RG-MACC S.A.M.

Ruijie RG-MACC-SAM

(Security x Accounting x Marketing) Datasheet

RG-MACC-SAM (Security x Accounting x Marketing) is a single platform that provides AAA and captive portal service. It enables the clients to offer their guests public Wi-Fi and network access. Using a customizable splash portal, powerful proximity marketing, advertising, and analytic applications, they can provide an engaging Wi-Fi and network experience. RG-MACC-SAM is the next-generation AAA system with billing and identity management in mind. Highly capable to be deployed in a broadband service network wired for high-speed access such as hotels, airports, apartment buildings, campuses, etc.

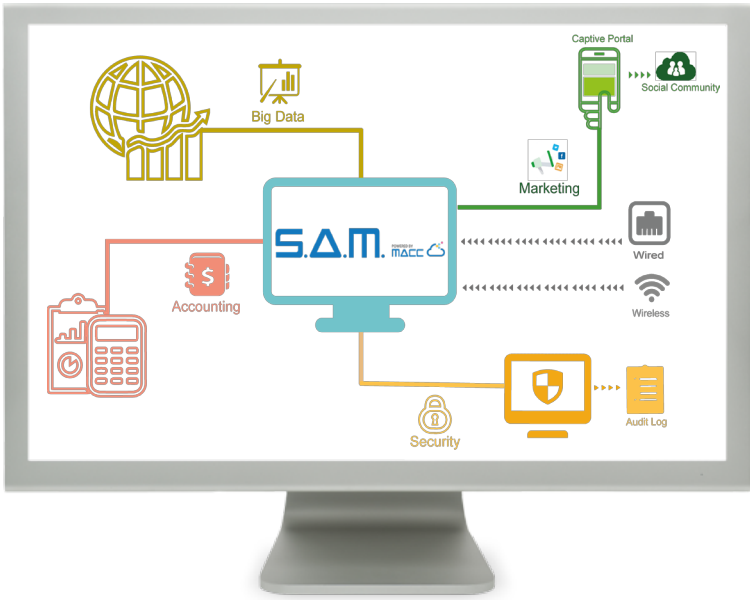

Figure 1: RG-MACC-SAM Solution Components

Figure 2: RG-MACC-SAM's Features at a Glance

FEATURE HIGHLIGHTS

Security Module

- Support Policy Management (i.e. flexible “Zone” definition)
- Support 3rd Party Data Integration

Accounting Module

- Support Flexible Billing Features (by time, data usage, speed)
- Support Voucher/QR Code Login
- Support Advanced Report

Marketing Module

User Analytics

- Support Visitors Analytics
- Support Social Analytics

Marketing Campaign

- Support Ads Portal: Tenants can edit their advertisements easily with Designer Ads Maker in the RG-MACC-SAM
- Campaign Management Engine: Ads and notification can be generated to customers based on connection status

Social Marketing

- Support a Wide Range of Social Media Authentication (i.e. Facebook, Instagram, Twitter, etc.) with Social Analytics Engine

RG-MACC Overview

The Ruijie RG-MACC (Managed @ Cloud Center) is a revolutionary cloud management platform which supports unified management and configuration of APs, switches and gateway devices[1], as well as value-added marketing features, site survey, etc. The RG-MACC is designed for education, retail chain stores, shopping malls, hotels, transportation, small and medium-sized enterprises, network operators and settings alike. The RG-MACC is consisted of various feature modules, such as management, marketing and AAA (authentication, authorization and accounting), site survey planner, diagnostic tools, etc. The platform significantly reduces the total cost of investment while ensuring high usability of the RG-MACC.

