DINSTAR

Dinstar UC350 Pro Advance Training

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Foreword

UC350Pro is a new generation IP PBX for large capacity unified communication solutions. Based on the powerful hardware platform, it up to 5,000 extensions and 500 concurrent calls which are integrated voice, video, paging, fax, conference, recording, and other useful functions. It is suitable for helping to build the telephony system of large and medium-sized enterprises and can meet the branch office needs of large group enterprises and government agencies, helping enterprises and industry customers to establish a convenient and efficient IP telephone system.

This document show some advance features of UC350 for high level scenario.

Contents

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How to using Auto Provision

01

Auto Provision Logic

Assigning an extension to phone (MAC)

How to using PIN

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Auto Provision Logic

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Dinstar IP Phone

UC350 Pro

Subscribe
Send a multicast message within LAN , the message will across the LAN when IP phone boots up

200 OK
UC350 will send back a confirmation with 200 OK to IP Phone

NOTIFY
Reply with SIP message NOTIFY and indicate the provisioning URL

200 OK

Sends HTTP download Request

Config file
Download configuration file from UC350 Pro
Apply the setting in the configuration file(xxx.cfg)

Auto Provision Logic

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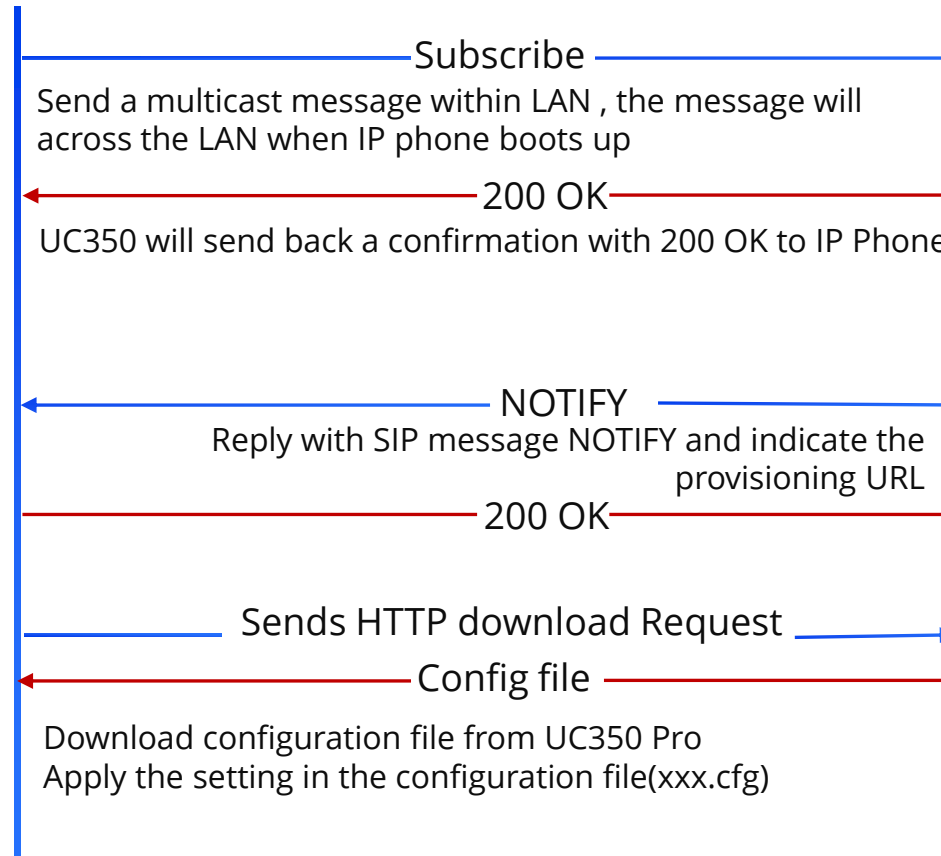
1. When the IP Phone booting up, it will send PNP subscribe that's broadcast.
2. UC350 Pro receives PNP subscribe message from IP Phone, it will check the configuration file list base MAC of IP Phone before send Notify message to IP Phone.
   If have, the MessageBody of Notify will carrier URL https:// ${HTTPS_IP}:1443/pnp/{$MAC}.cfg.
   If not, the MessageBody of Notify will carrier URL https:// ${HTTPS_IP}:1443/pnp/general.cfg.
3. The Dinstar IP phone will analysis it after received the Notify and download the file.
4. If the file name is {$MAC}.cfg, IP Phone will apply it directly, the auto provision is done.
5. If the file name is general.cfg, IP Phone will analysis and check it have node Config.CustomCfg.Url or not. If have, mean the PIN feature enabled.
   The IP Phone will pop-up window to prompt "Please Enter PIN"; When user inputs the "PIN" code, the phone will take the input as the filename and try download the file. Because the node Config.CustomCfg.Url carrier value https:// ${HTTPS_IP}:1443/pnp//$pin.cfg
   IP Phone will download the configuration file "$PIN.cfg" and apply it.

