Synway ®

DCMS

Device Cloud Management System

Help Manual

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1 Introduction

The device cloud management system (hereinafter referred to as 'DCMS') is a unified, integrated management platform that is developed by Synway to manage all the gateways remotely. It realizes the centralized monitoring and management on the Synway gateways.

DCMS includes the following 9 parts:

Home

Device Monitor

Device Maintain

Statistics

Syslog

User Manage

System Warning

Node Manage

2 Home

Home Page displays the real time information of all devices, including: Port Status, Details, Device Name, Device Status, Load, Alarm Info and so on.

Port Status: See the pie charts on the page to find the status of trunks or FXO ports. Click on a color of a chart, and you will see the detailed infomation of all trunks or FXO ports in the corresponding status on the bottom right corner.

Details: Click the icon before Serial No. to go to the real time information page.

Load: Includes Device Load and Port Load, representing the real time pressure of the device and the channel usage of each port.

Warning Information: Click a histogram under Warning Information, and you will see the detailed alarm information on the bottom right corner.

3 Device Monitor

DCMS owns a powerful capability to monitor the terminal device. By using it, you can monitor runtime status, software version and call statistics for all terminal gateways, which helps save the cost on network management and terminal maintenance.

You can locate a device quickly by setting some filtering conditions, such as Series No., Device Type, Device Name, Device Status and Software Version.

Serial No.	Device Type	Device Name	Status	Software Version
Inquire	All	All	All	All

You also can find a device via the node tree on the left of the page. Click [icon] to see the detailed information.

Real-time Device Information: Displays the information about the device, network card, port, SIP, SIP server, warning, etc. Basic Information includes Device Name, Series No., Software Version, Working Status, Channel, CPU and memory usage, etc; Network Card information includes MAC, IP Address, DNS, etc.; Port information includes Port Type, Working Status and so on; SIP, SIP Server contain corresponding addresses, ports, etc.; Warning Information lists all the warning information sent out from the device, which includes warning level, starting time, warning content and warning port.

Click the icon [icon], the real time devic information will be displayed; or click "Real-time Device Information" in the secondary navigation bar to go to the Real-time Device Information page, and then click a device under the node tree to go to the Real-time Device Information page for this device.

Real-time Device Information

Basic Information
Device Name: **SMG3016**
Serial No.: 000002942
Software Version: 1.6.2_2015112616
Kernel: Linux MV78460 3.2.46 #361 SMP Thu Sep 24 11:01:53 CST 2015
Firmware: 18
U-boot: 2.1.5_201509
Wan Address: **201.123.111.11**
Working Status: **Enabled**
Channels -> Idle: **14** In Use: **466**
CPU Basic Frequency: 1196MHZ Usage: **12%**
Memory Size: 2071392KB Usage: **35%**
FLASH Size: 215040KB Usage: **29%**
Working Time: **4 d 3 h 57 m**
On-line Time: **0 d 4 h 18 m**
Load: **97%**

LAN 1 Enabled
MAC: **80:7B:85:10:0D:D8**
IP Address: **201.123.111.11**
Subnet Mask: 255.255.255.0
DNS: 0.0.0.0
Speed and Duplex Mode: Automatic Detection
Total Receive Packages: **2147483647**
Receive Error Packages: **1**
Receive Drop Packages: **0**
Total Transmit Packages: **2147483647**
Transmit Error Packages: **0**
Transmit Drop Packages: **0**

LAN 2 Stopped
MAC: **80:7B:85:10:0D:D9**
IP Address: **192.168.0.101**
Subnet Mask: 255.255.255.0
DNS: 0.0.0.0
Speed and Duplex Mode: Automatic Detection
Total Receive Packages: **0**
Receive Error Packages: **0**
Receive Drop Packages: **0**
Total Transmit Packages: **0**
Transmit Error Packages: **0**
Transmit Drop Packages: **0**

Port Information

| Port1:E1 ISDN Available Load: 100% | Port2:E1 ISDN Available Load: 100% | Port3:E1 ISDN Available Load: 100% | Port4:E1 ISDN Available Load: 100% | Port5:E1 ISDN Available Load: 100% | Port6:E1 ISDN Available Load: 100% | Port7:E1 ISDN Available Load: 96% | Port8:E1 ISDN Available Load: 100% | Port9:E1 ISDN Available Load: 100% |
| Port10:E1 ISDN Available Load: 100% | Port11:E1 ISDN Available Load: 93% | Port12:E1 ISDN Available Load: 100% | Port13:E1 ISDN Available Load: 100% | Port14:E1 ISDN Available Load: 100% | Port15:E1 ISDN Available Load: 73% | Port16:E1 ISDN Available Load: 90% | | |

