

# **MACC-INTL Mobile Access Cloud Center Datasheet**

Networks Co., Ltd.

All Rights Reserved

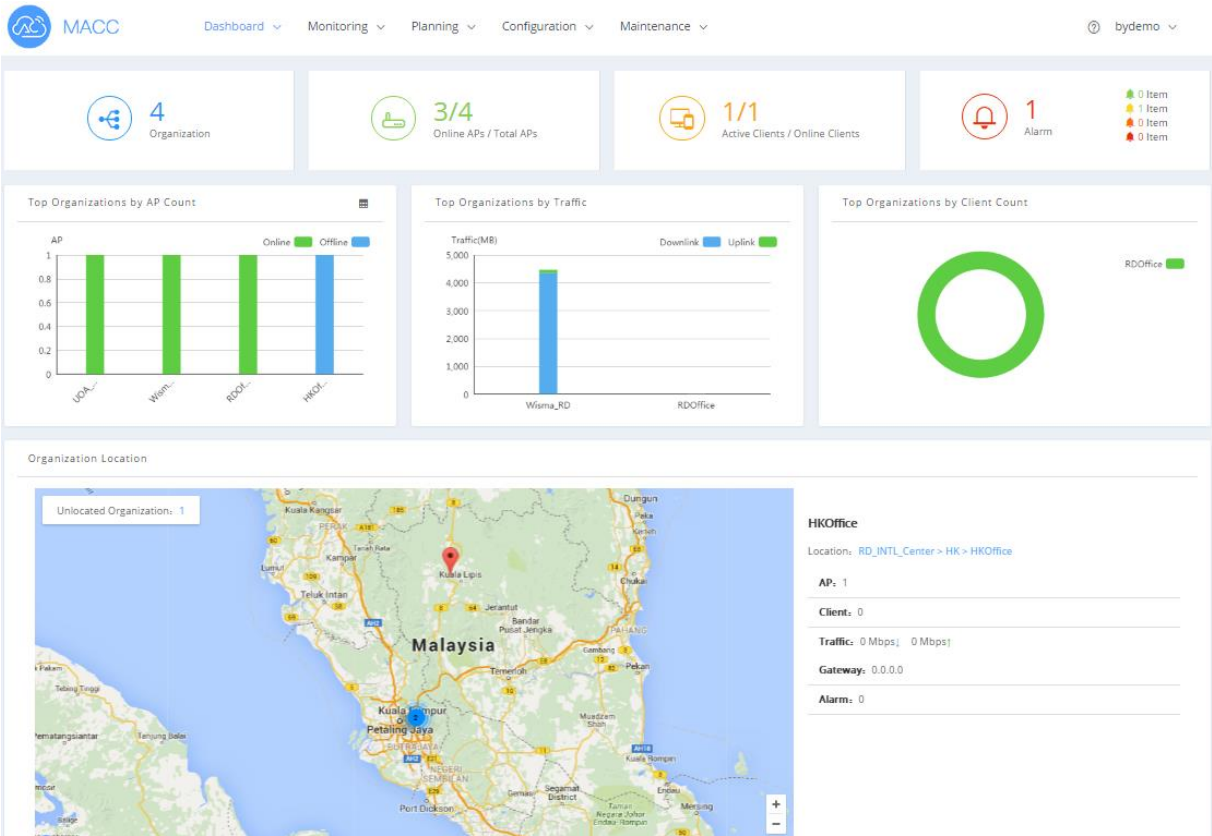
## Revision Record

Revision Date	Version	Revised Sections	Details	Authors
2016-6-26	V2.1	Draft	- Chinese version completed	HQ Headquarter
2016-6-27	V1.0	Draft	- English translation completed	HK Translation Team
2016-7-4	V1.1	All	- Update product features	HK Translation Team

