

English



Deployment user manual

INC Cloud



INC Cloud

Congratulations, you have just purchased a product with Intelbras quality and safety.

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1. About the Intelbras INC Cloud

Intelbras INC Cloud is a light-weight multiservice platform that provides scenario-based solutions, including site deployment, device monitoring, WLAN O&M, data connection and application for small and medium-sized enterprise office and business networks, and branch chain scenarios.

2. Agile deployment

If you are familiar with the basic concepts of branches, nodes, sites, devices, and accounts in the INC Cloud, perform the following procedure to complete agile deployment:



2.1. Restrictions and guidelines

- » Some features in this document are restricted only to China mainland.
- » After deploying the INC Cloud, you can view and configure other features of the INC Cloud. For more information about INC Cloud authentication, see *Intelbras INC Cloud Authentication User Guide*. For more information about the features available in the INC Cloud, see *Intelbras INC Cloud Feature Guide*.

2.2. Register an account

About INC Cloud accounts

The INC Cloud provides six levels of accounts: tenants (parent accounts) and up to five-level subaccounts. A parent account has the highest permissions. For a subaccount, the supported INC Cloud features are determined by its role and the manageable branches and sites are authorized by its parent account.

After registration, you can use the parent account or a subaccount to log in to INC Cloud. For more information about subaccounts, see managing subaccounts in *Intelbras INC Cloud Feature Guide*.

Procedure

1. Access the Intelbras INC Cloud at <https://inccloud.intelbras.com.br>, and then click *Register*.



Accessing the INC Cloud

2. Fill in information as required.

Username

(8-32 chars that start with a letter.
Only letters, digits, and underscores (_) are allowed.)

Email

Password

8-32 chars.

Confirm Password

Please confirm password

☐ Agree

[User Agreement](#)

[Privacy Policy](#)

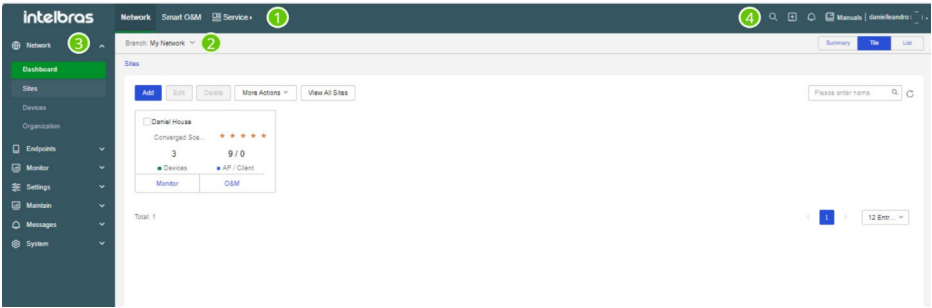
Complete

Already have an account? [Login](#).



Registering an account

2.3. Log in to the INC Cloud

Access the Intelbras INC Cloud at <https://inccloud.intelbras.com.br>, enter the username or email address and the password, and then click Sign In. You are placed on the home page of INC Cloud. The following is the webpage layout of INC Cloud:



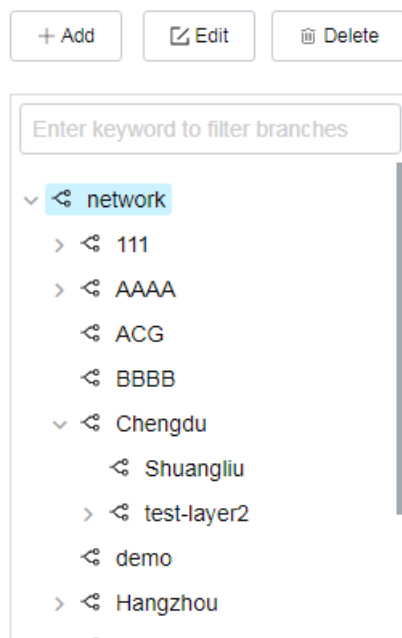
Webpage layout

- 1. **Top navigation bar:** contains functionality categories. If you click a category, the navigation pane displays all features and functionalities of that category.
- 2. **Scenario menu:** allows you to select sites or branches as needed.
- 3. **Left navigation pane:** contains menus of all features and functionalities. If you select one menu item, the right panel section displays the work pane for that item.
- 4. **Work pane:** provides an area for you to manage, configure, and monitor the system, features, and services depending on the menu item you select in the navigation pane. This area also allows you to toggle among tile  and list  views as needed.