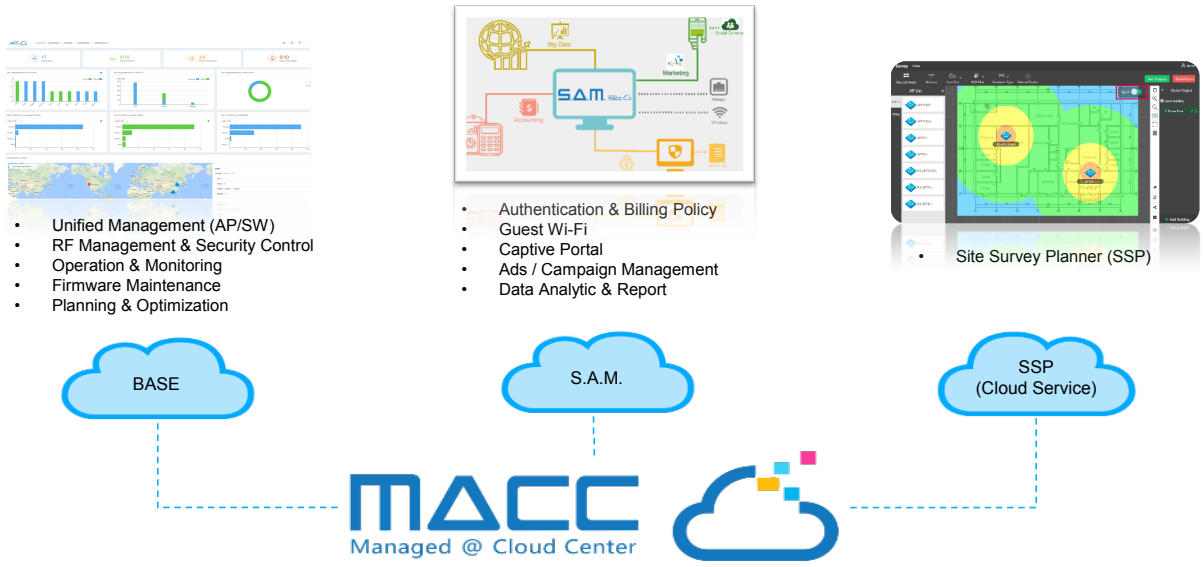

Figure 3: RG-MACC Cloud Solution Components

Security Module Features

Policy Management

RG-MACC-SAM enables you to provide Wi-Fi access to your guests or customers with an uncomplicated, workflow-based policy management portal which can be used to establish policy-based access control for all users and all devices. The policy engine can recognize different users or devices and then deploy the proper policy to certain “Zone”. “Zone” enables you to define dynamic area into different logical groups. A “Zone” is created by grouping of NAS ID, IP Address, VLAN and Wi-Fi SSID. “Zone” allows you to manage your network or integrate RG-MACC-SAM platform into your deployment easily.

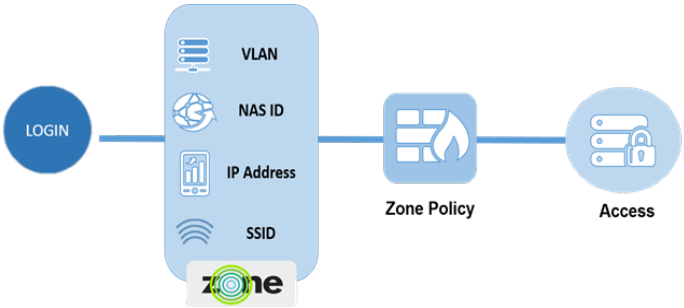

Figure 4: Policy Management Portal

Note:

[1] Future release support

3rd Party Data Integration

The RG-MACC-SAM empowers you the ability to unify and integrate with external 3rd party identity source and data, this includes Microsoft Active directory, LDAP, Radius, Social network, 3rd party database server and other network protocol. With this integration module, you are able to deploy RG-MACC-SAM solution into your organization network at ease.

Accounting Module Features

Voucher/QR Code Login

RG-MACC-SAM empowers you to offer free or pay-per-use services in recurring or one-time option, you can set time-based policies or provide vouchers through PINs. These vouchers are 1 time account that is valid till the voucher expiry due date or exhausted of credit minutes. With RG-MACC-SAM, you can complete the general configuration for the voucher behavior by yourself easily.