Assigning an extension to phone (MAC)

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2.1 Assigning a phone & MAC to an extension

We can edit the extension to assign a phone to an extension. The extension will be bound to the phone, and when the MAC of the phone is recognized, the UC will send the configuration to the phone, realizing the automatic configuration of the phone.

Assigning an extension to phone (MAC)

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2.2 Check Config File

In the table of Config File, we can see the assigned MAC file. The IP Phone will download the file and apply it when do auto provision.

		Phones			
Status		Phones	**Config File**	Template File	Phone Firmware Management	PIN Code
Trunk & Route >					
Extension & Call Group ∨		MAC/PIN	Create Time	Last Access Time	Last Access IP
SIP Extension		F8A03D69047A	2025-03-03 17:59:53	2025-02-25 17:32:11	172.19.152.22
FXS		7001	2025-02-26 17:30:18		
Phones		F8A00D67577A	2025-03-03 17:59:51		
		7002	2025-02-26 17:30:18		
Ring Group		F8A03D67577A	2025-03-03 17:59:51		
Intercom/Paging Group		7000	2025-02-26 17:30:18		
Advanced Service >		general	2025-03-03 17:59:51	2024-12-04 16:20:47	172.23.0.107
		7003	2025-02-26 17:30:18		
PBX Global Settings >		7004	2025-02-26 17:30:18	2024-10-10 16:56:21	172.19.152.23
Address Book >		6001	2025-03-03 16:07:19		

Assigning an extension to phone (MAC)

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2.3 View the binding of the phone to the extension.

In the table of phone, we can see the online phones who send subscribe to UC. If show Extension that means had been assignments.

Assigning an extension to phone (MAC)

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2.4 Phone Assigning Extensions

In the table of phone, based on the recognized MAC&IP, we can directly assign extensions or add new extensions.

How to using PIN

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3.1 Extension set PIN code

How to using PIN

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3.2 Check Config file of PIN

Status

Trunk & Route >

Extension & Call Group ∨

　SIP Extension

　FXS

　Phones

　Ring Group

　Intercom/Paging Group

Advanced Service >

PBX Global Settings >

Address Book >

Phones

| Phones | **Config File** | Template File | Phone Firmware Management | PIN Code |

① check config File

MAC/PIN	Create Time	Last Access Time	Last Access IP	
F8A03D69047A	2025-03-03 16:07:17	2025-02-25 17:32:11	172.19.152.22	
7001	2025-02-26 17:30:18			
F8A00D67577A	2025-03-03 16:07:17			
7002	2025-02-26 17:30:18			
F8A03D67577A	2025-03-03 16:07:17			
7000	2025-02-26 17:30:18			
general	2025-03-03 16:07:17	2024-12-04 16:20:47	172.23.0.107	
7003	2025-02-26 17:30:18			
7004	2025-02-26 17:30:18	2024-10-10 16:56:21	172.19.152.23	
6001	2025-03-03 16:07:19			

How to using PIN

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3.3 Enable PIN code Status

How to using PIN

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3.4 Enter the PIN in the phone to download the configuration

