Chapter 5 Access ACU through NMS

ACU has SNMP agent function. User can use NMS to do following operations:

Query the operation status and input/output signals of the device connected to ACU;

Set the operation parameters of the device connected to ACU;

Browse the active alarms.

When ACU generates alarms, SNMP agent can notify the preset NMS through TRAP automatically.

5.1 NMS supported by SNMP Agent

The SNMP agent of ACU supports SNMPv2c.

All the NMS that supports SNMPv2c can be used to access ACU. The NMS includes HP OpenView, IBM NetView, Novell ManageWise, SunNet Manager and so on.

5.2 MIB Installation

MIB Installation

The ACU MIB is located in the installation CD delivered together with ACU, and file name is acu-power.mib.

Use the MIB loading function of NMS to load the MIB database, refer to the corresponding NMS user manual for the detailed loading method.

Contents of MIB

This MIB is suitable for the firmware version 1.10 of ACU. The MIB will change with the upgrading of ACU firmware. The contents of MIB supported by ACU SNMP agent, and the OID are listed in Table 6-1. For the details, please refer to the file of acu-power.mib

Table 5-1: Contents of ACU MIB

ident Group	**Acu ident group**	
identManufacturer	The name of the equipment manufacturer	R
identModel	The manufacturers model designation of the power system	R
identControllerFirmwareVersion	The firmware (software) version of the controller	R
identName	The name of the power plant. This object should be set by the administrator.	R/W
System Group	**Acu system value group**	
systemStatus	Status of the complete plant (highest alarm). One of (1) unknown - status has not yet been defined (2) normal - there are no activated alarms (3) warning - OA, lowest level of 'abnormal' status (4) minor - A3 (5) major - MA (6) critical - CA, highest level of 'abnormal' status (7) unmanaged (8) restricted (9) testing (10) disabled	R
systemVoltage	System voltage, stored as mV	R
systemCurrent	System current, stored as mA	R
systemUsedCapacity	Used capacity, stored as % of the total capacity	R
psStatusCommunication	The status of communication with the Power System (1) unknown, (2) normal, (3)interrupt indicates some errors occurred between Power System and agent	

psStatusBatteryMode	The status of battery modes, (1) unknown (2)FloatCharging, (3)ShortTest, (4)BoostChargingForTest (5) ManualTesting, (6)PlanTesting, (7)ACFailTesting, (8)ACFail, (9)ManualBoostCharging, (10)AutoBoostCharging, (11)CyclicBoostCharging, (12)MasterBoostCharging, (13)MasterBatteryTesting	
SM series group	**Power system battery group**	
psSMACNumber	The number of SM AC module	R
psSMBATNumber	The number of SM BAT module	R
psSMIONumber	The number of SM IO module	R
psInput group	**Power system input group**	
psInputLineAVoltage	The AC line A voltage, stored as mV	R
psInputLineBVoltage	The AC line B voltage, stored as mV	R
psInputLineCVoltage	The AC line C voltage, stored as mV	R
psTemperature Group	**Power system temperature group**	
psTemperature1	The first route temperature, stored as 0.001 Celsius degree	R
psTemperature2	The second route temperature, stored as 0.001 Celsius degree	R
alarm trap Group	**Acu alarm trap Group**	
alarmLastTrapNo	The sequence number of last submitted alarm trap	R
alarmTrapTable (alarmTrapEntry)	Table holding information about the submitted alarm traps. alarmTrapEntry is the entry (conceptual row) in the alarmTrapTable	R
alarmTrapNo	The unique sequence number of this alarm trap	R
alarmTime	Date and time when event occured (local time), including timezone if supported by controller	R
alarmStatusChange	The type of alarm change. One of (1) activated (2) deactivated	R

alarmSeverity	The severity of the alarm. One of (3) warning - O1, lowest level of alarm severity (4) minor - A3 (5) major - A2 (6) critical - A1, highest level of alarm severity	R
alarmDescription	Free-text description of alarm	R
alarmType	Alarm type, i.e. an integer specifying the type of alarm	
Traps	**Alarm traps info**	
	The SNMP agent can send the active alarms to the specified NMSs and the user can define the lowest severity of the NMS accepted alarms.	

In table 5-1, R means OID is read-only (GET), and R/W means OID can be read and modified (GET/SET).

5.3 Access ACU through NMS

The following part introduces how to access ACU with HP OpenView as an example.

5.3.1 Apply Administrative Authority

In order to use NMS to manage the devices connected to ACU, the administrative authority needs to be applied for the NMS, that is, add the NMS information to the access list of SNMP agent.

Add NMS through Web browser

Refer to “4.4 System Menu” for the method of adding NMS.