2.4. Manage branches and sites

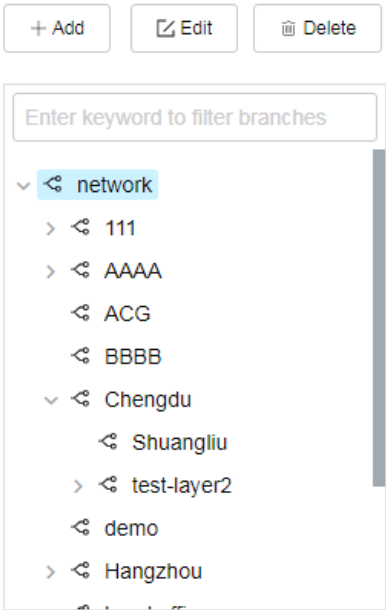
About branches and sites

In the INC Cloud, a branch contains multiple sites. The number of sites in a branch is not limited. You can classify branches by region, brand, or relation.



Branch classification


You can add devices of various types in the same network into the same site. The number of devices in a site is not limited.



Sites

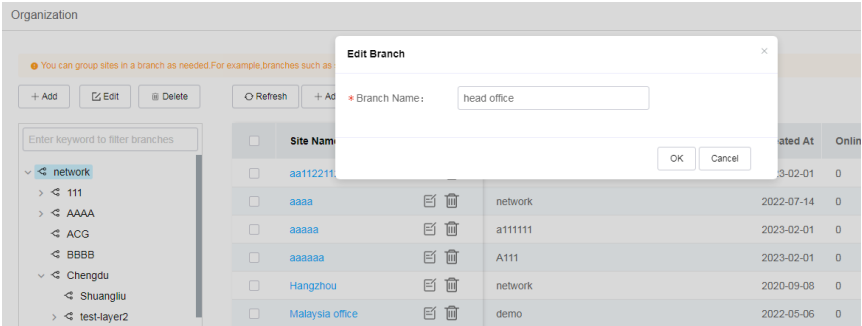
Restrictions and guidelines

To delete a branch that contains a subordinate branch or site, first delete the subordinate branch or site.

To add a site quickly, click the *Add* icon  in the administrative section and then select *Site*.

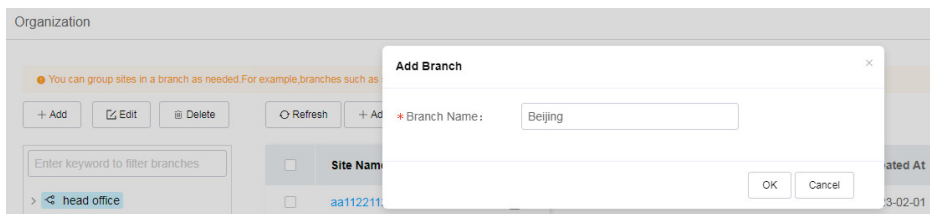
Procedure

- 1. On the top navigation bar, click *Network*.
- 2. To rename a root branch node, perform the following steps:
 - » From the left navigation pane, select *Network > Organization*.
 - » Select root branch node *network* and then click *Edit* to rename the root branch node as head office.