When the phone prompts "Please Enter PIN", enter the file name(For example 2205), the file will be downloaded from the UC, and the configuration will take effect in the phone.
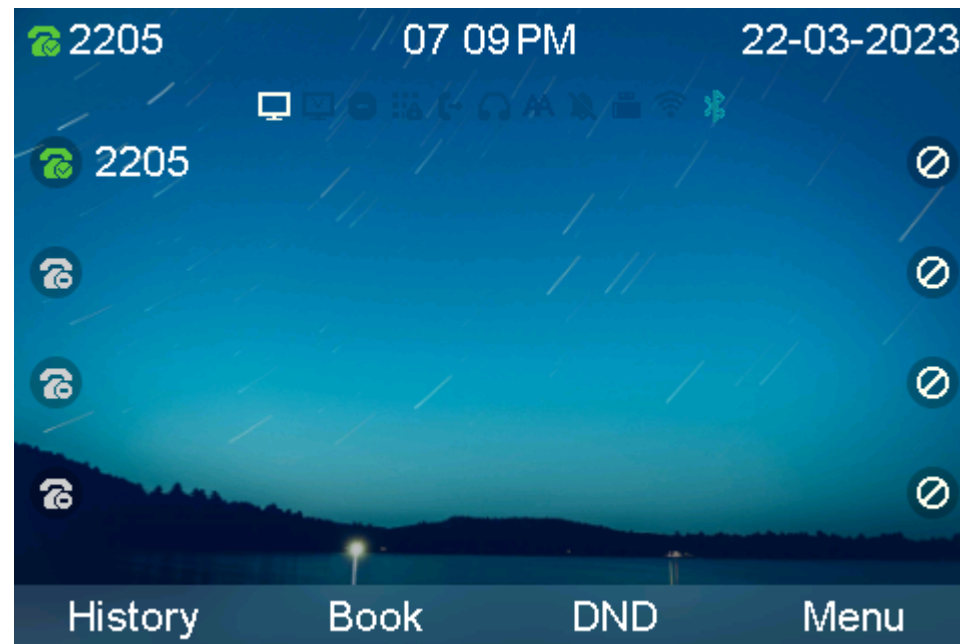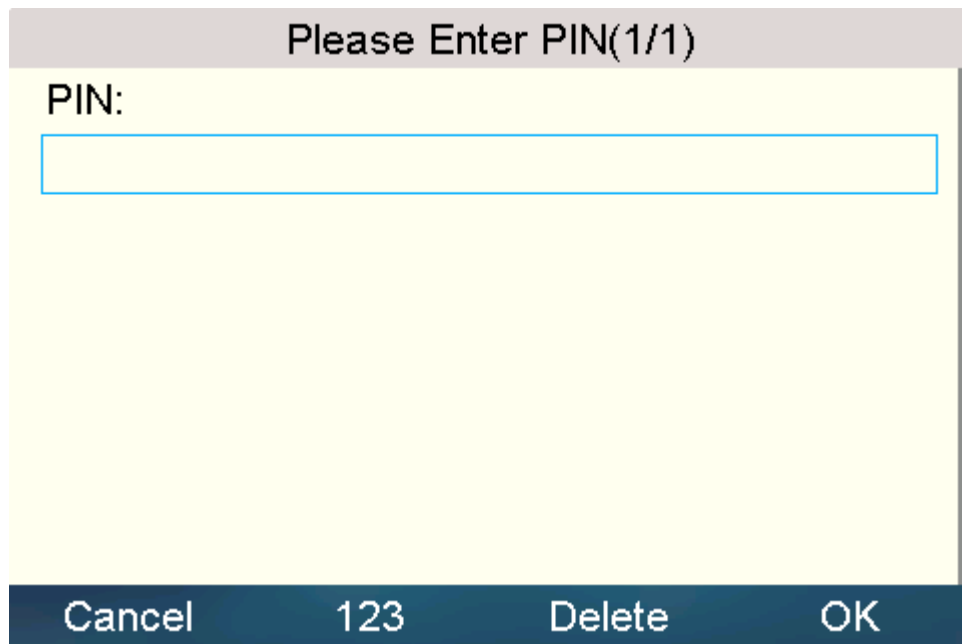
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If you need to support other phone models, you can add a template file and refer to the file format to add support for other phone models.

Status

Trunk & Route

Extension & Call Group

   SIP Extension

   FXS

   Phones

   Ring Group

   Intercom/Paging Group

Advanced Service

PBX Global Settings

Address Book

CDR & Recording

Phones

Phones   Config File   **Template File**   Phone Firmware Management   PIN Code

Template File   dinstar.xml   ▼ | Refersh All | Add | Copy | Delete | Upload | Rename |

| IP63G.xml |
| ip64G.xml |
| ipphone.xml |
| **dinstar.xml** |
| general.template |

```
1   <?xml version="1.0" e
2   <doc>
3       <models>
4           <!--该模板文
5           <model ua=
6           <model ua=
7           <model ua="Dinstar C64G">Dinstar C64G</model>
8           <model ua="Dinstar C66G">Dinstar C66G</model>
9       </models>
10      <header>
11          <Languages type="select" selected="0" en="Language" zh_cn="语言">
12              <option key="0" value="English"/>
13              <option key="2" value="简体中文"/>
14              <option key="5" value="Português"/>
15              <option key="6" value="Español"/>
16              <option key="7" value="Italiano"/>
17              <option key="8" value="Nederlands"/>
18              <option key="9" value="Francaise"/>
```

