 supports 2 main control board slots, 9 service board slots and 2 power supply slots to meet the service needs of **1000~10000 users**.

The concept of UCP is that users can choose different functional and performance module boards and control boards according to their needs, and these modules are connected to the backplane via high-speed Ethernet through special communication connectors. UCP products adopt SIP softswitch core, high integration, broadband and narrowband integrated design, which can effectively improve communication efficiency and reduce operating costs. The products are connected to PSTN (Public Switched Telephone Network) or private network voice switching equipment via digital or analog trunks, and broadband SIP trunks.

Features

Reliability

- Passive Backplane
- Hot swapping (modular boards)
- Avoid single point of failure
- Star topology bus
- Smart Modules
- Compact PCI high-speed connector

Availability

- Wide software selection: Asterisk, Elastix, FreePBX, 3CX, etc.
- Modules are easy to be installed, configured and disassembled
- High reliability solutions (RAID/dual master hot standby/ redundant power supplies)

Flexibility

The UCP1600/ 2120/4131 chassis provides up to 6/12/14 expansion slots, supporting any combination of the following modular boards, providing a comprehensive range of mainstream communication interfaces.

- GSM/LTE Modules
- Analog Modules
- Digital Modules
- RAID Modules / Storage Expand Modules

Family Products

Chassis	
UCP1600	1U chassis, 19" rack mountable 6-slot chassis
UCP2120	2U chassis, 19" rack mountable 12-slot chassis
UCP4131	4U chassis, 19" rack mountable 14-slot chassis
Core Switch Unit	
CSU-F	100M Switchboard
CSU-G	1000M Switchboard
Power Sipply Unit	
PSU	ACPW-4131 AC Power Module; 400W; 90-240 Vac;
Core Control Unit	
CCU-N-BAYL	Intel Bay Trail quad-core processor;
CCU-N-GML	Intel Celeron Gemini Laky quad-core processor;
CCU-I-KABYLR	Intel Kaby Lake R quad-core processor（CCU-I not supported in UCP1600）
CCU-I-TGL	Intel Quad Core processors（CCU-I not supported in UCP1600）
Module Unit	
WTU	Support 4 GSM/LTE channels access;
AIU-8	Support for 8 FXO, 8 FXS, 4 FXO and 4 FXS channels;
AIU-16	Support for 16 FXS channels;
MIU	Support for 4/8 magnet ports;
DTU	Support for 1/2/4 optional T1/E1/PRI interfaces;
RSU	Support RAID 0 and RAID 1(only UCP4131 support)
SEU	Support 2.5-inch mechanical hard disk or solid state drive(hard disk needs to be used with the main control board; 1U supports 1 piece, 2U can support 2 pieces, 4U can support 4 pieces)

UCP1600

UCP1600 adopts 1U standard chassis, 434mm wide, 330mm deep and 44mm high, which can be installed in a 19-inch cabinet conforming to IEC (International Electrotechnical Commission) standard.

The UCP1600 provides **1 main control board** slot and **4 service board slots** to meet the service needs of **users below 100**.

UCP2120

UCP2120 adopts 2U standard chassis, 434mm wide, 330mm deep and 88mm high, which can be installed in 19-inch cabinets conforming to IEC (International Electrotechnical Commission) standards.

UCP2120 provides **2 main control board slots** and **9 service board slots** to meet the service requirements of **100~1000 users**.

Chassis Slot Description

Each slot in the UCP1600/2120 chassis has a unique slot number starting with 1 and a configuration of 1 switch board (CSU-F/G), with different orientations for different chassis models. Each installed module will occupy at least 1 slot (CCU-I occupies two slots), some modules must be installed in special use slots, but most slots are equivalent.