Renaming a root node

3. To add a branch, select root node *head office*, click *Add*, and then enter a branch named *Beijing*.

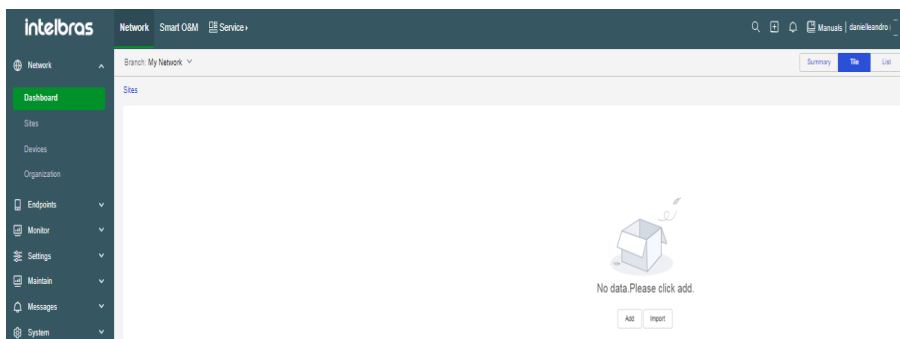


Adding a branch

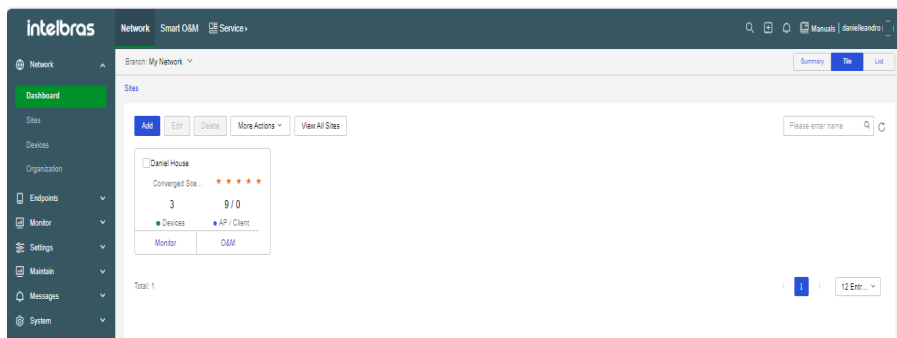
4. To delete a branch, select the branch and then click *Delete*. The root branch node cannot be deleted.

5. To add a site, perform the following steps:

- » From the left navigation pane, select *Network > Dashboard*.
- » If it is the first time you add a site, click *Add*. If a site already exists, click *Add* in the site list area to the right of the page. Click *OK*.



Adding a site for the first time



Adding a site when a site already exists

- » Specify a scenario type according to the device type and then click *Next*.

Add Site ✕

1 — 2 — 3
Scenario Type Site Name Select Address

Site Type **General** ⓘ

Model	Q
AP3620	
AP3620H	
AP3620X	
AP3622	
AP5400AX	
AP5620	
AP5620XDE	
AP5626	

Total entries: 58 , current entries: 1 - 8. Page 1 of 8

< 1 2 3 ... 8 >

Cancel Next

Specifying a scenario type

- » Select the *Branch list*, specify a site name, select the industry, and then click *Next*.

Add Site ✕

✓ — 2 — 3
Scenario Type Site Name Select Address

* Site Name

* Branch [Branch Management](#)

* Industry

Contact

Description

Cancel Previous Next

Specifying a site name

- » Select the site address and then click *OK*.

Add Site

Scenario Type Site Name **Select Address**

Detailed Address: Rodovia BR 101, km 210 Sin - São Jc

Cancel Previous **OK**

Selecting the address

Export sites

To back up all sites of the current INC Cloud account, perform this task to export site information. The exported site list will be saved to the default downloading folder in the browser.

Procedure

1. On the top navigation bar, click *Network*.
You are placed on the *Dashboard* page.
2. Select a branch or site from the scenario menu.
3. Click *More Actions* and then select *Export*.

Sites

Site Name	Scenario	Contact	Created At	Online Users	Routers	Switches	ACs	APs	
aa1122112	network	UA	2023-02-01	0	0/0	0/0	0/0	0/0	Export
aaaaa	network		2022-07-14	0	0/0	0/0	0/0	0/0	Export
aaaaa	a111111		2023-02-01	0	0/0	0/0	0/0	0/0	Export
aaaaaa	A111		2023-02-01	0	0/0	0/0	0/0	0/0	Export
Hangzhou	network		2020-09-08	0	0/0	0/0	0/0	0/0	Export

Exporting sites

Import sites

1. On the top navigation bar, click *Network*.
You are placed on the *Dashboard* page.
2. Click *More Actions* and then select *Import*.
3. Click the *Download Template* link.
4. Fill in the template file as needed.
5. Click the Upload File field to select the template file, and then click *OK*.