Figure 5: Voucher/QR Code Login

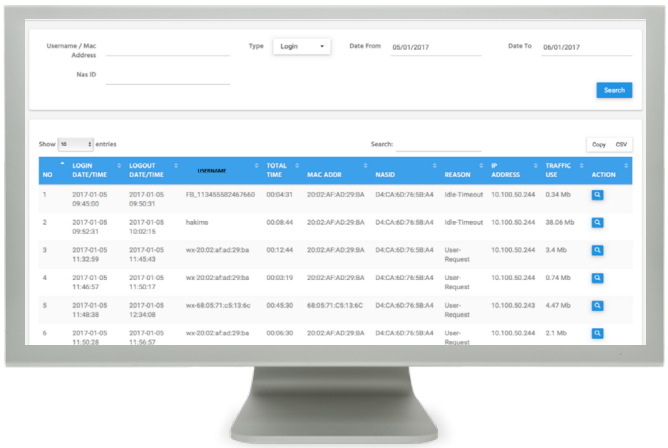

Figure 6: User Login History Report

Reporting

To help you better analyze and segment your audience, the RG-MACC-SAM analytics platform provides you a plenty of real-time user demographics data, such as age, gender and location, length of internet use, total amount of users and data usage, all these information are just some of the statistics you can collect from RG-MACC-SAM. Moreover, RG-MACC-SAM can assist you to better manage your Wi-Fi Service as you can view the login transaction of the users and its associated data such as MAC Address, brand and devices of the users, time and volume usage.

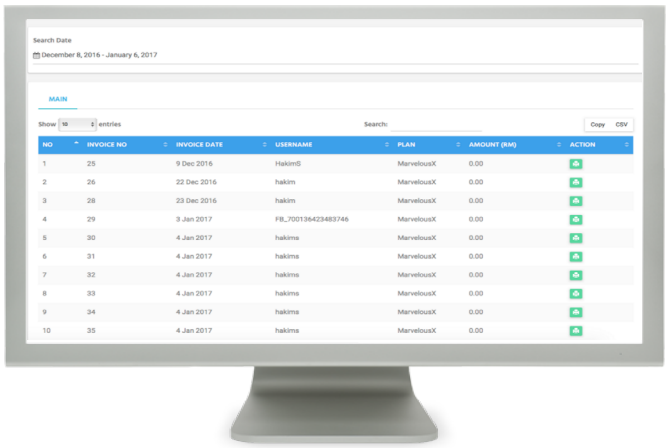

Figure 7: Financial Report

Marketing Module Features

Flexible Campaign Management Engine

RG-MACC-SAM is a unique Wi-Fi marketing application that helps you gain new users, engage your users and monetize your network. The Campaign Engine in the RG-MACC-SAM is the module that lets you controlling and managing all the campaigns for your network. Ads and notifications can be generated to customers based on connection status. Moreover, RG-MACC-SAM campaign provides the capability to send incentive SMS/email during connection/disconnection.

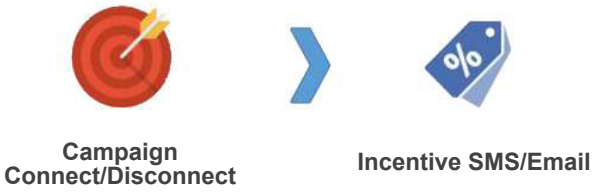

Figure 8: Campaign Use Case

Login Journey

RG-MACC-SAM is a powerful tools which allows you to set the end user experience during the on-boarding to network through a Graphic User Interface instead of using any programming technique or knowledge. Plus, you can control the whole login flow from Pre-Login Page, Login Page to Post-Login Page in one single interface.

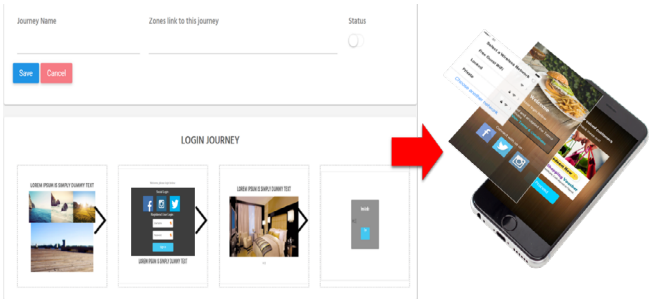

Figure 10: Login Journey

Designer Ads Maker

The RG-MACC-SAM portal page is highly customizable, it allows you to build an advertising page that fits your needs with various elements like images (multiple static images or rolling pictures), texts, videos, login button, hotline button, location map, App download, survey, etc. by using the simple Drag-n-Drop feature in the Designer Ads Maker. The platform automatically sends an advertising page with size that best fits to the end device. There are more links to other platforms and systems such as online store and lucky draw. The editing page is intuitive and user-friendly. Staff member can assemble a presentable advertising page in 5 minutes.