# Contents

1	Product Picture .....	3
2	Product Overview .....	4
3	Product Features .....	5
3.1	Cloud Planning .....	5
3.1.1	Intuitive Deployment on Map .....	5
3.1.2	Seamless Roaming .....	5
3.2	Cloud Configuration.....	6
3.3	Cloud Control .....	6
3.3.1	Smart Status Monitoring.....	6
3.3.2	Master Real-time Online User Experience .....	7
3.3.3	Operating Status / Offline Alerts and Other Warnings .....	8
3.3.4	Diversified Data Reports .....	9
3.4	Cloud Operation and Maintenance .....	9
3.4.1	Management with Ease.....	9
3.4.2	Centralized Upgrade Control .....	10
4	Technical Specifications .....	11
5	Typical Applications .....	13
6	Ordering Information .....	14
7	More Information .....	16

# 1 Product Picture



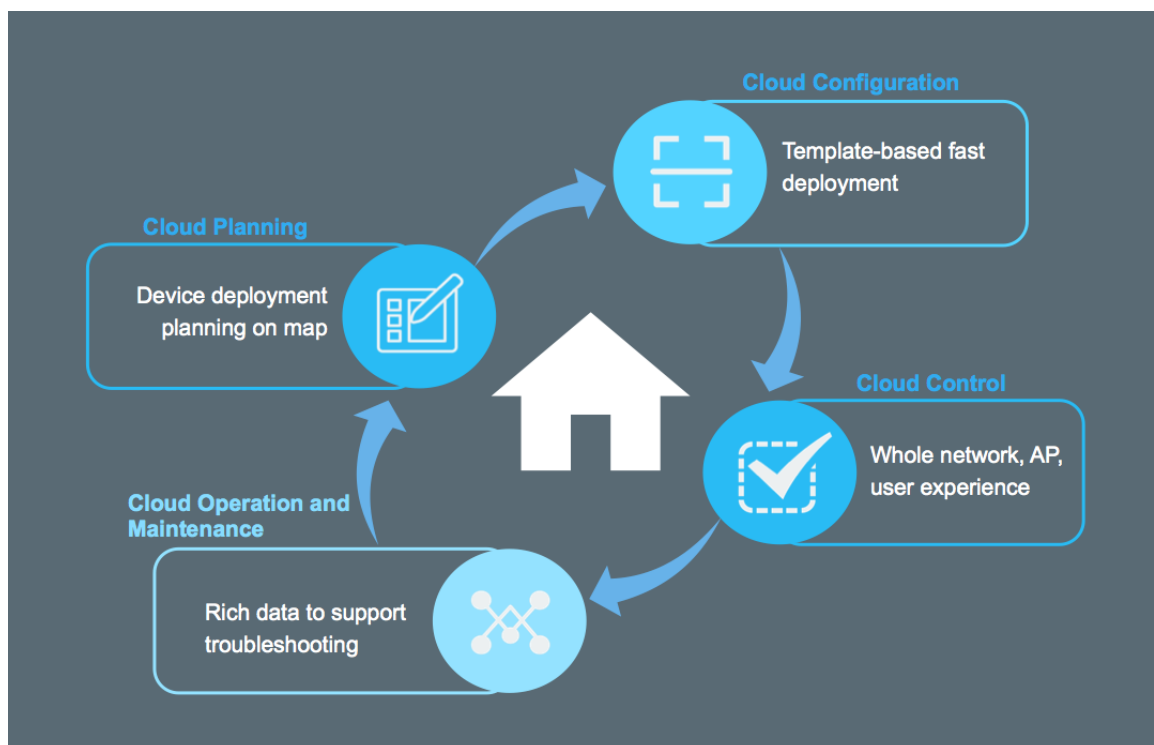
MACC-INTL Main Interface

## 2 Product Overview

MACC-INTL (Mobile Access Cloud Center, MACC in short) is a newly launched cloud Wi-Fi management platform designed for chain stores, small and medium businesses, enterprise branches, network carriers and settings alike. In conjunction with leading platforms from including MCP (Marketing Cloud Platform), LBS (Location-Based Services), RBIS (Business Intelligence Analysis System), the MACC software offers you a holistic solution for cloud wireless management. The MACC supports device planning, configuration, control, and operation and maintenance on cloud. The platform largely reduces the total cost of investment while ensures high usability of the Wi-Fi network.

