Security Management System – TCP MODBUS Interface

Security Management System software generates notifications which indicate the state of various health parameters eg – 'disk failure', 'one or more cameras offline' etc.

These notifications can be exposed as TCP MODBUS interface for external TCP MODBUS masters to connect and to query the status.

A separate application 'SMS TCP MODBUS Interface' is available for the same. This document describes the configuration of the 'SMS TCP MODBUS Interface' application.

(A) Installation

'SMS TCP MODBUS Interface' application is not part of the Security Management System software installation. A separate installer is available for the same.

1. Please download the 'SMS TCP MODBUS Interface' application installer.
2. Copy the installer on the computer where Security Management System server software is installed
3. Execute the installer
4. Follow the installation wizard to complete the installation

Notes –

1. Please use same version of the 'SMS TCP MODBUS Interface' application, matching with the Security Management System server software.
2. If Security Management System server software is installed on multiple computers, 'SMS TCP MODBUS Interface' application needs to be installed on each of these computers. The configuration steps described in this document are required to be followed for 'SMS TCP MODBUS Interface' application installed on each of the computers.

(B) Execute 'SMS TCP MODBUS Interface' Application

After installation, the 'SMS TCP MODBUS Interface' application can be executed from any of the following shortcuts –

1. Desktop shortcut 'SMS TCP MODBUS Interface'
2. Programs menu shortcut 'SMS TCP MODBUS Interface -> SMS TCP MODBUS Interface'

(C) One Time Configuration

1. After first time execution, 'SMS TCP MODBUS Interface' is launched with default parameters
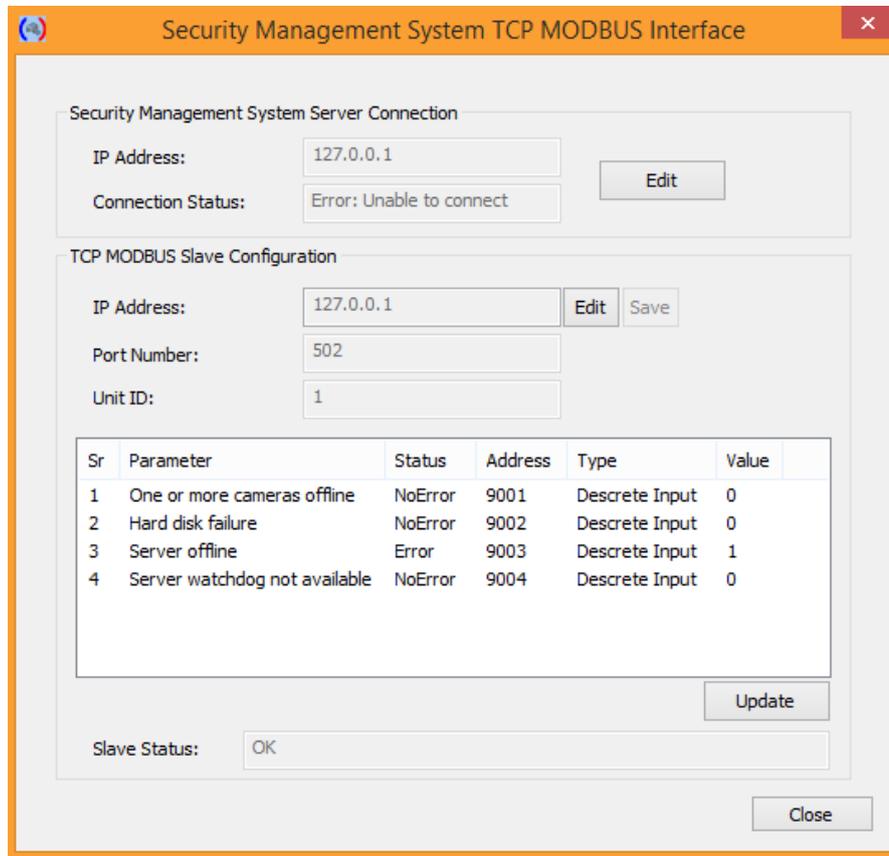
2. Please make sure that Security Management System server software is running on the target computer (where 'SMS TCP MODBUS Interface' is being configured right now)