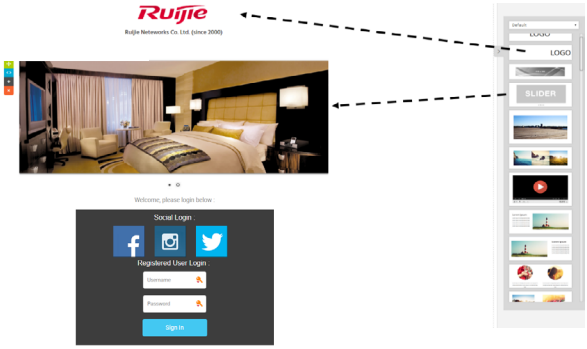

Figure 9: Advertising Page Customization

Social Marketing

RG-MACC-SAM can support a variety of Social Authentication methods[2] such as Twitter, Instagram and Facebook as another mean for users to gain access to a free Wi-Fi. Moreover, RG-MACC-SAM can also support Social Analytics Engine, the demographic data[3] and social interest of customers can be collected when they access to your Wi-Fi portal.

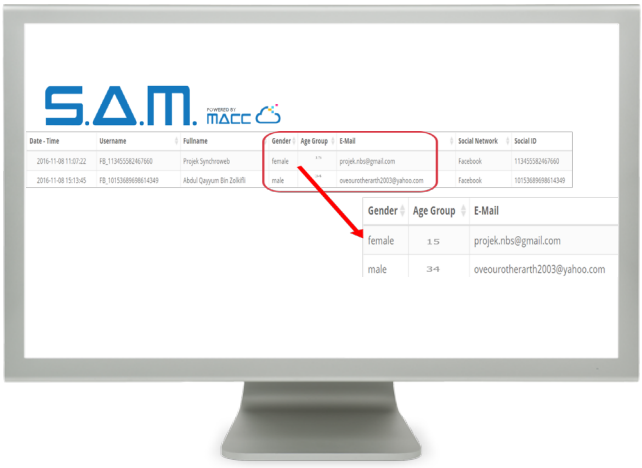

Figure 11: Gathering of Demographic Information

Note:

[2] As of Sep2017, MACC-SAM current release can support Twitter, Instagram and Facebook

[3] Demographic data collected is varies for various social platform

Precision Marketing

The RG-MACC-SAM can customize different advertising push strategies for different time and locations to engage your target user directly based on their behavior and user grouping, no more mass campaign and hope relevant user will be engaged by your campaign. Different ads can be pushed to different shops and floors in any time period and even according to the type of devices. Most importantly, the RG-MACC-SAM can customize different ads for different SSIDs/VLANs/Locations (by AP). In order to enhance the accuracy of the Ads pushing, you can embed your ads with mobile Apps supported by BLE iBeacon such as WeChat, your ads will be pushed to your customers' mobile once they open the "WeChat Shake" function.[4]

Figure 12: Precise and Effective Location-based Marketing

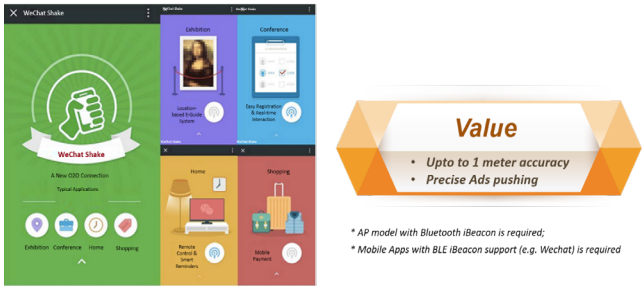

Figure 13: iBeacon Application – WeChat Shake

Role-based Management System

The RG-MACC-SAM offers Role-based Management for different accounts. The account users can only view and manage the data and devices of their own accounts and their subordinate accounts. Users cannot view accounts of the same or higher levels to avoid unauthorized access.

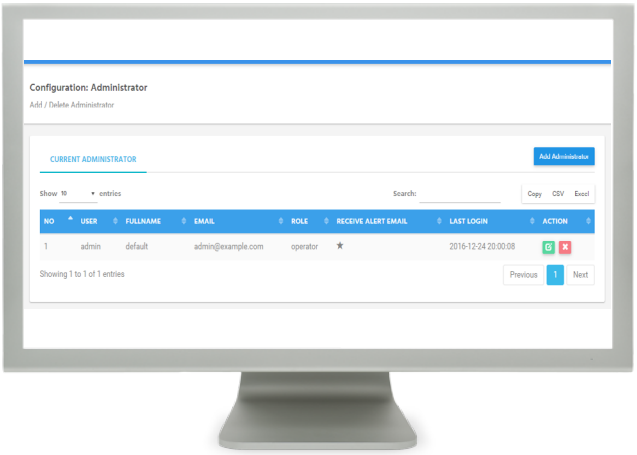

Figure 14: Role-based Management for Different Accounts

Note:

[4] AP with Bluetooth iBeacon is required.

