

## Application Note

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## Using the NIC<sup>®</sup> Email Alerts<sup>™</sup> Feature

The NIC Email Alerts feature allows a NIC unit to send email notification messages to one or more email address, at specified time intervals based on the errors or alarms received. This is a unique feature of the NIC and can assist greatly in the performance of long-term testing or troubleshooting.

The steps in this application note describe sending and terminating Email Alerts.

### ***About Email Alerts***

Email alerts can be sent to one or more email address when the NIC detects a specified error or alarm type. The subject line of the received emails will include the error/alarm type specified, as well as the name of the processor tab as defined in User Preference screen. The body of the email will list the error/alarm type(s) received, the date and time the email was sent, as well as the unit serial number.

Email notifications can also be sent to any mobile telephone capable of receiving email messages. Contact your mobile phone provider for your telephone's unique email address.

Email notifications can also be sent to multiple recipients of a distribution-list email address.

Email Alerts can be configured from the local Graphical User Interface (GUI) of the NIC unit via the touch screen, or from any Remote GUI connections, independently and simultaneously. This flexibility allows for greater test coverage, and can even be used to alert different individuals of different events that may occur on different processors at different times.

**Important:** The remote GUI must remain connected to the NIC unit to generate Email Alerts.

**Note:** Do not reply to the email alerts; the NIC can only generate emails, it does not have the ability to receive emails.

### ***Setting up Email Alerts***

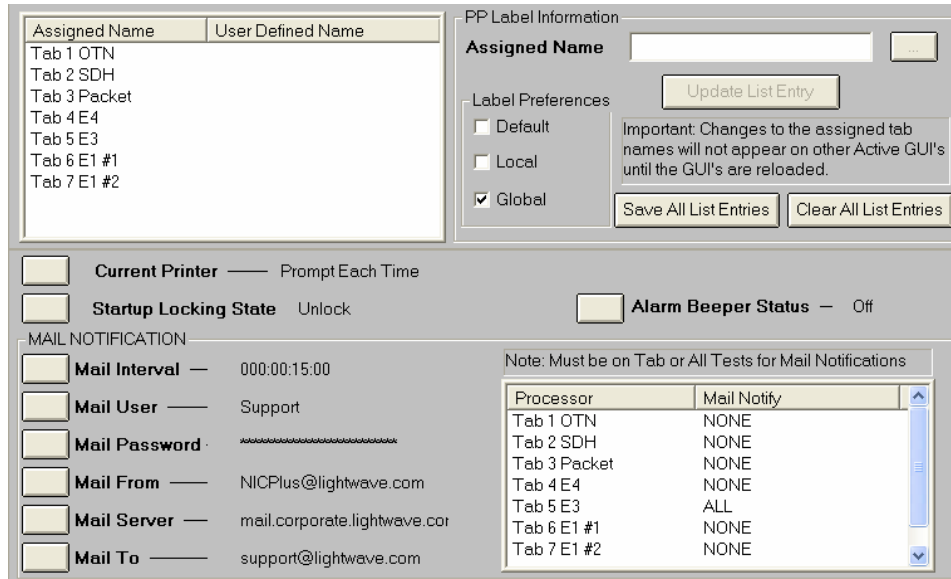
Before using the Email Alerts feature, check with your Network Administrator to verify that your network's email server is set up to accept and forward SMTP mail.

**Important:** After the Email Alerts settings are completed, email notifications will only be sent if the GUI is actively viewing either the All Tests Status window or the protocol processor tab for which the Mail Notify setting has been configured.

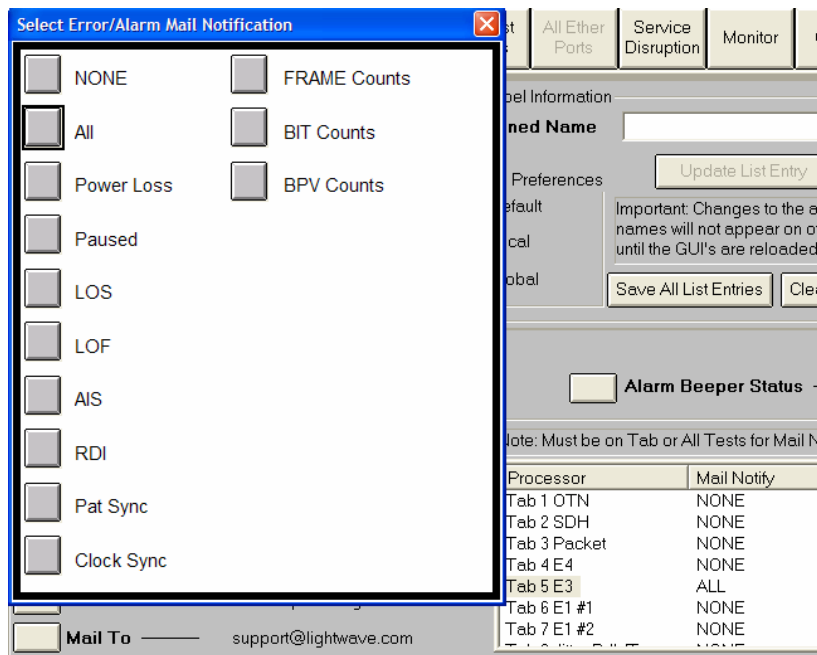
If more than one protocol processor has been configured to send an email, then the GUI must be viewing the All Tests Status screen to ensure that an email will be sent if any of the configured processors receives their specified errors/alarms. Email alert messages will not be generated if these conditions are not met.