3. Click on the 'Edit' button available under 'Security Management System Server Connection'. This will pop up the 'SMS Server Connection Parameters' dialog.
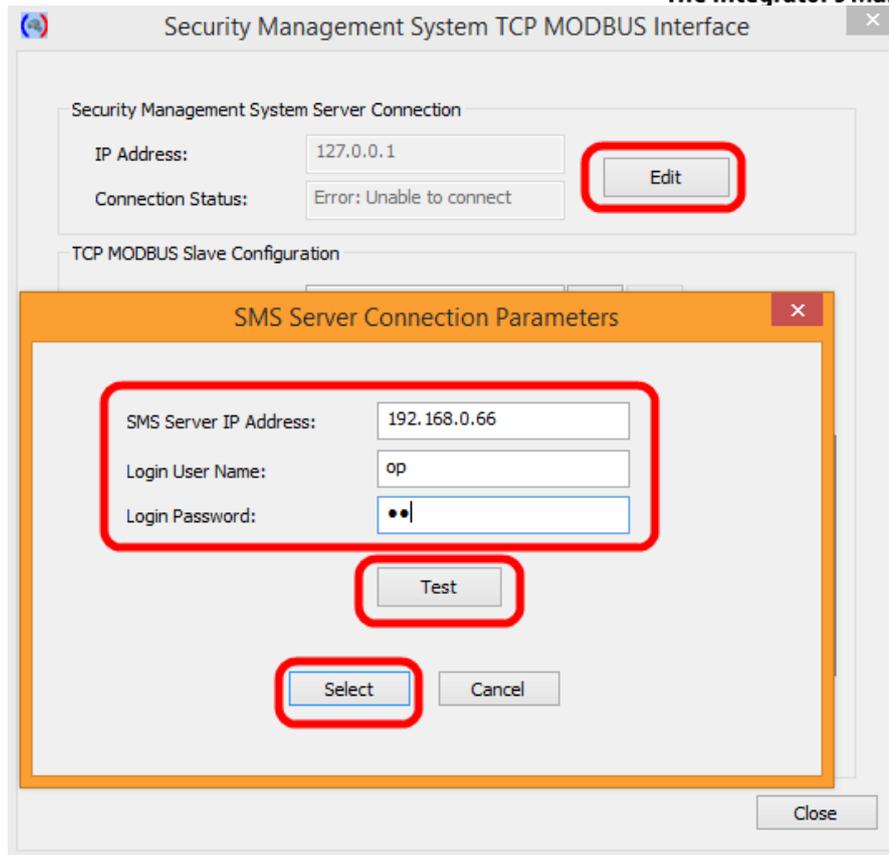
4. Type the SMS server IP Address. This is the same IP address which is used by Security Management System client software to connect to the Security Management System server software installed on the target computer (where 'SMS TCP MODBUS Interface' is being configured right now).

5. Type the 'Login User Name' and 'Login Password'. These are same login credentials are same which are used by Security Management System client software to connect to the Security Management System server software installed on the target computer (where 'SMS TCP MODBUS Interface' is being configured right now).