Chain store Wi-Fi management is used to be a headache. The branches are usually widely spread and each has independent network devices deployed. The MACC provides an easy solution to centrally manage all the Wi-Fi devices. Traditionally, the AC implements close coupling for AP management, which is more suitable for large-scale AP control within the LAN. On the other hand, the MACC platform deploys loose coupling to completely separate management and data for a better wireless environment.

Teaming up with access point series, the MACC does not only achieve AP management with ease, but also works like a physical AC. The cloud platform supports wireless control features such as auto power and channel adjustment, RF management and optimization, L2/L3 roaming and beyond. With MACC, Wi-Fi management has never been easier.

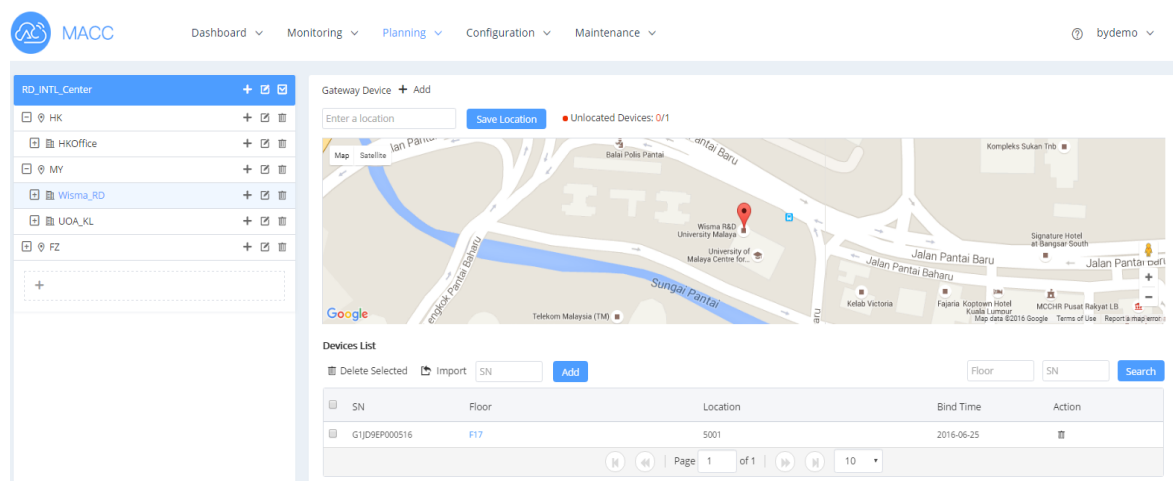


## 3 Product Features

### 3.1 Cloud Planning

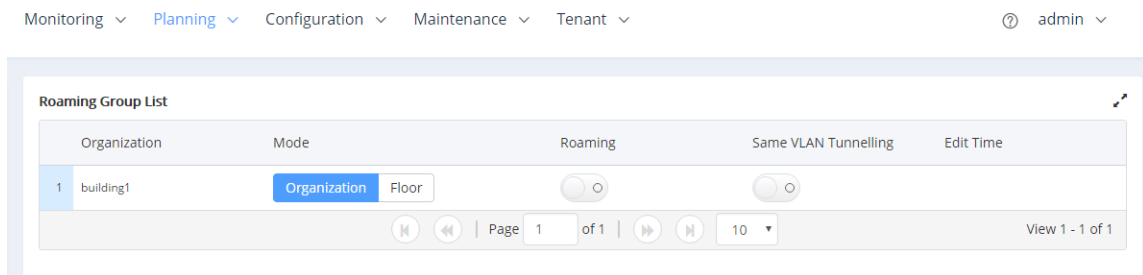
#### 3.1.1 Intuitive Deployment on Map

The MACC achieves location and RF planning for power and channel auto organization and optimization. For projects of any sizes, careful deployment planning always plays a critical role. It provides clear and easy guidance for any technical staff to carry out the installation work. The MACC supports deployment design based on map or floor plan, making it more intuitive and easier to master.