Import Sites

Upload File * Bulk Add Sites Template.xlsx Download Template

OK Cancel

Importing sites

Configure a site label





Perform this task to distinguish among different sites.

Restrictions and guidelines

Only tenants can configure a site label.

The number of site labels cannot exceed 10.

Procedure

1. On the top navigation bar, click *Network*.
You are placed on the *Dashboard* page.
2. Click *More Actions* and then select *Manage Site Labels*.
3. Click *Add*, enter the required information, and then click *OK*.
If you select *Select from Drop-down List* from the *Data Input Method* field, you must select option values from the *Options* field.
4. To edit a site label, click the *Edit* button  for the target site label.
5. To delete a site label, click the *Delete* button  for the target site label.
Deleting a site label will delete the records saved for the site label in all sites of the account. Please be cautious.
6. To view site label information, click the *Columns* icon .
7. To add a site label for an existing site, click the *Edit* button  for the site.

Access the summary view

Perform this task to view network summary information for a branch.

To access the summary view:

1. On the top navigation bar, click *Network*.
2. From the left navigation pane, select *Network > Dashboard*.
3. Click *Summary* at the upper right corner of the work pane.
4. Click the target branch or enter the branch name.

The page that opens displays the following information:

- » **Summary:** alarm statistics, numbers of sites, devices, APs, and clients, client traffic, and health score.
- » **Service statistics:** health score trend, site ranking by health score, device disassociation trend, site ranking by device disassociations, AP disassociation trend, site ranking by AP disassociations, client quantity trend, site ranking by client quantity, client traffic trend, site ranking by client traffic, alarm quantity trend, and site ranking by alarm quantity in the specified time range.
- » **Site list:** information about sites in the branch, including site name, health status, online devices, and offline devices. To view information about a site, click the site name.

Access the map view

Perform this task to view the distribution of sites in a branch on a map.

To access the map view:

1. On the top navigation bar, click *Network*.
2. From the left navigation pane, select *Network > Dashboard*.
3. Click *Map* at the upper right corner of the work pane.
4. Click the target branch.

The map opens. A red dot represents the geographic location of a site.

2.5. Configure devices

Add a device


Prerequisites

Before adding a device to the INC Cloud, perform the following tasks:

1. Make sure the device can access the Internet.
2. Make sure the device can resolve the INC Cloud server address.
3. Execute the cloud-management server domain *INC Cloud.intelbras.com* command on the device to connect the device to the INC Cloud.

Restrictions and guidelines

To ensure the correct operation of cloud features, execute *tcp mss 1400* on the device network egress (physical port or VLAN interface) after connecting the device to INC Cloud.

To add a site quickly, click the *Add* icon  in the administrative section and then select *Device*.

If you fail to add a device to the INC Cloud because it has been added to the INC Cloud by other accounts, first unbind the device from the INC Cloud. For more information about device unbinding, see *Unbind a device*.

Procedure

1. On the top navigation bar, click *Network*.
2. From the left navigation pane, select *Network > Devices*.
3. Click *Add Devices*.
4. Select a site, enter a device name and serial number, and click *Add Device*.
 - » To add a non-IRF member device, select *General* from the IRF Member field.
 - » To add an IRF device, select *IRF* in the IRF Member field. Then, select a group or add a new group. Member devices of an IRF fabric must be added to the same group.

Add Device

Device Info

Site:

aa1122112

No site exists? Add Now

* Device Name ⓘ:

Up to 30 characters

* SN:

11-64 chars.

IRF Member:

General



IRF

Add Device

Manage a device

Perform this task to edit the device name, delete the devices in bulk or view device information.