SIP Trunk

SIP Trunk0:
Remote Address:
201.123.111.13
Remote Port: **5060**
Unregistered
Channels:
  In Use: 450
  Total: 1024

None

Device Pictures: Click the icon [icon] on the device monitor page, and the outside view drawing for the device will appear. You can see the front view and the rear view by clicking the arrow on the bottom left or right corner.

Call Statistics: Click the icon [icon] on the device monitor page, and the call statistics information during the latest 24 hours will all appear. Note that the content displayed here are the same as that on the statistics page.

4 Device Maintain

Via DCMS, you can check whether the terminal device is online, configure the parameters for the terminal device, restart the device remotely as well as reset the device to the factory setting.

Symbol Explanation:

: New Configuration. Click this icon to go into the device configuration page. You can modify the old one or create a new configuration here and save it into DCMS.

: Configuration Backup. Click this icon to backup the configuration file from the terminal gateway to DCMS.

: Configuration Storage. It is used to save and manage the new and backup configuration files.

: Restore. Used to restore the configurations of the terminal device to what the DCMS platform saves.

: Device Reboot. Used to restart the terminal device remotely.

: Reset. Reset the terminal device to the factory setting remotely (The configurations concerning IP and SNMP will be reserved during the resetting).

: Lock. Click it to go into the lock interface to lock the gateway remotely. This icon also means the current terminal device is unlocked.

: Unlock. Click it to go into the unlock interface to unlock the gateway remotely. This icon also means the current terminal device is locked.

Upgrade Strategy:

DCMS helps you to realize the remote maintenance management. You can select a single gateway or a type of gateways under a node to do upgrade remotely.

5 Statistics

Count the amount and time length of the calls during the latest 24 hours and display the statistics. You can check the statistics for all devices or the devices under a node or a single device managed by DCMS.

6 Syslog

The operating and system alarming logs of the terminal device are recorded on this page.

On this interface, you can search logs according to such conditions as Log Generated Time, Log Level, Log Type, Series No., and keywords. What's more, Series No. and Keywords support fuzzy search, and all of them support result export.

| Time | - ⌄ | Log Level | all ⌄ | Log Type | all ⌄ | Serial No. | | Keywords | | Search | Export |

7 User Manage

User Manage:

This is mainly for the addition, deletion and modification on users. Also it allows the setting on access and administration authority.

Access Authority contains Device Monitor, Device Maintain, Statistics, Syslog, User Manage, System Warning and Node Manage.

You can set different access authorities for different users. A page can be seen only by the users who have the corresponding access authority.

Administration Authority means the authority of a user to manage nodes. If a user owns the authority to manage a node, he/she has the authority to manage all devices under this node and its subnode.

Personal Setting:

Used to set the related information of the current user. The Username is fixed and the configuration item 'Language of Send Warning' is only applicable to the way of sending warning to email box.

Modify Password:

Only the password of the current login user can be modified.

8 System Warning

Send Warning:

DCMS provides three modes Email, Wechat, SMS for warning sending. According to your configuration, the warning information can be sent to the designated email address, Wechat account and SMS platform.

To use the mode SMS, you are required to subscribe the SMS service to your telecoms operator, and then configure the corresponding items on the Send Warning page (see the figure below).

To use the mode Wechat, you are required to scan our QR code to pay attention to us, and then go into our official account to bind your username. Go to our official account, click Service=> Warning Subscribe, and do the operations following the prompt.

Note: DCMS follows the proximity principle to send the warning messages. That is, it will search

the device's father and upper nodes in turn to find a user who has the administration authority and will not send out the warning message until it find such a user. The Send Warning feature connecting with the user management and the node management effectively refines the management on each node. To a user who has the lowest administration authority, no one but him can receive the warning messages sent out from a device under the note where the user stays, which avoids the repeated sending of warning messages.

Warning Policy:

Set the warning level, filter cycle, warning threshold for the corresponding warning content. Note that the warning content is unchangable.

