

Overview

In this example an N-664 is used to monitor up to six alarm signals such as burglar or fire alarms, motion detectors or water sensors, or similar emergency monitoring devices. When any of the monitored devices triggers, the N-664 will send an Email to a specified address indicating which alarm was detected and the time of the alarm. This permits emergency notification in case of a situation that might require immediate action, as well as an electronic record of the exact time and date at which an event occurred.

Detail

Requirements

You will need one AFI N-664 Net I/O device for this application.

You can use up to six devices which the N-664 will be monitoring. These must provide isolated contact outputs which will either make or break to indicate an alarm condition.

You must have a local network connection to which you can connect the N-664. This must include a connection to the global Internet in order for the N-664 to send email notifications. The N-664 requires a static IP Address or a static IP Address must be available and assigned to the N-664. The default IP address of the N-664 is (192.168.10.11).

You must have a web-connected computer with a standard browser which can connect to the N-664's management web page.

You must have the address of a mail server to which the N-664 can connect to in order to send email. You will need to provide a valid login and password which can be used with that mail server.

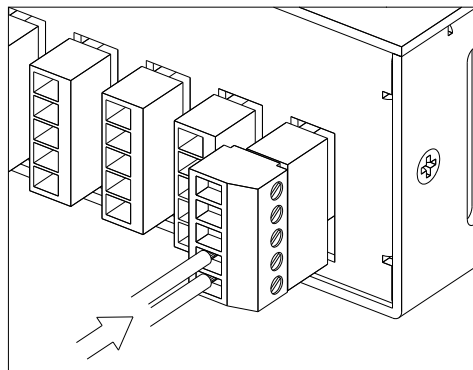
You must provide an Email address to which notifications are to be sent to. This may be up to 80 characters long.

Procedure**Attach the network connection**

Using an Ethernet cable, connect the N-664 to a network port on a router that is connected to a network where it can reach an Email server capable of sending mail to the address to which you want to send notification messages.

Connect the monitored devices

Connect the device being monitored to the terminal blocks on the rear of the N-664. Each terminal block has 5 screw terminals. Three are used for auxiliary contact output. The two terminals labeled 'IN' are the alarm input terminals. These two terminals should be connected to a contact output on any device whose activation you want to trigger an email.



Connect the alarm input as shown

Plug in the N-664

Connect the N-664 to a wall outlet with a power cord. The N-664 should go through its normal power-on LED sequence, and then will be ready for use.


Connect to the N-664 on the network

In a browser window, connect to the N-664 by typing “http://” followed by the address of the N-664. In the factory default settings the N-664 will have an address of 192.168.10.11. This address may be changed by the user to fit the local subnet.

You should see a login prompt requiring you to enter a username and password. The factory default login is 'Admin', and the factory default password is 'Password'. You should change these to something else when installing the unit.

Connect to network configuration screen

Select 'IP Ethernet Setup' on the menu on the left side of the screen. The IP Ethernet Setup screen should appear as shown.

NetIO N-664 - AF		Welcome		Mon, 28 Nov 2011 15:58:28 GMT	
		NetIO N-664			
Operator Setup		IP Ethernet Setup			
Global Settings	IP Address	<input type="text" value="192.168.1.178"/>	<input type="checkbox"/> Use DHCP		
IP Ethernet Setup	Subnet Mask	<input type="text" value="255.255.255.0"/>			
Time/Date Setup	Default Gateway	<input type="text" value="192.168.1.1"/>			
NTP Setup	DNS	<input type="text" value="0.0.0.0"/>			
Alarm Setup	MAC address	<input type="text" value="a5:39:92:59:b2:71"/>			
Aux Setup	Event Server1	<input type="text" value="0.0.0.0"/>	<input type="text" value="8800"/>		
Communications		NOT CONNECTED			
Self Test	Event Server2	<input type="text" value="0.0.0.0"/>	<input type="text" value="8800"/>		
Reboot Net I/O		NOT CONNECTED			
	Event Server3	<input type="text" value="0.0.0.0"/>	<input type="text" value="8800"/>		
		NOT CONNECTED			
	Event Server4	<input type="text" value="0.0.0.0"/>	<input type="text" value="8800"/>		
		NOT CONNECTED			
	To address	<input type="text" value="ealerts@yourcompany.com"/>			
	Mail server	<input type="text"/>			
	Login name	<input type="text"/>			
	Password	<input type="password"/>			
	Retries	<input type="text" value="3"/>	Every	<input type="text" value="15"/>	minutes
	Mail status				
	<input type="button" value="Save"/>	<input type="button" value="Default"/>			
<small>Copyright © 2008 American Fibertek, Inc. All rights reserved. Firmware version 1.12</small>					