Procedure

1. On the top navigation bar, click *Network*.
2. From the left navigation pane, select *Network > Devices*.
3. Select a site or all sites of a branch.
4. To delete one or more devices, select target devices and then click *Delete*.
Deleting a device from a site will delete the device data stored in the INC Cloud but will not delete the settings on the device.
5. To change the name of a device, click the *Edit* icon  for the device.
6. To restart a device, select the device, and then click *Restart*. You can restart online devices.
7. To reset the cloud connection if connection errors exist, select the device, click *More*, and then click *Reset Cloud connection*. The system disconnects and then reconnects the device.
8. To upgrade a device, select the device, click *More*, and then click *Upgrade*. You can upgrade online devices. To select the target version, access the *Maintain > Upgrade page*.
9. To access the CLI of a device, select the device, and then click *CLI Helper*. You can then execute commands to configure the device.
10. To manage the file system of a device, select the device, and then click *File System*.
11. To access the local Web interface of a device, select the device, and then click *Local Management*. This feature is supported only by online devices of specific versions.
12. To save the running configuration, select the device, click *More*, and then click *Save Config*.
13. To deploy configuration to a device, select the device, click *More*, and then click *Deploy Cfg*.
 - » **Deploy Configuration:** configure a configuration template or read settings from an existing configuration template. To save the template configuration, click *Save*. To deploy settings in the template immediately, click *Deploy Immediately*. To deploy settings in the template as scheduled, click *Deploy on Schedule*. To create a scheduled deployment task, you must also specify the execution time.
 - » **Scheduled Deployment Tasks:** view information about scheduled deployment tasks, or delete, start, suspend, or edit the tasks.
 - » **Deployment Records:** view configuration deployment records. To view the template content, click the  icon.
14. To move a device from a site to another, select the device, click *More*, and then click *Migrate*. Device migration might cause loss of some configurations. You can configure the lost settings in the new site.



Note:

Device migration can be performed between sites managed by the same account. You cannot use device migration to move devices to a site managed by another tenant.

15. To view basic information, port information, and running information for a device, click the name of the device. Displaying of port information is supported only in version 5412 and later.
- On the page that opens, perform the following tasks:
- » To perform basic operations such as restart, upgrade, and save configuration on the device, click the corresponding icon.
 - » To perform local management for the device, click *Local Management*.
Only online devices of specific versions support local management.
 - » To view detailed information about the device, click the *Details* tab on the page.

	Release	Devices	Restart	Local Management	CLI Helper	File System	More	Enter device name	Advanced Search
<input type="checkbox"/>	State	Edit	Device Name	SN	Category	Model	Site	Device Version	
<input type="checkbox"/>	●	📄	SWITCH	219801A1M/V9171Q00004	Switch	S5130S-28P-HPWR-EI	test	Release 6311 Updatable	
<input type="checkbox"/>	●	📄	ROUTER	210235A0WAM155000151	Router	MSR2630	test	Release 0809P28	
<input type="checkbox"/>	●	📄	CLOUD AP	219801A1NRB18AE0001Y	Cloud AP	WA530-WW	test	Release 2438 Updatable	
<input type="checkbox"/>	●	📄	AC1810	219801A18BC176000014	AC	WX1810H-PWR	Malaysia office	Release 5456	
<input type="checkbox"/>	●	📄	AC	219801A0WVF9172Q00096	AC	WX2560H	Wangjing HQ	ESS 5427	
<input type="checkbox"/>	●	📄	AC	219801A18A9173Q00010	AC	WX1804H-PWR	test	Release 5430P03	