#### 3.1.2 Seamless Roaming

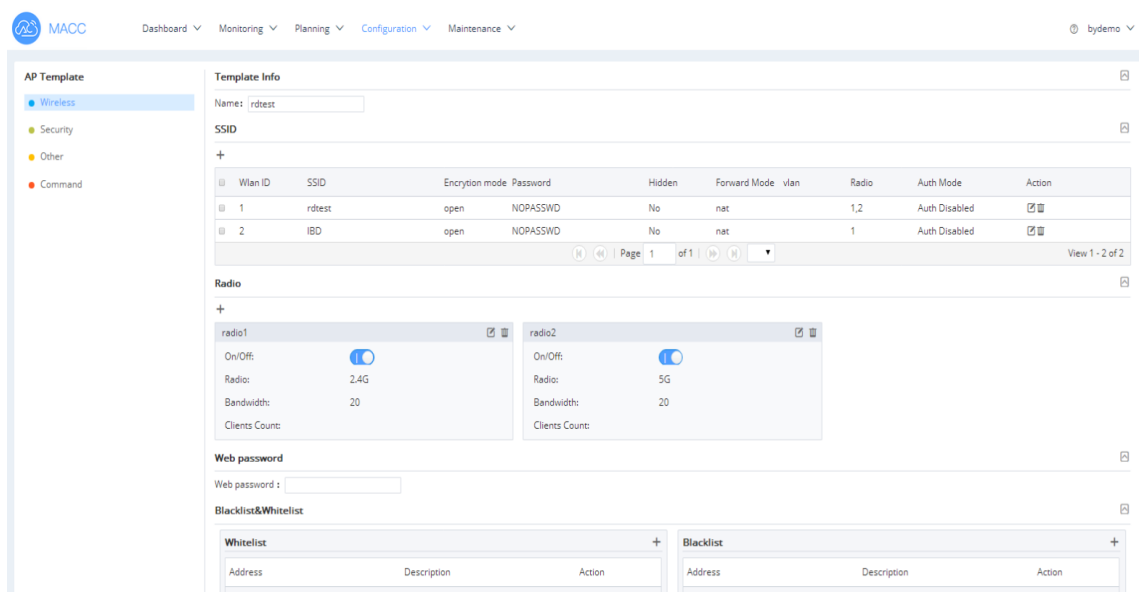
The platform supports seamless L2/L3 roaming for local APs. When roaming is enabled, any end device can smoothly and seamlessly switch among multiple wireless networks. No reconnection or extra configuration is required.



## 3.2 Cloud Configuration

The MACC supports template-based configuration in batch. You can create several templates and assign each with a unique set of SSID, radio, user authentication mode, blacklist/whitelist, CLI and so on.

Get any new device group up and running right away. Just select a suitable template and once assigned, all AP members can be centrally configured in no time. Administrator no longer needs to tediously configure the AP one by one.