Save

How to using HA

High Availability Logic

Heartbeat configuration

Floating IP configuration
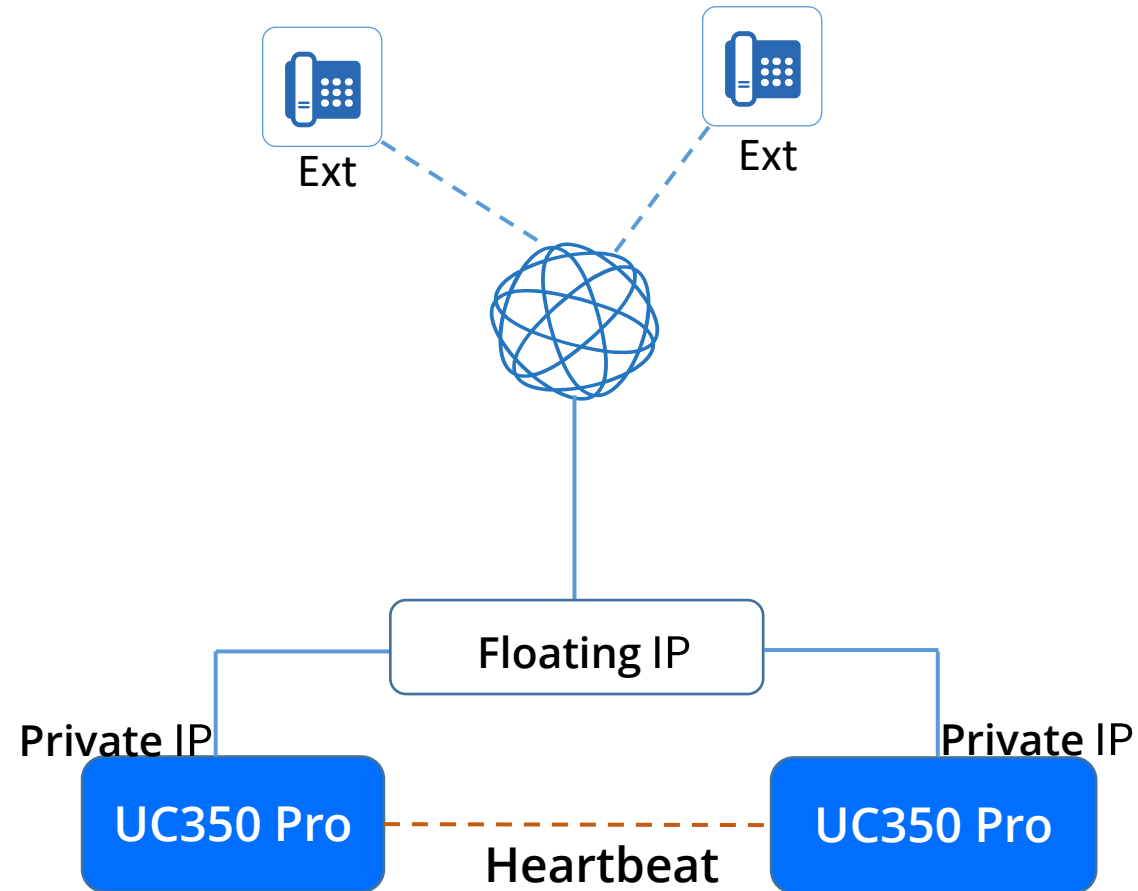
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High Availability Logic

Heartbeat Configuration

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| Hot Standby Profile | Floating IP Management | Network Port Detection | Switching Rules |

*Status ⬤

IPv4/IPv6   IPv4 ⌄

*Local Management Port IP   172.30.110.171(ens18) ⌄

Local Port   4333

*Remote Management port IP   172.30.54.4   ⊕

Remote Port   5333

*Remote Device SN   CB78-C39F-5212-26D3

Max Heartbeats for Detecting Hot Standby   51

Interval of Sending Heartbeat for Detecting Hot Standby(ms)   200

Max Heartbeats for Detecting Service   50

Interval of Sending Heartbeat for Detecting Service(ms)   200

- ❖ **Local Management Port**
- ❖ **Remote Management IP**
- ❖ **Remote SN**

Floating IP Configuration

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Hot Standby Profile	Floating IP Management	Network Port Detection	Switching Rules

Floating IP only supports IPv4 and only takes effect after enabling Hot Standby configuration!

Index	Interface	Interface Index	IP Address	Netmask
1	ens18	1	10.10.10.10	255.255.255.0

Note: The Floating IP need the network support

How to using VLAN

03

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VLAN Scenario

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Add VLAN Configuration

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Network

| Setting | **VLAN Sub Interface** | Static Route | Hosts | DDNS | Service & Port | Firewall |

Name	MTU	IPv4 Address	Netmask	IPv4 Gateway	IPv4 DNS
GE0.100	1500	52.115.191.57	255.255.255.252	52.115.191.58	8.8.8.8/4.4.4.4
GE0.102	1500	10.10.10.10	255.255.255.0	10.10.10.1	8.8.8.8/4.4.4.4

Note:

Need reboot whole UC350 Pro to active VLAN.

How to bonding VLAN

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SIP Stack

Status   **Setting**

Index	Name	IPv4/IPv6	Interface	Listening Port	DTMF	Session Timeout	Codec Priority	Incodec Profile	Outcodec Profile
1	GE3_default	IPv4	GE3	5060	RFC2833	Off	Remote	1-< default >	1-< default >
2	forfxo	IPv4	GE0	5060	RFC2833	Off	Remote	1-< default >	1-< default >
3	1	IPv4	GE0	5066	RFC2833	Off	Remote	1-< default >	1-< default >
4	GE0_ChinaTelec...	IPv4	GE0.100	5060	RFC2833	Off	Remote	1-< default >	1-< default >
5	GE0_ChinaUnic...	IPv4	GE0.102	5060	RFC2833	Off	Remote	1-< default >	1-< default >

Open the Page "PBX Global Settings" >>"SIP Stack"

Add the specific SIP Profile for each VLAN.