Managing a device

ROUTER

DeviceDetails

Local Management

CLI Helper

Restart

Reset Cloud Connection

Upgrade

File System

Save Config

Deploy Cfg

Basic Info

SN:210235A0WAM155000151

Type:Router

Version:Release 0809P28

Model:MSR2630

Site:test

Port Info

Uptime:2023-02-13 14:33:51

Running Information

Connection State:Connected

Uplink Rate:3.0Kbps

Online Duration:00d:01h:25m:14s

Downlink Rate:13.0Kbps

CPU

Client:0

Memory:55%

Close

Viewing device information

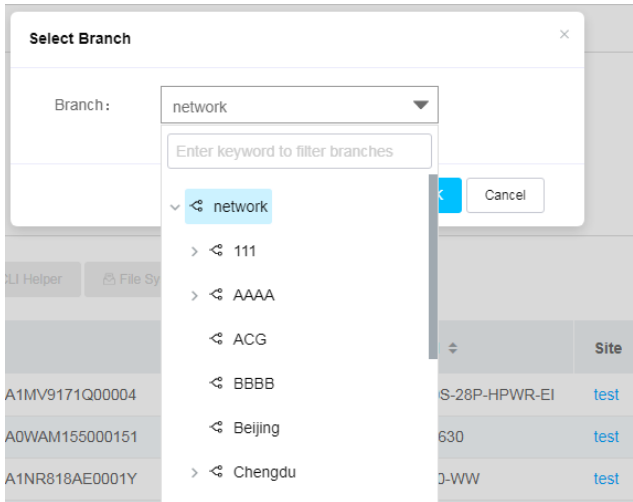
Export devices

To back up information about devices connected to the INC Cloud, perform this task to export device information. The exported device information will be saved to the default downloading folder specified in the browser.

Procedure

1. On the top navigation bar, click *Network*.
2. From the left navigation pane, select *Network > Devices*.
3. Click *More* and then select *Export*.
4. Select a branch and then click *OK*.

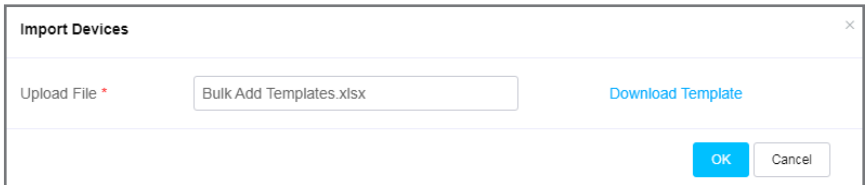
All devices in the branch will be exported.



Exporting devices

Import devices

1. On the top navigation bar, click *Network*.
2. From the left navigation pane, select *Network > Devices*.
3. Click *More* and then select *Import*.
4. Click the *Download Template* link.
5. Fill in the template file as needed.
6. Click the Upload File field to select the template file, and then click *OK*.



Importing devices

Unbind a device

Restrictions and guidelines

Support for device unbinding depends on the device model and version.

Only tenants can unbind devices from the INC Cloud. A tenant can perform up to five unbind operations in a day.

If you fail to add a device to the INC Cloud because it has been added to the INC Cloud by other accounts, first unbind the device.

Procedure

1. On the top navigation bar, click Network.
2. From the left navigation pane, select *System > Device Unbinding*.
3. On the page that opens, perform the following steps:
 - » Enter the serial number of the device and copy the generated unbinding code (unbinding command).
 - » Execute the command in system view from the CLI of the device.
 - » Click *Refresh* to view the unbinding result on the page.

Support for device unbinding depends on the device software version.
You can perform up to five unbind operations in a day.

To unbind the device from an account:

1. Enter the serial number of the device and copy the generated unbinding code (unbinding command).
2. Execute the command in system view from the CLI of the device.
3. Verify the unbinding result on this page.

Device SN

Obtain Unbinding Code

Refresh

Unbinding a device from the INC Cloud

2.6. Automated deployment

Automated deployment operates as follows:

1. Add a gateway to the site on the cloud platform. For more information, see *Add a device*.
2. Configure the gateway WAN port through a USB disk or from the local Web interface, and make sure the gateway can reach the cloud platform. Make the gateway come online from the platform.
3. Configure DHCP Server on the gateway.
dhcp option 252 + *Site password*
dhcp option 253 + *INC Cloud.intelbras.com*

Note:



- » The site password is bound to the cloud platform site, and internal network devices will automatically be added to the site corresponding to the site password. The site passwords for the cloud platform sites can be viewed in the exported Excel file by going to *Network > Dashboard > More Actions > Export*.
- » Configure the DHCP options for the gateway first for the internal network devices to obtain IP addresses.

4. Internal network devices obtain IP address and other configurations through DHCP from the gateway, connect to the gateway, and then automatically connect to the cloud platform. The devices are added to the corresponding site. Automated deployment is complete.