6. Click on the 'Test' button to confirm the successful connection with the Security Management System server.

7. Click on 'Select' button to set the new connection parameters.

8. Please make sure that 'Connection Status' is 'Connected. OK.'
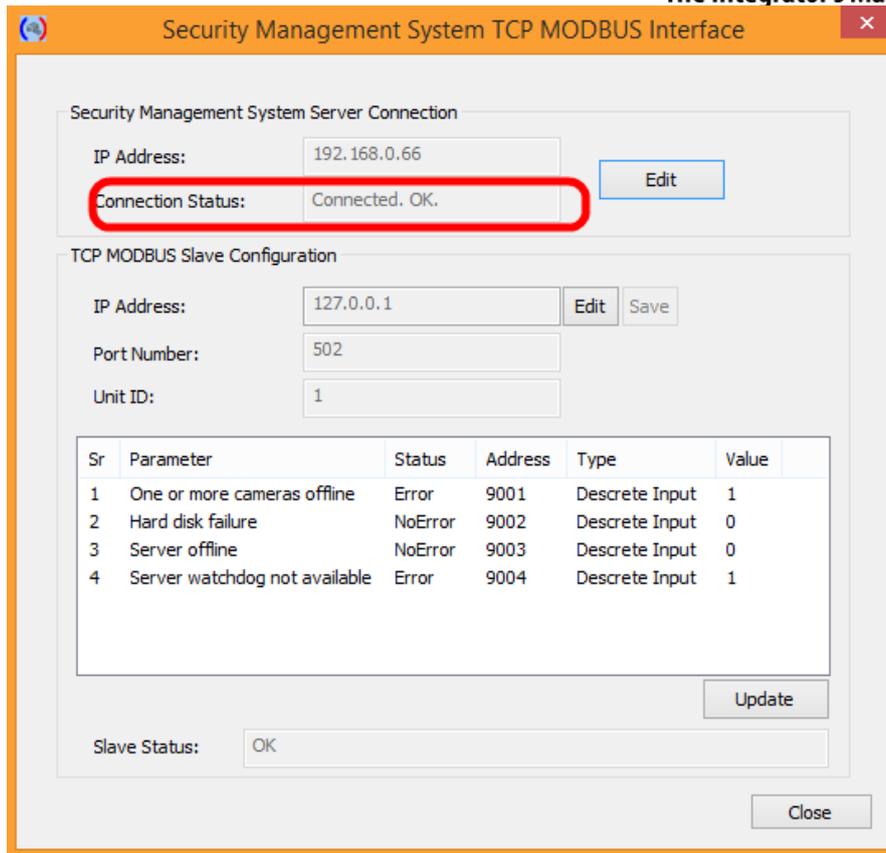
9. Click on the 'Edit' button next to 'IP Address' text box under 'TCP MODBUS Slave Configuration'.

Security Management System – TCP MODBUS Interface
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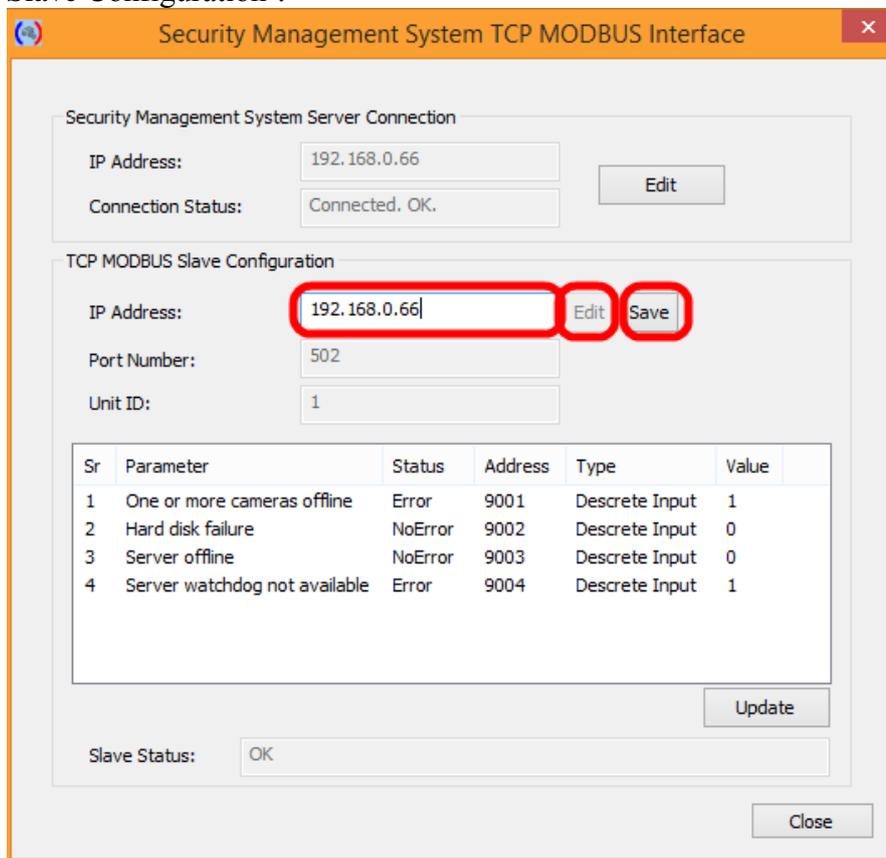
10. Type the IP Address. This is the same IP address which is used by Security Management System client software to connect to the Security Management System server software installed on the target computer (where 'SMS TCP MODBUS Interface' is being configured right now).