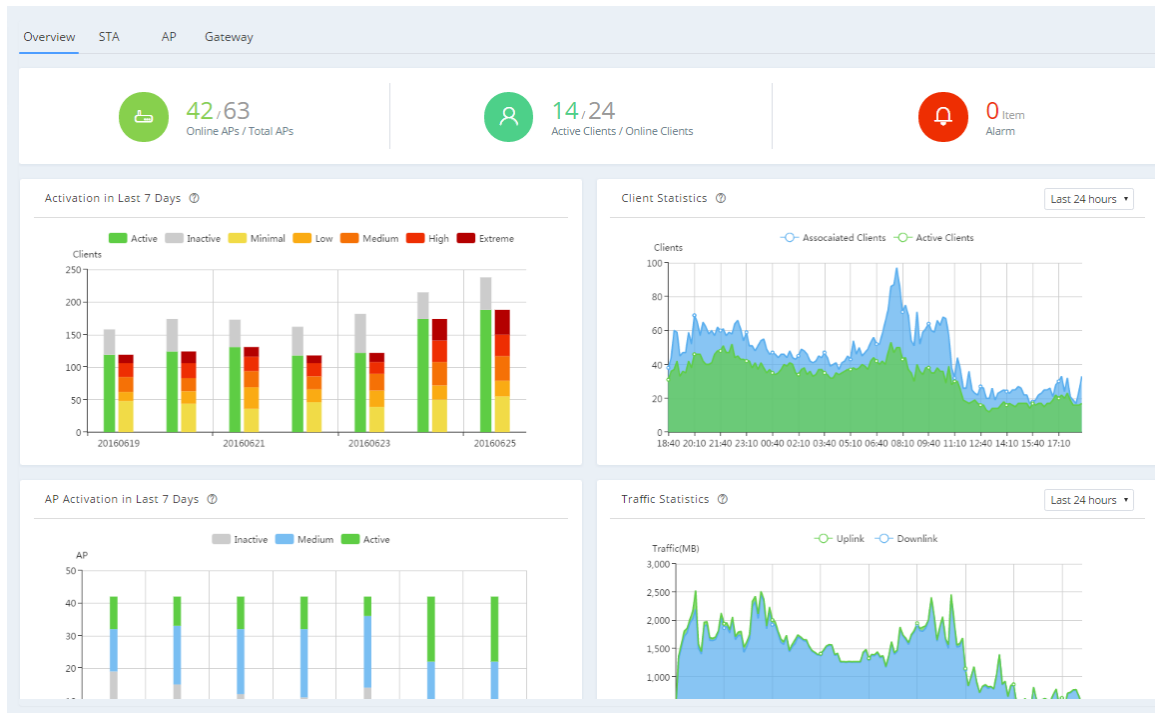
## 3.3 Cloud Control

### 3.3.1 Smart Status Monitoring

Visualize and monitor all device and user status in a unified manner. You can check and monitor

the device profile in real time, including AP online/offline count, hardware utilization, connection status, graphical traffic trend, etc. Other multi-dimensional details like online user endpoint count and user's level of activity in past 7 days are also available for easy reference.

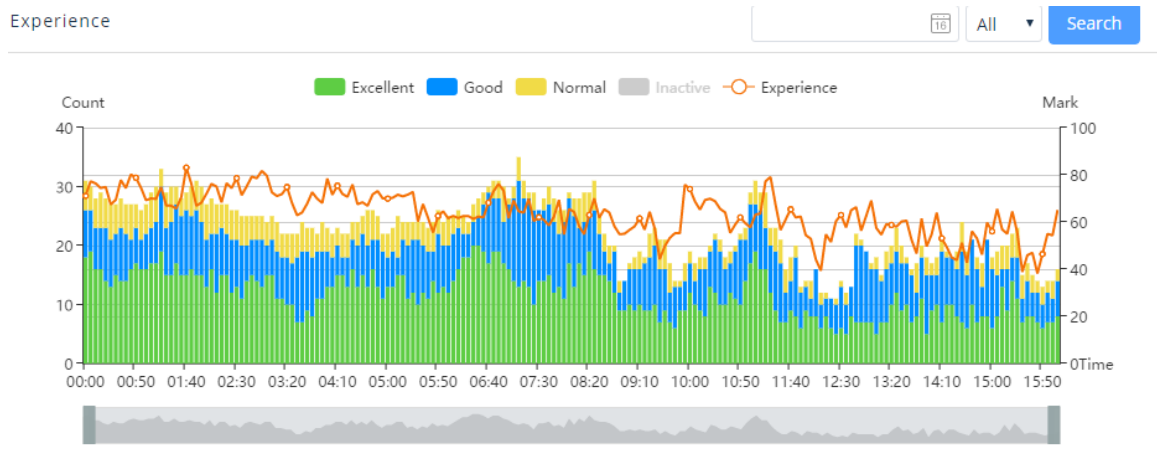
Just by scanning through the alert/log details and notifications, you can quickly master if the whole system is operating normally.