2.7. Area management

Only AC+fit AP and cloud-managed AP networks support this feature.

Only ACs of version 5412 or later support full region management functions.

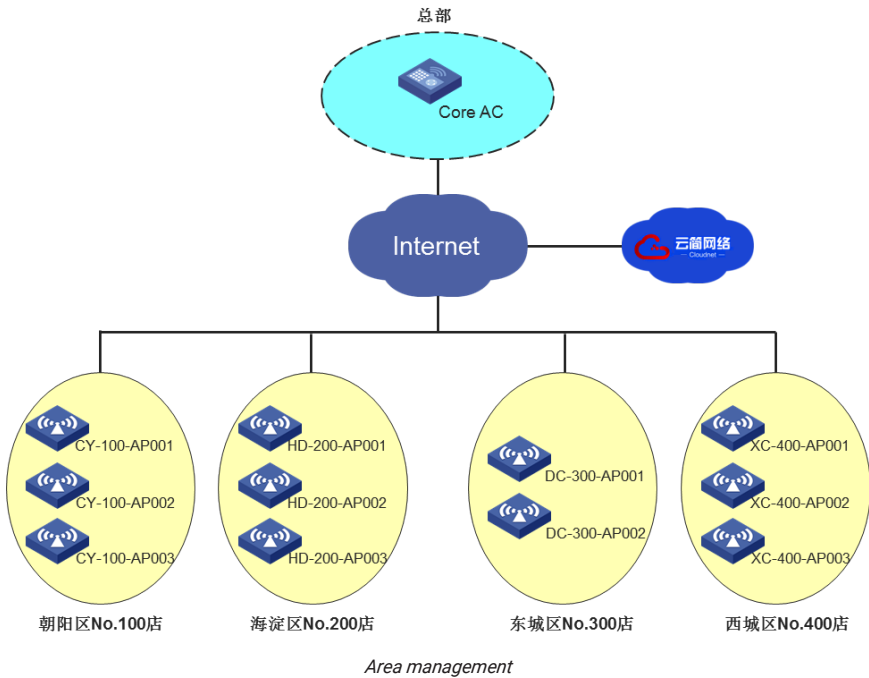
About area management

In a typical “headquarters-branch” structured enterprise, ACs and APs are deployed separately at the headquarters and branches to provide wireless access services. By configuring multi-level branches and multiple sites, devices can be easily divided according to geographic location and hierarchy. For enterprises where all the APs at branches are registered across the public network to the headquarters AC, it is impossible to manage multiple sites separately for each AP. Therefore, all APs can only be stacked in one site under the root branch. In this case, the problem of managing too many APs in the same site becomes very tricky. The area management function effectively solves this problem.


The core idea of area management is to apply the site division method to the area. That is, all APs under the same site are divided into different areas according to geographic location, store name, brand, and other rules. In a sense, the concept of *area* is a refinement of the *site* concept.


As shown in *Figure Area management*, a central AC is deployed at the headquarters, and multiple APs are deployed in each branch location across different sites. All APs are registered with and directly managed by the central AC at the headquarters. Under the site where the AC is located, multiple areas can be created based on geographic regions or store numbers, and each branch’s APs can be added to their corresponding areas. After deployment, administrators can carry out precise management and operations for each area with the area management function.

As a best practice, use area management when a site contains a large number of APs.







Configure area management

- 1. On the top navigation bar, click *Network*.
- 2. Access the *System > Service Switch*. On the *Smart O&M* tab, enable the smart O&M feature for the target sites.
- 3. Access *Network > Sites*, and click the *Area Management* tab.
- 4. Click *Edit*.
- 5. Click *Add* to add an area. Specify the area name. To add multiple areas, click the plus sign .
- 6. Add APs. You can add APs immediately after creating a site or access the *Area Management – Edit Area* page to add APs to any areas.

To add APs to an area, click the *Add AP* icon  in the *Actions* column for the target area on the *Areas with Bound APs/AP Groups* or *Areas Without Bound APs/AP Groups* tab. You can add or remove one or multiple APs as needed. Then, click *Submit*.