- UCP1600 Slot Location

Slot 2	Slot 3	Slot 5
Slot 1	CSU-F/G	Slot 4

- UCP2120 Slot Location

Slot 4	Slot 7	Slot 11
Slot 3	Slot 6	Slot 10
Slot 2	Slot 5	Slot 9
Slot 1	CSU-F/G	Slot 8

- UCP1600 Available Modules

Slot #	Function	Available Modules
CSU-F/G	Must install network switch board	CSU-F/G
1	Main Control Board Slot	CCU-N
2	Module Board Slot	WTU / AIU / DTU / SEU（UCP1600）
3	Module Board Slot	WTU / AIU / DTU
4	Module Board Slot	WTU / AIU / DTU
5	Module Board Slot	WTU / AIU / DTU

- UCP1600 Available Modules

Slot #	Function	Available Modules
CSU-F/G	Must install network	CSU-F/G
1	Main Control Board Slot	CCU-N/I
2	Module Board Slot	WTU / AIU / DTU
3	Module Board Slot	WTU / AIU / DTU / SEU（UCP2120）
4	Module Board Slot	WTU / AIU / DTU / SEU（UCP2120）
5	Module Board Slot	WTU / AIU / DTU
6	Module Board Slot	WTU / AIU / DTU
7	Module Board Slot	WTU / AIU / DTU
8	Main Control Board/ Module Board Slot	CCU-N / WTU / AIU / DTU
9	Module Board Slot	WTU / AIU / DTU
10	Module Board Slot	WTU / AIU / DTU / SEU（UCP2120）
11	Module Board Slot	WTU / AIU / DTU / SEU（UCP2120）

Note：

* UCP chassis should be equipped with at least one main control board. Among them, UCP1600 does not support dual master, UCP2120 can support dual master (only CCU-N series can support dual master, CCU-I does not support)
* For the UCP1600, the SEU plugs into slot 2; For the UCP2120, the CCU-N-GML hard drive board plugs into slot 3 or 10, and the CCU-N-BAYL and CCU-I-KABYLR hard drive boards plugs into slots 3-4, 10-11.
* UCP1600/2120 does not support RAID.

UCP4131

UCP4131 adopts 4U standard chassis, 435.8mm wide, 330mm deep and 176.8mm high, which can be installed in 19-inch cabinet conforming to IEC (International Electrotechnical Commission) standard.

UCP4131 provides 2 slots for main control board, 9 slots for module board and 2 power supply modules to meet the service requirements of 1000~10000 users.

UCP4131 Chassis Slot Description

Each slot in the UCP4131 chassis has a unique slot number starting at 1 and a switch board (CSU-F/G), with different orientations for different chassis models. Each installed module will occupy at least 1 slot (CCU-I occupies two slots), some modules must be installed in special use slots, but most slots are equivalent.

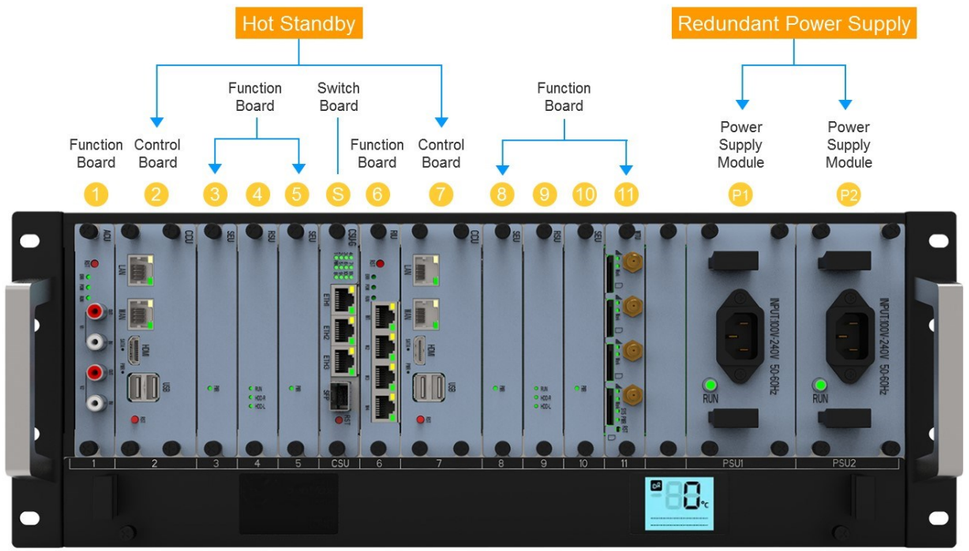
- UCP4131 Slot Location

Slot 1	Slot2	Slot 3	Slot 4	Slot 5	CSU-F/G	Slot 6	Slot7	Slot 8	Slot 9	Slot 10	Slot 11		PSU 1	PSU 2

Note:

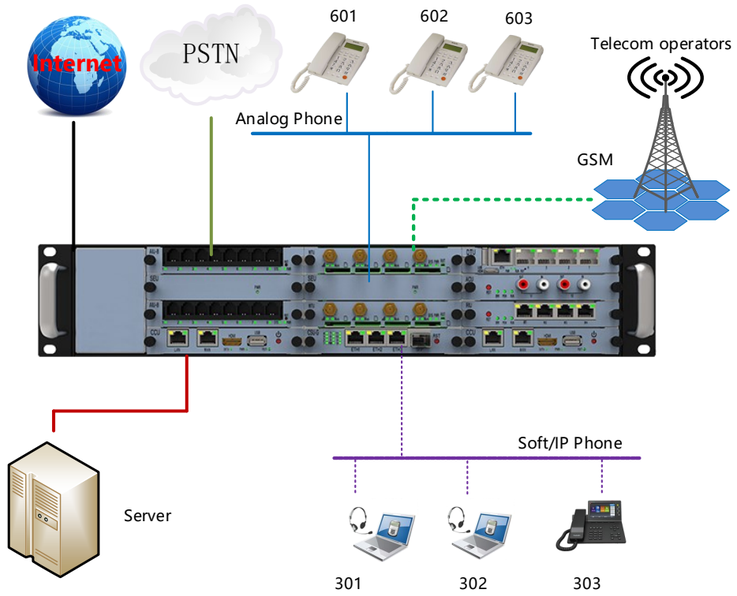
* The UCP chassis needs to be equipped with at least one main control board. Among them, UCP4131 can support dual master CCU-I and dual power supplies.
* For the case of **without RAID** module: CCU-I main control board which wants to expand the hard disk board, it can support up to 2 hard disk boards. If the main control board is in slot 2, you can plug the hard disk board to 1 or 4; if the main control board is in slot 7, you can plug the hard disk board to slot 6 or 9.
* For **accessing the RAID** module (RSU): If the CCU-I main control board is inserted into slot 2, the RAID card (RSU) should be inserted into slot 4, and the RAID hard disk should be inserted into slots 3 and 5; if the CCU-I main control board is inserted into slot 7, the RAID card (RSU) should be inserted into slot 9, and the RAID hard disk should be inserted into slots 8 and 10.

- UCP4131 Slot Schematic

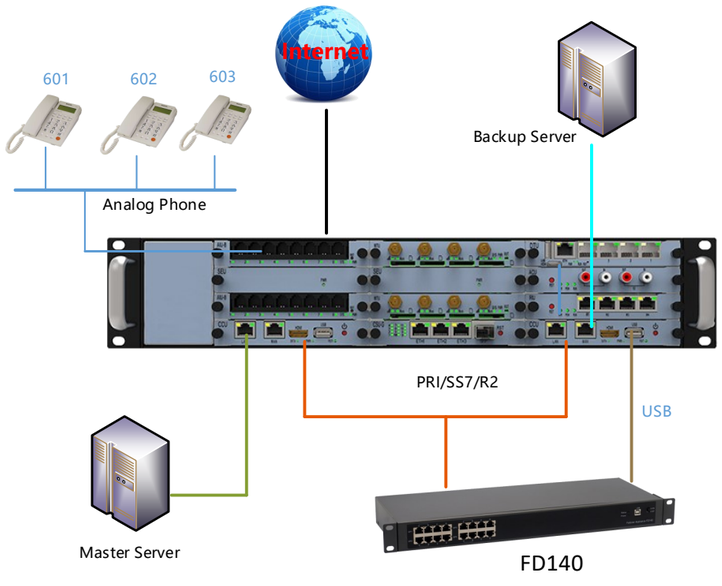


Slot #	Function	Available Modules
CSU-F/G	Must install network	CSU-F/G
1	Module Board Slot	WTU / AIU / DTU / SEU (Without RAID)
2	Main Control Board Slot	CCU-I
3	Module Board Slot	WTU / AIU / DTU / SEU (With RAID)
4	Module Board Slot	WTU / AIU / DTU / RSU / SEU (Without RAID)
5	Module Board Slot	WTU / AIU / DTU / SEU (With RAID)
6	Module Board Slot	WTU / AIU / DTU / SEU (Without RAID)
7	Main Control Board Slot	CCU-I
8	Module Board Slot	WTU / AIU / DTU / SEU (With RAID)
9	Module Board Slot	WTU / AIU / DTU / RSU / SEU (Without RAID)
10	Module Board Slot	WTU / AIU / DTU / SEU (With RAID)
11	Module Board Slot	WTU / AIU / DTU
12	Power Supply Slot	PWU
13	Power Supply Slot	PWU