### 3.3.2 Master Real-time Online User Experience

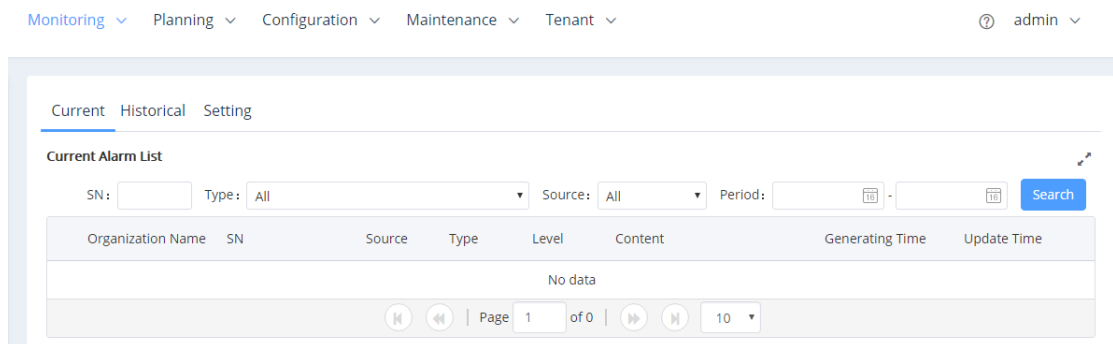
Analyze operating status of the system from the end user perspective. The MACC also enables you to find out the user experience at each hotspot, providing details of signal quality during various time slots and overall experience indicators.





### 3.3.3 Operating Status / Offline Alerts and Other Warnings

The MACC shows the current alert messages in a list. Trace the cause of each alert with ease based on warning level, source, content and time. You can also filter the alerts in terms of serial number, type of warning, alert source and time range.



Alert Setup: The MACC offers a wide range of alerts, you can enable only those you need and receive notifications of key alerts anytime, anywhere via WeChat.

Current Historical Setting

Alarm Settings List

Type	Status	Pushing by wechat	Update Time
1 Device goes offline	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2016-06-15 20:17:42
2 Device goes online and offline continually	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2016-06-20 10:58:43
3 STUN changes continually	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2016-06-20 10:58:43
4 Channel utilization	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2016-06-20 10:58:43

### 3.3.4 Diversified Data Reports

The MACC can generate data reports of various systems. For example, you can export a report on accumulated daily user statistics or daily user traffic details. By exporting all or filtering data you need, you can easily create a report of your own for periodic work summary.

Search

Download

1.Filter Condition

Type: 设备

Data Source: 设备射频信息

2.Search Criteria

射频类型

:

=

2.4G

Add

Search

Reset

3.Search Result

Export Report

频率带宽(MHZ)	信道	功率(%)	射频类型	设备序列号	信道利用率(%)
20	1	60	1	G1JDA7K03204C	29
20	6	60	1	G1JDA7K035391	22
20	11	60	1	G1JDA7K035020	45
20	11	60	1	G1JDA7K03425A	37
20	6	60	1	G1JDA7K033795	18
20	11	60	1	G1JDA7K032554	23

## 3.4 Cloud Operation and Maintenance

### 3.4.1 Management with Ease

The MACC platform supports multiple tenants. Each can manage several levels of sub-accounts. Various degrees of management and viewing privileges can hence be granted to different users, enhancing cloud control usability.

Monitoring ▾ Planning ▾ Configuration ▾ Maintenance ▾ Tenant ▾ admin ▾

### Accounts List

+ Add Username, User Name, IV Search

Username	Role	Group	User Name	Expiration	Mobile	Email	Action
test123456	User	99999	test123456	2999-01-01 08:00			

Group : 99999 \*

Username : test123456 \*

Password : \*\*\*\*\* \*

Language : English ▾

User : test123456

Expiration : 2999-01-01 ⑩ ①

Mobile :

Email :

Admin : ☐ ①

Authority (Select Template) Read Write

Dashboard	<input type="checkbox"/>	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	<input type="checkbox"/>
Organizations	<input type="checkbox"/>	<input type="checkbox"/>
Devices	<input type="checkbox"/>	<input type="checkbox"/>
Clients	<input type="checkbox"/>	<input type="checkbox"/>
SIMs	<input type="checkbox"/>	<input type="checkbox"/>
Report	<input type="checkbox"/>	<input type="checkbox"/>
Warn	<input type="checkbox"/>	<input type="checkbox"/>
Planning	<input type="checkbox"/>	<input type="checkbox"/>
Locations	<input type="checkbox"/>	<input type="checkbox"/>

Save Cancel

### 3.4.2 Centralized Upgrade Control


With MACC, you can easily manage hardware version and upgrade devices in batch. Select devices that need to be upgraded, click the “Upgrade” button and that’s it. You can also observe the whole executing process and read device logs for upgrade history in full details.