Warning Content Explanation:

Low Connection Rate: The amount of successful calls/the amount of total calls educes the connection rate. This warning will appear when the connection rate is lower than the set value.

High CPU Utilization: This warning will appear when the CPU usage of the terminal device is higher than the set value.

Registration Failed: This warning will appear when the SIP registration of the terminal device is failed.

High Memory Occupancy: This warning will appear when the memory usage of the terminal device is higher than the set value.

Network Disconnected: This warning will appear when the network of the current terminal device is disconnected.

SMGSvr Reboot Abnormal: This warning will appear when SMGSvr of the terminal device restarts abnormally.

Port Abnormal: For a digital gateway, it means the PCM is abnormal; for an analog gateway, it means the port module is abnormal or the FXO port is Off-line.

High Rate of Concurrent Call: This warning will appear when the amount of the channels in call connection is larger than the set value.

System Restart Abnormally: This warning will appear when the system of the terminal device restarts abnormally.

Warning Cycle: The warning information will be displayed and sent out when its duration is detected longer than the set value.

9 Node Manage

Node Manage:

It is used to add, delete and modify the node information, as well as to modify the device grouping.

Currently, the highest node level supported to create is level 5.

Device Grouping:

It is used to display the device and modify the node information of the device.

By default, the device will appear under the "ungrouped device" node once it is connected to DCMS. You can group it into a node you want.

10 Troubleshooting

1 Which browsers are supported by DCMS?

Currently, DCMS is only supported by Google and Firefox browsers. Pages may appear disordered if it is opened with other browsers.

2 How to solve the problem caused by browser cache?

Pages may appear disordered after an upgrade. That is because parts of the pages have been upgraded with DCMS, while the old version information is still saved in the browser cache, which generates a conflict. To solve such problem, we suggest you clear the browser cache and log in again.

3 Which gateways are supported by DCMS?

DCMS supports all of the gateways that can be connected to it. However, so far only the A-type analog gateways and the digital gateways from Synway can be connected to DCMS.

4 How to see if a gateway has been connected with DCMS? How to configure it?

First, you are required to upgrade the gateway to a version that supports the centralized management of DCMS. Then configure it correspondingly.

The configuration for the terminal gateway:

    (a) Go to *System Tool-> Centralized Manage*, see the figure below:

	Centralized Manage	
Operation Info		
Quick Config	Centralized Manage:	☑ Enable
VoIP	Company Name:	synway
Advanced	Gateway Description:	1212
Port	SNMP Version:	SNMP
Route	SNMP Version:	V2
Num Manipulate	SNMP Server Address:	201.123.115.236
System Tools	☑ Monitoring Port	161
Management	Community String:	public
Network	Working Status:	Connected, waiting for inquiry (77 times inquiry)
Upgrade		
Signaling Capture	Save Reset	
Call Log		
Operation Log		
Backup & Upload		
Factory Reset		
System Monitor		
Centralized Manage		
PING Test		
TRACERT Test		
Change Password		
Restart		

    (b) Click and enable the feature of Centralized Manage, input the relevant information.

Note: Company Name should be the same as that set in "Company Name" of DCMS; SNMP Server Address should be the address of DCMS; Monitoring Port is the monitoring port of SNMP, with the default value of 161; Community String is the verification code for the mutual connection of the device and DCMS.

5 How to get the software package which supports the connection of the device to DCMS?

Please contact our technicians to obtain the software package. Currently, only the A-type analog gateway and the digital gateway from Synway are supported.

6 How long will the information of a new gateway be displayed normally after it is connected to DCMS?

You need wait about 5 minutes.

7 Why the warning information fails to be received in time when the warning condition is satisfied?

There is some delay in sending the warning information.

8 The information of a removed gateway will be still remained in DCMS, and its status is off-line.

9 Please wait and don't leave the current page after you do some operations on the device maintain and control manage pages.

10 How to find the device that sends the warning information?

Go to the home page of DCMS, click the histogram representing the warning level under Warning Information. Then, a list of warning messages at the corresponding warning level will display on the bottom right corner. Click before the device to go into the real time information interface.

Appendix Technical/sales Support

Thank you for choosing Synway. Please contact us should you have any inquiry regarding our products. We shall do our best to help you.

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