How to bonding VLAN

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SIP Trunk

Status   **Setting**

Index	Name	Realm	Transport	Heartbeat	Register	SIP Profile	Status
1	fxo	172.27.10.9:5060	UDP	Off	Off	2-< forfxo >	Enabled
2	Trunk_ChinaTele...	52.115.191.1:5060	UDP	Off	Off	4-< GE0_ChinaTelecom >	Enabled
3	Trunk_ChinUnic...	10.10.10.8:5060	UDP	Off	Off	5-< GE0_ChinaUnicom >	Enabled

Open the Page "Trunk&Route" >>"SIP Trunk".

Add the Trunk, SIP Profile choose the added Profile.

How to using Event Report

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Event Report Describe

UC350 Pro allows the following events to be reported :

* Call Status

* CDR

* SIP Extension Register/Unregister

* SIP Trunk Available/Unavailable

* Voice Recording

URL Format

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UC350 Pro using URL send the report to external server.

Format:

http://ip:port/event?key1=$value1&key2=$value2

$Value refers to the parameter that needs to be reported.

Key can be defined by users, but it's generally the same with value.

URL Format

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CDRs Info

URL Report

Json Format

Parameter List

$caller : Caller Number

$source : Caller Channel Description

$called : Destination Number

$destination : Destination Channel Description

$start_time : Call Start Time, YYYY-MM-DD HH:MM:SS Format

$end_time : Call End Time, YYYY-MM-DD HH:MM:SS Format

$start_epoch_time : Call Start Time, Unix epoch timestamp Format

$end_epoch_time : Call End Time, Unix epoch timestamp Format

$duration : Call Duration

$hangup_by : Hangup Direction, Caller/Called

$record_file : Record file name

$hangup_cause : Hangup Cause

$sn : Device SN

$mac : MAC Address

$ip : Network Address

$time : Local Date/Time, YYYY-MM-DD HH:MM:SS

$epochtime : Unix epoch time

When move the cursor to URL field, it will list the full $value supported.

Note: different Event type, the value have different.

How to using Event

DINSTAR

Event Report

| System | SIP | Recording | Log |

Call Status ⬜

CDRs Info 🔵

   URL Report 🔵   http://172.22.88.172:8080/CDR?SN=$sn&Caller=$caller&Called=$called&Duration=$duration

   Json Format ⬜

Example:

http://172.22.88.172:8080/CDR?SN=$sn&Caller=$caller&Called=$called&Duration=$duration

This URL will report the UC350's SN, the call's Caller, Called, duration to external server.

How to using Event

Note:

❖ **About the voice recording, need enable the recording in extension.**

❖ **UC350Pro will copy the local recording and send out.**

How to using PMS

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PMS Introduction

PMS Configuration

How to using PMS

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PMS Introduction

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PMS: **Property Management System.**

PMS, a software system for managing a property in hotel, features include:Room booking and check-in management, billing and payment processing, customer relationship management.

Address Book

PMS ⌃

   House Keeping

   Checkin Logs

   Room CDR

Room Provider ⌃

   Service Code

   Waiter

   Service Record

Room Manage ⌃

   Room

   Apartment

House Keeping

↻ Refresh Room Status

| Room NO ⌄ | Room NO./Name/ID Card... 🔍 | Position | All ⌄ | Apartment | All ⌄ | Check Out Plan Today ☐ |

Status: [All] | **VC** Vacant·Clean | **VM** Vacant·Mainte... | **VD** Vacant·Dirty | **OC** Occupied·Clean | **OM** Occupied·Mai... | **OD** Occupied·Dirty | **UN** Unavailable

云城1A-2层-6001 Unavailable	云城1A-2层-6002 Unavailable	云城1A-2层-6006 Unavailable	云城1A-2层-6013 Unavailable	云城1A-18层-18... Unavailable
大床房	大床房	大床房	大床房	豪华双床房
📖 6001	📖 6002	📖 6006	📖 6013	📖 6011
👤	👤	👤	👤	👤

PMS Introduction

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Hotel Management requires an additional license to use.

You need to set up Hotel Manager Extension in this page and login to this extension to set up various parameters of the hotel. Other extensions cannot set hotel parameters.