MACC Dashboard ▾ Monitoring ▾ Planning ▾ Configuration ▾ Maintenance ▾ bydemo ▾

RD\_INTL\_Center

- HK
- HKOffice
- MY
- FZ

Target Version top 5



MA\_3.0(2)Release...

Version List

Version	AP
MA_3.0(2)Release(03170923)	1

Page 1 of 1 View 1 - 1 of 1

Devices List

① Upgrade Selected ② Upgrade All Software Version SN Description Device Status Search

Status	Group	Location	SN	Model	Software Version	Description
① Offline	HK/HKOffice		G1DB25018295	RG-AAA1220	MA_3.0(2)Release(03170923)	

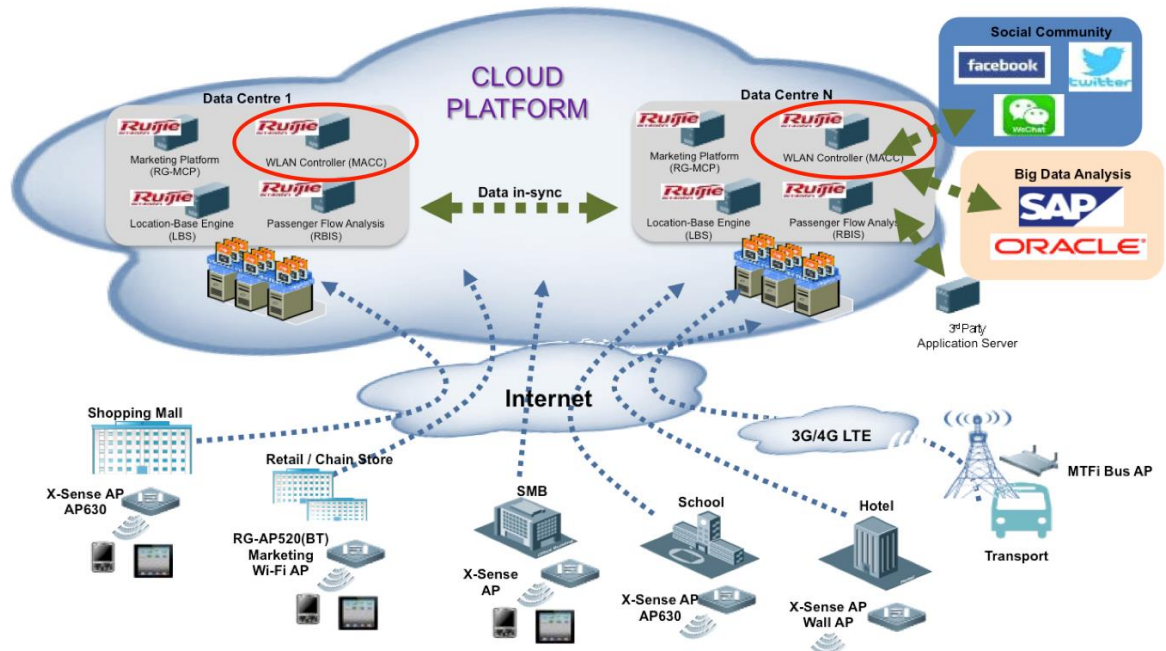
Page 1 of 1 View 1 - 1 of 1

## 4 Technical Specifications

Specifications	Description
<b>MACC-INTL Hardware Platform</b>	
Processor	8-core, each core clocked at 2GHz or above
Memory	8G or above
Storage	1T or above
Network Interface Adapter	100M or above
<b>Software Platform</b>	
Operating System	CentOS 6.5, 6.6
Database	MySQL 5.5
<b>Basic Component</b>	
Information Integration	Support overview of device data (including total no. of devices, online devices, online users)
Deployment Planning	Support auto RF planning for all APs on cloud (including auto channel and power planning)
Device Configuration	Support centralized AP configuration (including radio, SSID, authentication, etc.)
	Support unified management and configuration of gateway device
Device Control	Support real-time status monitoring of all APs (basic AP info: product model, serial no., MAC address, hardware model; online status; online/offline records; IP address; associated endpoint status)
	Support real-time status monitoring of all users (user MAC, IP, SSID, associated bands, online duration, traffic usage, online/offline records, user scheduling latency, packet drop rate, RSSI, endpoint manufacturer and model, etc.)
	Support real-time RF monitoring (channel utilization of all APs, peripheral RF signal scanning)
Roaming	Support L2 roaming under the cloud architecture (SSID under Open, WPA/WPA2-PSK/web authentication mode supports L2 roaming)
	Support L3 roaming under the cloud architecture (SSID under Open, WPA/WPA2-PSK/web authentication mode supports L3 roaming)