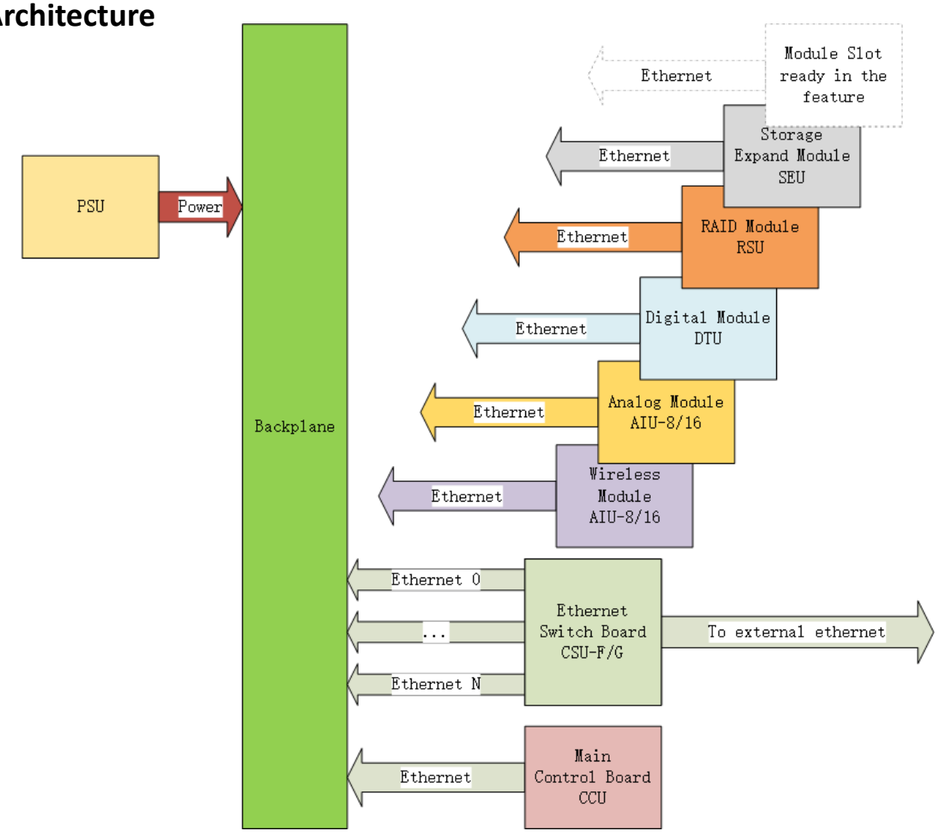
Application Topology 1



Application Topology 2



Architecture



Modules

WTU	AIU-8	AIU-16	DTU
SEU	RSU	PSU	MIU

UCP Chassis Parameters

UCP Series Chassis Product Parameters			
Model	UCP1600	UCP2120	UCP4131
Slot	1 main control slot, 4 module slots	2 main control slots, 9 module slots	2 main control slots, 9 module slots, 2 power supply slots
Weight	3.9kg (CSU-F+5*empty panels)	5.6kg (CSU-F+11*empty panels)	9.6kg (CSU-F+5*empty panels+2*PSU)
Dimension	44mm*434mm*330mm	88mm*434mm*330mm	176.3mm*435.8mm*330mm
Maximum Power	64W	170W	340W
Maximum Output Power (AC power)	75W	200W	400W
Input Current (AC power)	1A	2A	4A
Input Voltage (AC power)	100V~240V AC		
Power Frequency (AC power)	50Hz / 60Hz		
Feeder Voltage	-48V		
User Line Distance	3.0km		
Long-term Working Temperature	0°C ~ 45°C		
Short-term Working Temperature	-5°C ~ 55°C		
Ambient Humidity	5% ~ 95% non-condensing		
Storage Temperature	-40°C ~ 70°C		
Particle Concentration in Air	Less than 180 mg/m3		
Certification	CE		