Status	
Trunk & Route	
Extension & Call Group	
Advanced Service	
PBX Global Settings	
Address Book	
CDR & Recording	
System	
Maintenance	
License	
Firmware	
Config	

License

E1/T1 Port	4
SS7 Protocol	enable
Valid Period	90 d
Max Concurrency	100
SIP Extensions	500
Hotel Management	enable
Number Of Hotel Management Operators	1
Hotel Manager Extension	6006 Setting
Attendant Console	enable
Telephone Operator Amount	2

PMS configuration

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2.1 SIP profile in UC Enable WebRTC

PMS configuration

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2.2 SIP Extension set App Password

Status

Trunk & Route   >

Extension & Call Group   ∨

  SIP Extension

  FXS

  Phones

  Ring Group

  Intercom/Paging Group

Advanced Service   >

PBX Global Settings   >

Address Book

Edit SIP Extension

SIP Extension   User Info   SIP Phone

| Basic Settings

Status	⬤
Index	7
Display Name	6006
Extension	6006
SIP Password	•••••••• 👁
App Password	•••••••• 👁

How to using PMS

3.1 PMS Account Login

How to using PMS

3.2 Room Manage--Position

DINSTAR

Address Book

PMS ⌃

House Keeping

Checkin Logs

Room CDR

Room Provider ⌄

Room Manage ⌃

Room

Apartment

Position

Position

Building

云城1A （3）

长沙 （1）

云城1A Floor 3

New

Name	Operation
2层	Edit Delete
3层	Edit Delete
18层	Edit Delete

How to using PMS

3.3 Room Manage—Apartment

DINSTAR

Address Book

PMS

Apartment

House Keeping

Checkin Logs

+ New

大床房 (2)

普通单间 (2)

1房一厅 (3)

Room CDR

Room Provider

双床房 (4)

豪华双床房 (4)

Ordinary Room (2)

Room Manage

Room

New

Apartment

Position

* Name

Deluxe Room

Attendant Console

* Number Limit

Wakeup Clock

2   Person

Personal Settings

Cancel   Confirm

How to using PMS

DINSTAR

3.4 Room Manage—Room

Add Room, set Position/Apartment, and assign extensions.

- Address Book
- PMS
  - House Keeping
  - Checkin Logs
  - Room CDR
  - Room Provider
  - Room Manage
    - Room
    - Apartment
    - Position
- Attendant Console

Room

| Room NO | | Position | All | | Apartment | All | | New | ⋯ |

Single

Batch

	Position	Room NO	Apartment	Extension Number	State	Operation
☐	云城1A-2层	6001	Ordinary Room	6001	● Unavailable	Edit Delete
☐	云城1A-2层	6002	大床房	6002	● Unavailable	Edit Delete
☐	云城1A-2层	6013	大床房	6013	● Unavailable	Edit Delete
☐	云城1A-2层	6006	大床房	6006	● Unavailable	Edit Delete
☐	云城1A-18层	1801	Deluxe Room	6011	● Unavailable	Edit Delete

How to using PMS

3.5 Room Provider—Service Code

Add Service code

How to using PMS

DINSTAR

3.6 Room Provider—Waiter

Add Waiter and set PIN of service

Address Book

PMS ︿

House Keeping

Checkin Logs

Room CDR

Room Provider ︿

Service Code

Waiter

Service Record

Waiter

| | Waiter/PIN | 🔍 | | Delete | New |

	Waiter ID	Waiter	PIN	Operation
☐	3JCU	service1	11	Edit Delete
☐	FKT4	service2	12	Edit Delete

How to using PMS

3.7 Room Provider—Service Record

The Waiter of updating the status of room: *Access Code*Service Code*Waiter PIN Code*Room
This page will show the logs.

How to using PMS

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3.8 House Keeping,

Check the status of rooms for occupancy, maintenance, cleaning, etc.

Address Book
PMS ∧
House Keeping
Checkin Logs
Room CDR
Room Provider ∧
Service Code
Waiter
Service Record
Room Manage ∧
Room

House Keeping

⟳ Refresh Room Status

Room NO ∨ | Room NO./Name/ID Car... 🔍 | Position | All ∨ | Apartment | All ∨ | Check Out Plan Today ☐

Status: | All | **VC** Vacant·Clean | **VM** Vacant·Mainte... | **VD** Vacant·Dirty | **OC** Occupied·Clean | **OM** Occupied·Mai... | **OD** Occupied·Dirty | **UN** Unavailable

云城1A-2层-6001	Unavailable
Ordinary Room	
📖 6001	
👤	

云城1A-2层-6002	Unavailable
大床房	
📖 6002	
👤	

云城1A-2层-6006	Unavailable
大床房	
📖 6006	
👤	

云城1A-2层-6013	Unavailable
大床房	
📖 6013	
👤	

云城1A-18层-18...	Unavailable
Deluxe Room	
📖 6011	
👤	

How to using Attendant Console

06

Attendant Console Introduction

Attendant Console configuration

Attendant Console Using

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Attendant Console Introduction

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The Attendant Console is a feature used to manage call queues and view queues.