Authentication	Support China Mobile portal 2.0 authentication and cloud AC as NAS (MACC acts as NAS and directly collaborates with RADIUS and portal servers for user portal redirection and granting access on AP)
	Support WeChat Wi-Fi Connect 3.x integration with MCP/WMC authentication
	Support standard WiFiDog integration with third-party authentication server
	Support and provide RESTful API integration with third-party authentication server
Probe	Support AP probe for data collection (info collection and basic statistics of unassociated STAs around the AP)
Alert	Offline warning
	Performance warning
Privilege Management	Hierarchical privilege (accounts of different privilege levels can only check/view the respective devices)
	Management privilege (monitoring account: support checking only but not configuration; management account: support both checking and configuration)
<b>In-Car Component</b>	
Property Management	Automatically associate device and SIM; Support grouping management
Traffic Management	Monitor and manage 3G/4G signal strength, traffic alert and trend
GPS Management	Support GPS trajectory

## 5 Typical Applications



Cloud Marketing Wi-Fi Solution Diagram

The Mobile Access Cloud Center (MACC) can be deployed as the Cloud Marketing Wi-Fi Solution component and integrate with the Cloud Marketing Platform (MCP), Location-Based Engine (LBS), Passenger Flow Analysis (RBIS) and a wide variety of APs to form the overall Cloud Marketing Wi-Fi Solution.

The Cloud Marketing Wi-Fi Solution supports wide AP options for various scenarios. The AP520 (BT) Marketing Wi-Fi AP can be deployed to provide Wi-Fi for chain stores, while the X-Sense APs can be deployed in shopping malls, small and medium-sized enterprises, schools and hotels. The MTFi Bus AP can be deployed in transportation to provide Wi-Fi via the 3G/4G LTE network.

The Cloud Marketing Wi-Fi Solution supports 3rd party application server and provides API for partner customization. Multi-tenant management is also supported so that users can share access to the cloud platform with specific privileges.

## 6 Ordering Information

Model	Description
MACC-INTL-Base	Mobile Access Cloud Center (MACC) software, providing cloud-based management for registered devices, included: 10 registered device license and 1-year Software Support Service (i.e. software patches and maintenance support)
License & Service	
MACC-INTL-MTFI	MACC License for MTFI device (Bus Wi-Fi solution)
MACC-INTL-LIC-100	MACC License for 100 registered devices
MACC-INTL-LIC-500	MACC License for 500 registered devices
MACC-INTL-LIC-1K	MACC License for 1K registered devices
MACC-INTL-LIC-5K	MACC License for 5K registered devices
MACC-INTL-LIC-10K	MACC License for 10K registered devices
MACC-INTL-CDS	MACC Customization Development Service, charging based on workload (man-day)
MACC-INTL-SSS	MACC Software Support Service for 1 year, including software patches and maintenance support
MACC-INTL-CLUSTER-10K	MACC Cluster Implementation Service, applicable for cluster deployment of less than 10K registered devices
MACC-INTL-CLUSTER-50K	MACC Cluster Implementation Service, applicable for cluster deployment of 10K-50K registered devices
MACC-INTL-CLUSTER-10	MACC Cluster Implementation Service, applicable for cluster

0K	deployment of 50K-100K registered devices
MACC-INTL-CLUSTER-10 0K+	MACC Cluster Implementation Service, applicable for cluster deployment of more than 100K registered devices



## 7 More Information

For more information about the MACC-INTL Mobile Access Cloud Center, please visit or contact your local sales representative.