Change IP address and other network settings

The top section of the IP setup screen contains the settings which are used to specifically configure the network connection of this N-664 unit. These settings are initially set to factory presets. In most applications these will need to be changed as needed to match your local network configuration.

You will need to reboot the unit after changing the IP settings. When you power-cycle the unit, you will need to connect to it with the new IP address.

Set DNS

In order to send email, the N-664 needs the address of a working DNS where it can look up the address of the email server. This will need to be provided in standard dotted quad format.

Set email address

The bottom section of the IP setup screen contains the settings which are used to set up the alert target Email connection.

You will need to provide an Email address for the alarm notifications to be sent to. This email address is entered in the 'To address' field and may be up to 80 characters long.

Set mail server address, mail login and password

You will need to supply an address for a mail server which the N-664 will connect to when it needs to send an Email, and a valid login and password for that mail server.

Change number of retries and retry time if desired

By the default settings, if the N-664 is unsuccessful in sending an email on alarm notification, it will wait fifteen minutes and then try again. If it fails to send an alarm message three times, the message is discarded. In most cases, you will not need to change the number of retries or time between retries.

Save your settings

Click on the 'Save' button at the bottom of the screen. This will save the device settings to memory.

Connect to alarm configuration screen

Select 'Alarm Setup' on the menu on the left side of the screen. The Alarm Setup screen should appear as shown.

NetIO N-664 - AR Welcome Mon, 28 Nov 2011 19:12:27 GMT

NetIO N-664

Operator Setup | **Alarm Setup**

Global Settings | Alarm in 1 | Email | Aux 1 | on | 0 seconds | Aux 1 | on | 0 seconds

IP Ethernet Setup | alarm-1 | IP:PORT 1 | 0.0.0.0:23 | Message - Alarm | TEST

Time/Date Setup | | | | Message - Clear | TEST

NTP Setup | | | | Message - Alarm | TEST

Alarm Setup | Normally Open | IP:PORT 2 | 0.0.0.0:23 | Message - Clear | TEST

Aux Setup | | | | Aux 1 | on | 0 seconds | ON | OFF

Communications | 1 second | Virtual Aux 1 | 0.0.0.0 | Aux 1 | on | 0 seconds | ON | OFF

Self Test | OFF | Virtual Aux 2 | 0.0.0.0 | | | |

Reboot Net I/O | | | | | | |

Set alarm condition

In the default condition an alarm will be triggered if selected input contact is closed for one second. If desired you can change the alarm condition to trigger if the contact is opened, or change the time a condition must be sustained before an alarm is registered.

Set name of alarm input

Each alarm input has an associated name. When that alarm input is triggered, this name will be used in the Email message to indicate which alarm was triggered, along with the alarm number. For example, if alarm 1 has been labeled “Front Door”, the email message sent when that alarm is triggered will contain the line “Alarm 1 Front Door ON”.

Set alarm email flag

Each alarm input has a checkbox which controls whether an email message will be sent when that alarm input activates. This setting is off by default. To enable email notification on an alarm, click on the checkbox to turn it on.

Save your settings

Click the ‘Save’ button. This will save the alarm configuration settings to memory.

Operation

The N664 scans all alarm inputs every 100 ms. When an alarm is detected to be in the specified alarm state for the specified minimum time period, the N-664 adds the notification of the alarm change to a list of pending alarm messages. Multiple alarms which occur within a very short period of each other will be sent in a single email, with each alarm being detailed on a separate line in the email.

When an email message is ready to be sent, the N-664 will attempt to connect the specified mail server, using the specified login and password, and will then send an email message to the specified address. If the attempt fails, the N-664 will wait a specified time before attempting again.