Note:
- ❖ Attendant Console requires an additional license to use.

- ❖ Telephone Operator Amount is the number of operators allowed in the queue.

Attendant Console Configuration

2.1 SIP profile in UC Enable WebRTC

DINSTAR

Status

Trunk & Route >

Extension & Call Group >

Advanced Service >

PBX Global Settings ∨

SIP Stack

Codec

FXS/FXO

Voice

Feature Code

Address Book

CDR & Recording >

Edit SIP Profile

Extension Register Lock	⬤
Detect Extension is Online	⬤
DTMF Send Type	RFC2833 ▾
RFC2833-PT	101
Detect Inband When Call in IVR	⬤
Process DTMF as Hold/Unhold	Off ▾
PRACK	⬤
WebRTC	⬤
WebRTC Listening Port	7443
Public Proxy	⬤

Attendant Console Configuration

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2.2 SIP Extension set App Password

Status

Trunk & Route

Extension & Call Group

SIP Extension

FXS

Phones

Ring Group

Intercom/Paging Group

Advanced Service

PBX Global Settings

Address Book

Edit SIP Extension

SIP Extension   User Info   SIP Phone

Basic Settings

Status	🔵
Index	7
Display Name	6006
Extension	6006
SIP Password	••••••••
App Password	•••••••••

Attendant Console Configuration

2.3 Add Call Queue

Refer to the user manual to set up the call queue,point is setting the type to Attendant Console Queue.