On the *Area Management – Edit Area* page:

- » To edit the name of an area, click the  icon for the area.
 - » To delete an area, click the  icon for the area. You cannot delete an area that has bound APs.
 - » To delete multiple areas in bulk, select the areas and then click *Bulk Delete*. You cannot delete an area that has bound APs.
- 7. To view information about areas in tile view, click the  icon on the *Area Management* page. You can view the score, number of online clients, total uplink AP rate, and total downlink AP rate in each site.
 - 8. To view information about areas in list view, click the  icon on the *Area Management* page. You can view detailed information about each area, including health score, and AP quantity.

The section above the area list shows the number of areas with different evaluations, including excellent, good, fair, and offline. You can click on an evaluation button to filter and view the areas with a specific evaluation.

Level	Score range
Excellent	≥80
Good	≥65 and <80
Fair	<65

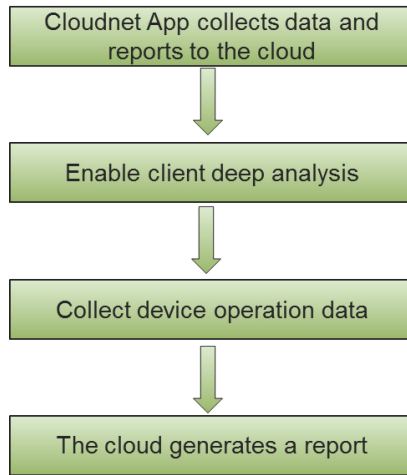
AP health evaluation

The area score and health evaluation are based on the AP scores within the area. If no online APs exist in the area, the area will be marked as offline.
Before moving an AC to a new site, first remove the APs managed by the AC from the original area and then add them to the corresponding area in the new site. If you do not do so, the APs may not be visible in the new site.

2.8. Acceptance check report

About the acceptance check report

After the project implementation or after the network has been operating for a period of time, inspectors or patrols may need to view the operation of the wireless network and the terminal experience. The acceptance check report provided by INC Cloud provides rich data support, including equipment operation, AP operation, wireless environment, and client access experience information.



Generating an acceptance check report

As shown in *Figure Generating an acceptance check report*, an acceptance check report is generated as follows:

1. Use project acceptance of INC Cloud App to conduct tests near multiple AP locations, collect wireless environment data, and report it to the designated site under the designated account of INC Cloud.
2. Enable deep analysis on devices as needed to analyze client access.
3. Run the devices for a period of time (7 days recommended) to collect complete operation data.
4. Configure acceptance check report on INC Cloud and customize the report content.

Configure acceptance check report

1. On the top navigation bar, click *Network*.
2. From the left navigation pane, select *Network > Sites*. Click the *Acceptance Check* tab.
3. Specify the project name and sites from which data are to be exported, specify the data collection time, and select the report content. Then, click *Generate Acceptance Report*. You can also download or print the report on the report preview page as needed.

You can custom the following types of report content:

- » **Device operation:** this section includes AC capabilities, AC stability, AP stability, and access terminal information. All the data are provided by smart O&M. Therefore, you must enable smart O&M for the designated site.
- » **Acceptance check:** this section includes signal coverage, channel interference, Ping delay, webpage loading, and external network speed. All the data are provided by INC Cloud App.
- » **Deep analysis:** this section includes analysis of client access time and analysis of DHCP access time. It only takes effect when the client deep analysis function is enabled on the device. Some statistical data of ACs require software version 5420 or later.

The data collection time setting affects only device operation and deep analysis data.

3. Related documentation

- » For more information about INC Cloud authentication, see *Intelbras INC Cloud Authentication User Guide*.
- » For more information about INC Cloud functionality, see *Intelbras INC Cloud Feature Guide*.

intelbras



talk to us

Customer Support:  +55 (48) 2106 0006

Forum: forum.intelbras.com.br

Support via chat: chat.apps.intelbras.com.br

Support via e-mail: suporte@intelbras.com.br

Customer Service / Where to buy? / Who installs it?: 0800 7042767

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