Application Scenarios

Education

• Unified Management:

- Empowered by RG-MACC Solution Framework and RG-MACC-SAM feature module, the least IT expert will be required as it can perform several functions including wireless controller, AAA (Authentication, Authorization and Accounting), portal server (customized login page) and marketing Wi-Fi in one platform

• Unified Access Policy:

- RG-MACC-SAM can control the network access policy such as granting different speed and data limit for the Wi-Fi access for various zone or SSIDs

• Customized Portal / Bulletin Board:

- RG-MACC-SAM can offer different landing pages or bulletin messages based on different SSIDs / VLANs / Locations by Zone policy

Retail Chain & Mall

• Flexible Voucher/QR Code Login:

- Customers can obtain Internet access right or some special coupon when they scan the voucher or QR code placed inside the store

• Easy Ads Maker:

- Tenants can edit their advertisements easily with Designer Ads Maker in the RG-MACC-SAM

• Flexible Campaign Management Engine:

- Ads and offline notification (SMS and Email) can be generated to customers based on connection status

• New Advertisement Method:

- Preventing the interference from other Access Points, iBeacon can be used as a tool for advertisement promotion with RG-MACC-SAM platform

Hotel

• Smart Authentication:

- Seamless End User Experience: When a user is first authenticated, RG-MACC-SAM will automatically save the user name, password, and MAC binding relationship. For subsequent access of the user, the HTTP request of the user will automatically trigger the background authentication, making access seamless and invisible to the end user.

• Flexibility:

- Billing Features: With RG-MACC-SAM, tenants can charge their customers with internet access based on bandwidth, data usage and speed

- Voucher/QR Code Login: Customers can access to the Internet and even finish check-in procedure by just scanning the voucher or QR code

• Social Marketing:

- Social Authentication: RG-MACC-SAM can support a variety of Social Authentication methods such as Facebook, Instagram and Twitter as another mean for users to gain access to a free Wi-Fi

- Social Analytics Engine: The demographic data of customers can be collected when they access to tenants' Wi-Fi portal

Technical Specifications

Feature List

	RG-MACC-SAM
Deployment Mode:	
(i) Single-Tenant (suitable for local premises deployment)	✓
(ii) Multi-Tenant (suitable for private/ cloud deployment)	✓
Authentication:	
(i) Radius Server	✓
(ii) Radius Proxy	✓
(iii) MAC Authentication	✓
(iv) Captive Portal (Web Authentication)	✓
(v) Email/Public Signup	✓
(vi) Active Directory (For local premises deployment)	✓
(vii) LDAP	✓
(viii) Voucher (QR code)	✓
(ix) SMS gateway integration (Twillio)	✓
Social Media Login:	
(i) Integration with Facebook, Twitter, Instagram	✓
Access Control:	
(i) Quota Limit	✓
(ii) Speed Limit	✓
(iii) Time Limit	✓
(iv) Concurrency Devices Control	✓
(v) Auto Reset Profile	✓
(vi) Bulk Users Manager	✓
(vii) Automatic Suspension & Purge of Expired Users	✓
Captive Portal Engine:	
(i) Page Maker	✓
(ii) Media Library	✓
(iii) Login Journey Editor	✓
(iv) T&C Editor	✓
(v) Sign Up Page Data Field	✓
(vi) Error Notification	✓
(vii) Auto-adjustable for Various Screen Resolution	✓
Marketing Campaign:	
(i) Support Ads Portal & Campaign Management	✓
(ii) Coupon Engine	✓
(iii) Survey Engine	✓
Policy:	
(i) Zone Restriction (by IP, VLAN, SSID, NAS ID combination)	✓
(ii) Mac Security	✓
(iii) Mac Auto Register	✓
Finance:	
(i) Voucher Report	✓
(ii) Invoices	✓
Analytics Reports:	
(i) Account Summary	✓
(ii) Login Report	✓
(iii) Bandwidth Report	✓