Attendant Console Using

3.1 SIP Account Login

Attendant Console Using

3.2 Check in The Queue
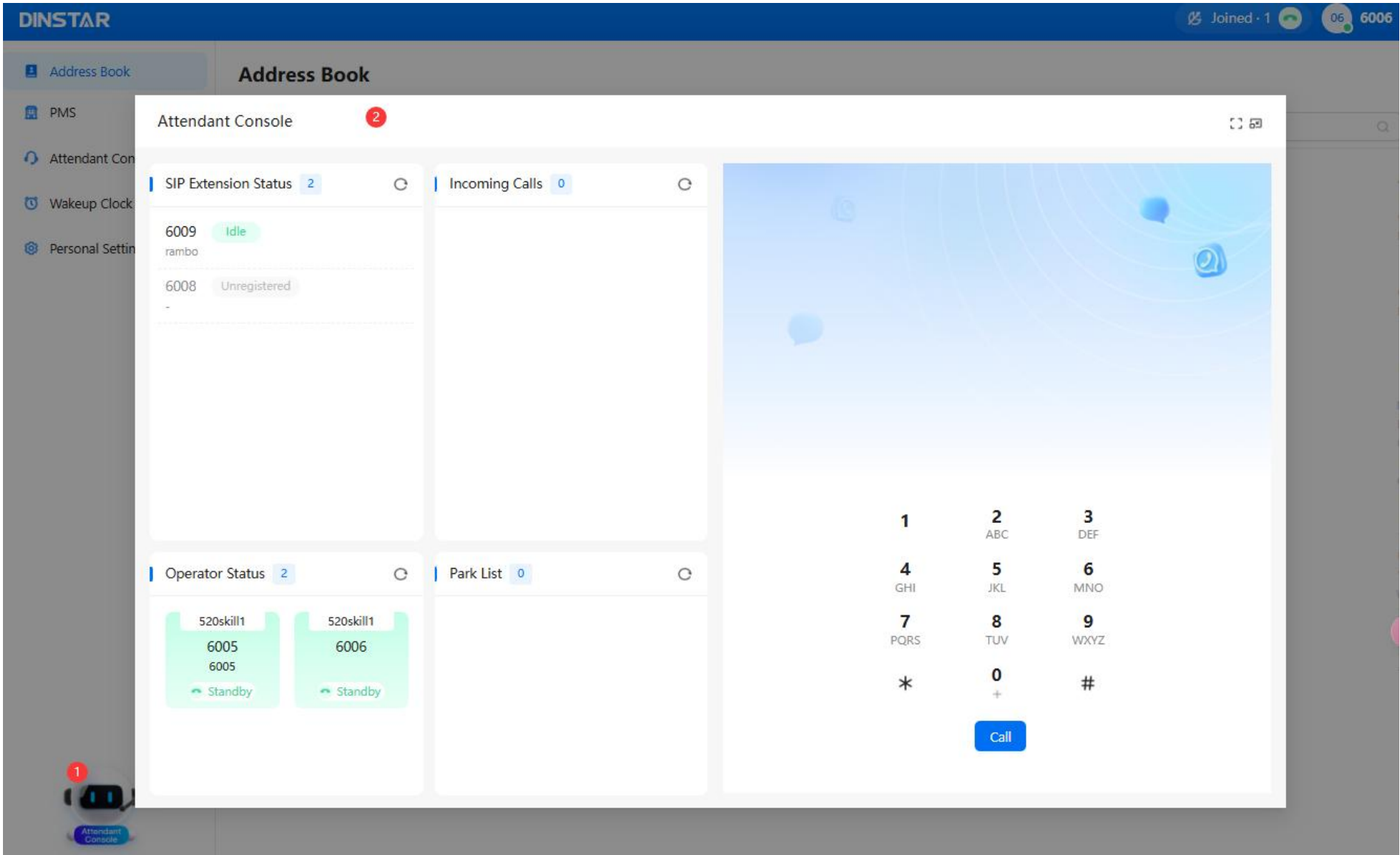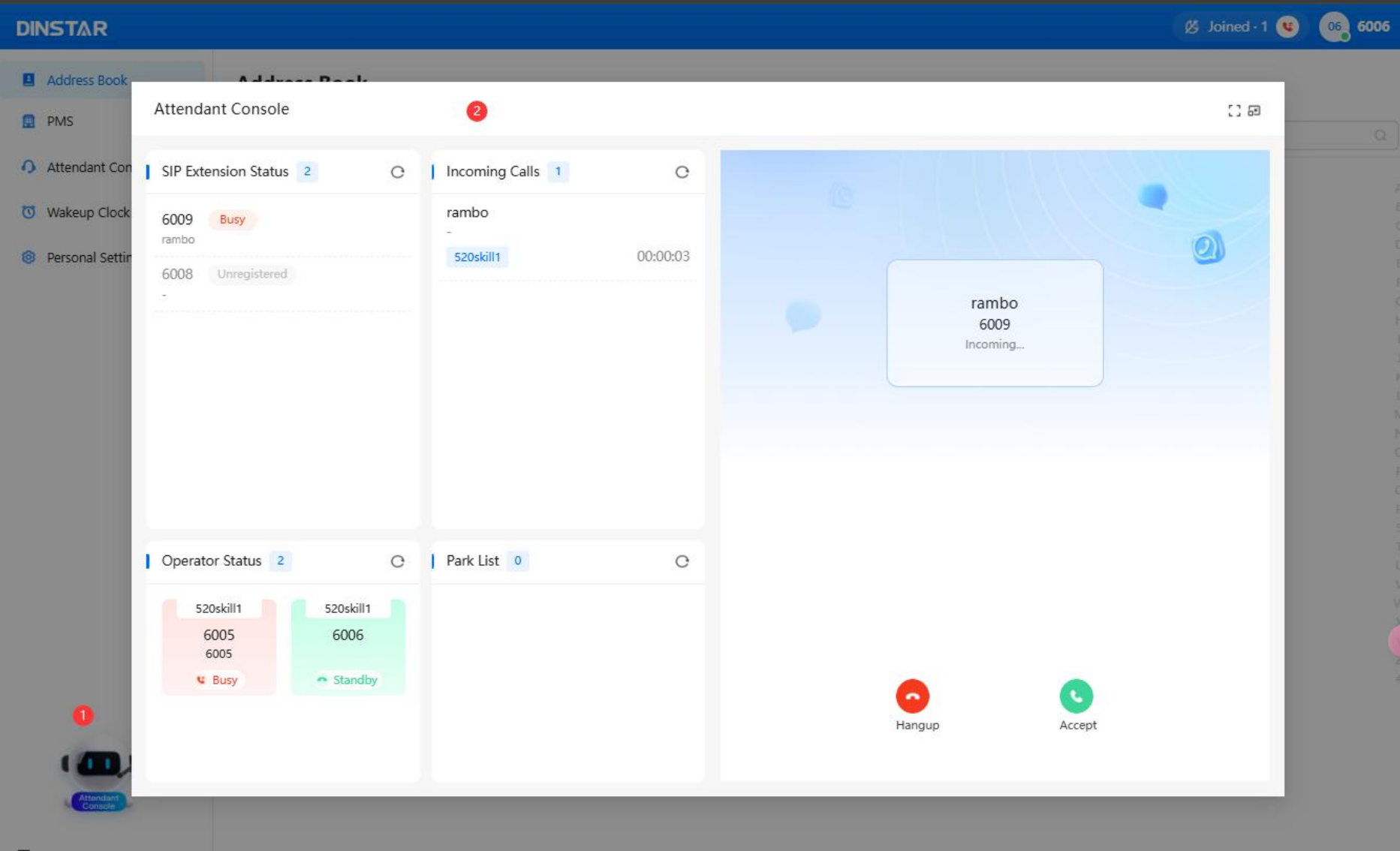
Attendant Console Using

3.3 click Attendant Console Icon to Open Attendant Console

Attendant Console Using

3.4 Check the call status of the queue

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THANKS

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