11. Click on the 'Save' button.

12. Please make sure that 'Slave Status' is 'OK'

13. Click on the 'Update' button available below the list control. This will pop up confirmation message. Click on 'Yes' to accept the message and to proceed.
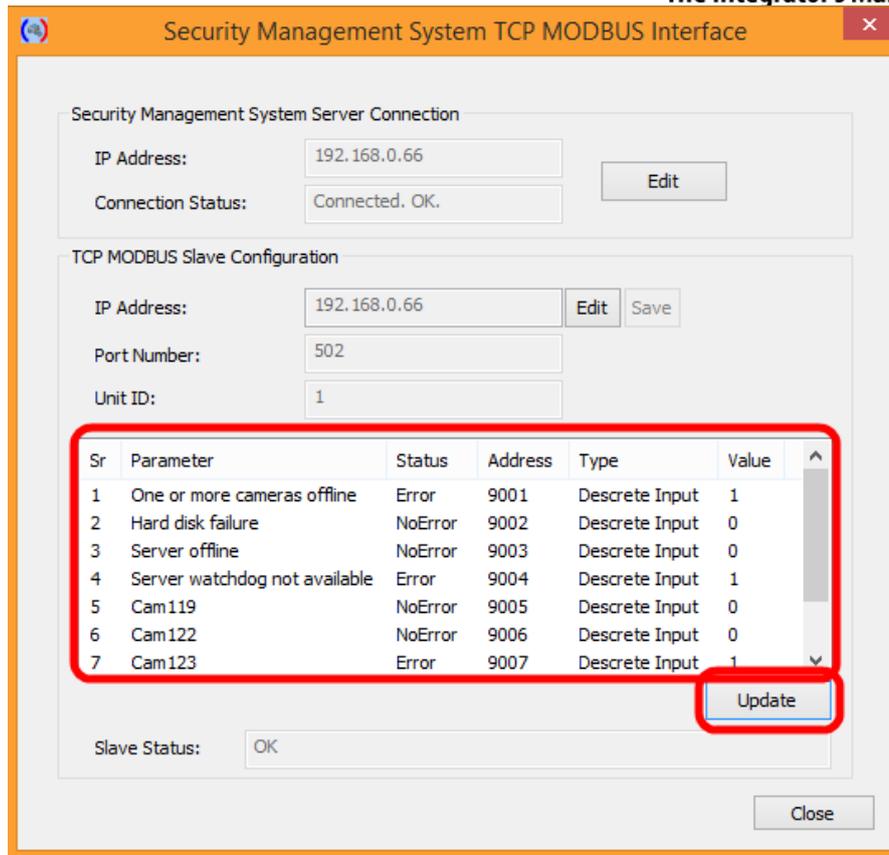
14. The parameters list will be updated with the channel names and will start displaying status for each of the channels – online / offline

The 'SMS TCP MODBUS Interface' configuration is complete now and is ready for any TCP MODBUS master to connect and to query the status for various parameters, as listed in the 'SMS TCP MODBUS Interface' application.

The TCP MODBUS master application needs to use following settings displayed under 'TCP MODBUS Slave Configuration' –
   (a) IP Address
   (b) Port Number
   (c) Unit ID

The list includes following information –
   (a) Parameter name – The name of the health parameter being monitored
   (b) Status – 'NoError' indicates there is no problem related to the specified parameter. 'Error' indicates problem.
   (c) Address – This is the address used by TCP MODBUS master application to query the status of the specified parameter
   (d) Type – This is the data type used in the TCP MODBUS communication. The TCP MODBUS master requires this 'Type' to be specified for the connection / query

(e) Value – it can be 0 or 1. 0 indicates 'NoError' status and 1 indicates 'Error' status. The 'value' is sent to the TCP MODBUS master application, as response to the parameter query.

Note – If any camera is added or removed from the Security Management System server software; 'Update' button in the 'SMS TCP MODBUS Interface' application needs to be clicked to refresh the changes.
Also since this changes the configuration of MODBUS parameters exposed, the TCP MODBUS master application too needs to be re-configured to use the new parameters.

(D) Watchdog and 24X7 working

'SMS TCP MODBUS Interface' application watchdog is automatically launched when 'SMS TCP MODBUS Interface' application is executed.

When computer is rebooted, the watchdog and the 'SMS TCP MODBUS Interface' application restarts automatically, and no manual steps are required to launch 'SMS TCP MODBUS Interface' application.