Supported Models

Supporting Ruijie Hardware Models

Product Type	Product Series	Hardware Model
AP (RGOS AP)	AP120 Series	AP120-W, AP120-W(V2)
	AP130 Series	AP130(W2), AP130(L), AP130-W
	AP500 Series	AP520-I(G2), AP520(W2), AP520(BT), AP520(DA), AP530-I V2
	AP700 Series	AP740-I, AP720-I, AP740-I(C)
	AP630 Series	AP630(IDA) , AP630(IODA), AP630(CD)
	MTFI Series	RG-MTFI-M520(IZEAA), RG-MTFI-M520(ILEAA)

System Requirements

RG-MACC-BASE System Requirements

Scale	Recommended System Specifications				
Number of APs	CPU	RAM	HDD	Internet Bandwidth (minimum)	Number of Servers
< 1,000	4	8 GB	256 GB	1MB	1
1,000 to 4,000	8	16 GB	512 GB	2MB	1
4,000 to 10,000	8	16 GB	512 GB	4MB	2
Above 10,000	If cluster solution is required, please contact Ruijie local sales representative for details				

RG-MACC-SAM System Requirements

Scale	Recommended System Specifications				
Number of APs	CPU	RAM	HDD	Internet Bandwidth (minimum)	Concurrent Clients
< 500	1	16 GB	500 GB	1MB	15,000
500 to 1,000	1	32 GB	800 GB	2MB	30,000
1,000 to 2,000	1	32 GB	1 TB	4MB	60,000
2,000 to 3,000	2	32 GB	1.5 TB	6MB	90,000
3,000 to 5,000	4	64 GB	3 TB	10MB	150,000
Above 5,000	If cluster solution is required, please contact Ruijie local sales representative for details				

Ordering Information

Model	Description
RG-MACC-BASE	Ruijie MACC Solution Framework Base Module - providing cloud-based device planning, monitoring, troubleshooting and reporting, multi-tenant edition for Managed Service Provider (MSP) (including: 3-year software support service with software upgrade, patches and online technical support service)
RG-MACC-BASE-LIC-25	RG-MACC-BASE Licenses for 25 registered devices
RG-MACC-BASE-LIC-50	RG-MACC-BASE Licenses for 50 registered devices
RG-MACC-BASE-LIC-100	RG-MACC-BASE Licenses for 100 registered devices
RG-MACC-BASE-LIC-500	RG-MACC-BASE Licenses for 500 registered devices
RG-MACC-BASE-LIC-1K	RG-MACC-BASE Licenses for 1K registered devices
RG-MACC-BASE-LIC-5K	RG-MACC-BASE Licenses for 5K registered devices

Model	Description
RG-MACC-BASE-LIC-10K	RG-MACC-BASE Licenses for 10K registered devices
RG-MACC-SAM-LIC-25	Ruijie MACC Security x Accounting x Marketing (S.A.M.) License for multi-tenant edition. License for 25 registered devices
RG-MACC-SAM-LIC-100	Ruijie MACC Security x Accounting x Marketing (S.A.M.) License for multi-tenant edition. License for 100 registered devices
RG-MACC-SAM-LIC-500	Ruijie MACC Security x Accounting x Marketing (S.A.M.) License for multi-tenant edition. License for 500 registered devices
RG-MACC-SAM-LIC-1K	Ruijie MACC Security x Accounting x Marketing (S.A.M.) License for multi-tenant edition. License for 1000 registered devices
RG-MACC-SAM-LIC-5K	Ruijie MACC Security x Accounting x Marketing (S.A.M.) License for multi-tenant edition. License for 5000 registered devices
RG-MACC-SSS-Service	RG-MACC Annual Software Support Service (Including software upgrade, patches and online technical support service)
RG-MACC-INT-Service	RG-MACC 3rd party integration & development service
RG-MACC-Cluster-Service-10K	RG-MACC Cluster Implementation Service, applicable for cluster deployment of less than 10K registered devices
RG-MACC-Cluster-Service-50K	RG-MACC Cluster Implementation Service, applicable for cluster deployment of 10K-50K registered devices
RG-MACC-Cluster-Service-100K	RG-MACC Cluster Implementation Service, applicable for cluster deployment of 50K-100K registered devices
RG-MACC-Cluster-Service-100K+	RG-MACC Cluster Implementation Service, applicable for cluster deployment of more than 100K registered devices

Innovation · Simplicity · Experience

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