Each email message received will indicate what alarm was triggered, and a time stamp noting the exact time at which the alarm was registered by the N-664. If multiple alarms are listed in a single email, each alarm will have its own timestamp.

Using the N-664 to send SMS messages on alarm events

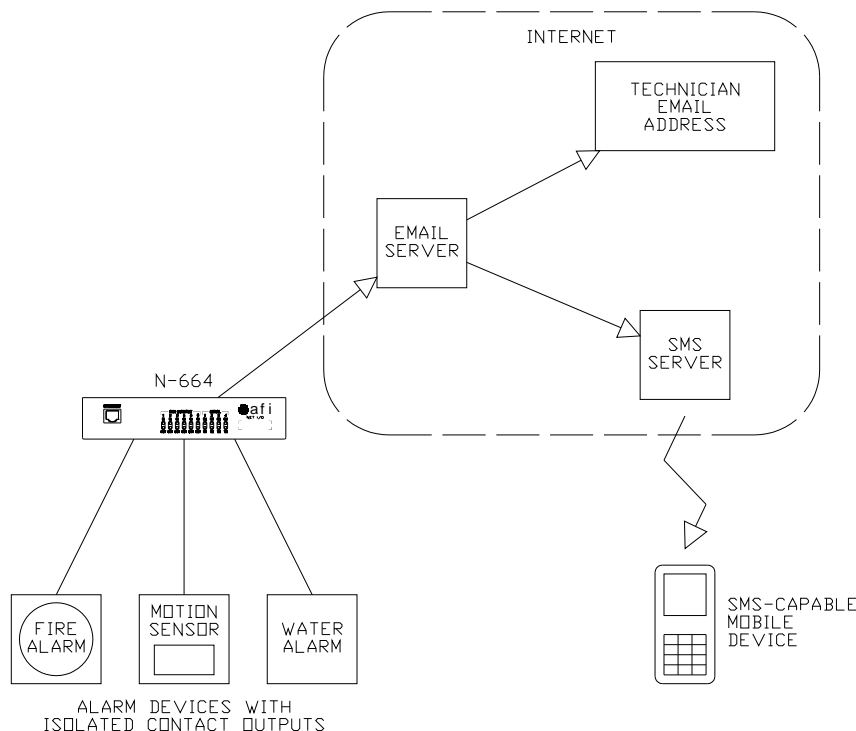
The Vnes Net I/O products can be used to send an email message in response to a dry contact alarm input from a fire alarm, burglar alarm, flood detector, or other surveillance system. This feature can be used to trigger a SMS text message to a mobile device, alerting personnel to an emergency situation much faster than would be possible with a conventional central monitoring service.

Sending SMS messages to mobile devices takes advantage of the SMS domains of cellular service providers. Most popular cellular services permit messages to be sent by email to mobile devices by sending an email message to an address at the phone service. The following email addresses are used to send SMS messages with the specified providers:

T-Mobile phonenumber@tmomail.net
 Virgin Mobile phonenumber@vmobl.com
 Cingular phonenumber@cingularme.com

ATT phonenumber@txt.att.net
 Sprint phonenumber@messaging.sprintpcs.com
 Verizon phonenumber@vtext.com
 Nextel phonenumber@messaging.nextel.com

where phone number is the 10 digit phone number of the mobile device you are sending a message to.





Using the N-664 to Send emails and SMS Messages on Triggering of Alarm Devices

Application
Note

To configure the N-664 to send a SMS message on triggering of an alarm, enter the email address for the mobile device in the “To address” field in the network configuration screen. You will need to provide a mail server address, and a login and password for that mail server, in order for the N-664 to be able to send email messages. After saving the email address and server information, enable the Email flag for the alarm input in the Alarm Configuration screen.

When the N-664 detects an alarm event, as determined by a change in a contact state on any contact input with email notification enabled, it will send an alarm message identifying the alarm which occurred and the time at which the alarm was detected to the programmed user email addresses. If an email alert is sent to a valid SMS email address, then the SMS server will automatically relay a text message to that mobile device. This function allows legacy alarm systems with no network compatibility to send notifications immediately in the event of a fire, break-in, flood, or other emergency situation.