**To set up Email Alerts:**

1. Ensure the NIC unit is connected via an Ethernet cable to your network; and it is properly configured with a valid IP Address, Subnet Mask, and Router if necessary.
2. Select the **System** tab.
3. Select the **User Preference** button. The User Preference screen appears.



4. From the **Processor / Mail Notify** list box, select the protocol processor for which you want to set up Email Alerts. The **Select Error/Alarm Mail Notification** window appears.



5. Select the desired error/alarm type to monitor, or select **All** to monitor all of the errors and alarms listed for that processor.
  - When NONE is selected, then no emails will be generated from that processor, regardless to the error/alarm condition of the processor
  - Some processors have more selections than the window can display at one time. In this case, the last option will be More. Select **More** to see the next sheet of error/alarm types to choose from
  - You can configure additional protocol processors for Email Alerts by selecting another processor, after choosing the desired error/alarm type for this processor
  - When monitoring multiple processors, each processor can be configured for its own error/alarm type, or select **All** to monitor all errors and alarms listed for each
  - **Important:** The **Processor / Mail Notify settings** DO NOT persist after the unit has been rebooted
6. Select  **Mail From** and enter an identifiable email address.
  - The default setting is the last four digits of the unit's serial number
  - **Important:** Some email servers may require the "@domainname.com" extension to be added to this setting, in order for the email to be sent
7. Select  **Mail Server** and enter your network's Outgoing Main Server Address.
  - For example, ms1 or mail.corporate.lightwave.com, etc.
8. Select  **Mail To** and enter the recipient's email address.
  - Multiple recipient email addresses can be entered by separating each of them with just a comma (do not use a semi-colon)
  - This entry is limited to a total of 65 characters. However, multiple Remote GUI's can be connected to one unit, and each used to send emails to different recipients. Also, you can set up group emails with your email system where one address delivers the message to several recipients
9. Select  **Mail Interval** and pick a desired time setting from the **Duration of Test** window.
  - This option determines the minimum amount of time required to elapse between email notifications
  - The first email notification will be generated the instant that any of the selected errors/alarms occur, regardless of what the Mail Interval setting is set to. The **Mail Interval** setting then determines how long the system waits until it re-checks that processor's errors/alarms again
  - If the processor is still receiving the selected error/alarm (or any other errors/alarms if ALL is specified) after the Mail Interval time has elapsed, then

the system will generate a follow-up email, and continue to repeat in this manner for as long as the error/alarm condition(s) are being received

- If the processor is no longer receiving the selected error/alarm after the Mail Interval time elapses, then the system will not generate another email, but rather wait until the next error/alarm occurrence. As before, the system will then wait for the Mail Interval time to elapse before re-checking the processor again
- If more than one processor receives their specified errors/alarms at different times, then they will each independently generate an email when their respective event occurs, and they will each independently wait for the specified Mail Interval time to elapse before checking their errors/alarms again
- If at any time the processor being monitored is **restarted**, causing the Elapsed Time to revert back to 000:00:00:00, then an email notification will be generated at the next onset of the specified error/alarm type, at which point the processor once again begins to wait for the specified Time Interval to elapse before it re-checks for errors/alarms again

10. **Conditional:** Select  Mail User and enter a valid network User ID. Select  Mail Password enter the Password for the specified network User ID.

- The **Mail User** and **Mail Password** settings may or may not be required, depending on the network's configuration and security settings
- Only enter this information if Email Alerts are not being sent without it
- **Note:** The **Mail Password** is not saved, displayed, shared, transmitted to anyone, or accessible by anyone in any way
- **Important:** The **Mail Password** setting DOES NOT persist after the unit has been rebooted

11. After you have finished configuring the Email Alerts, the GUI must actively be monitoring the specified protocol processor(s) for which the Email Alerts have been configured, at all times.




- **Important:** If the GUI is not monitoring the selected processor(s) at the time a specified event occurs, an email will not be generated
- For reliable email generation when multiple processors have been configured to be monitored, you must select the **All Tests Status** window located under the System tab. The All Test Status window is capable of monitoring all processors at the same time, allowing emails to be generated for any configured processor if a specified error or alarm event occurs
- If you have configured to monitor a single processor, then you may select either the **All Tests Status** window, or any window under that processor's tab
- **Note:** A Remote GUI connection could be used for the sole purpose of Email Alerts, to free up the local GUI (or other remote GUI's) for other protocol testing purposes

## Testing Email Alerts (optional)

It is strongly suggested to test Email Alerts configurations prior to leaving the unit unattended of an important long-term test.

1. From the User Preference window, configure all of the Email Alert settings as describe in the sections above, customized for your specific test needs with two exceptions.
  - i. Choose either **ALL** or **LOS** from the **Select Error/Alarm Mail Notification** window for the specified processor
  - ii. Enter 1 minute for the Mail Interval Time. This way, after the test email is sent, the processor only has to wait one minute before it is ready to send the next email
2. Select the configured Protocol Processor tab, and momentarily unplug the receive Fiber Optic or Electrical Interface cable, causing a brief LOS situation to occur.
3. Check the designated email inbox, and verify that the email notification was received.
  - If the email alert does not appear in the Inbox, then be sure to check any anti-spam mail folders before adjusting the Email Alerts settings
  - If a spam filter did not redirect the email alert, then some adjustments to the Email Alerts' settings may need to be made
  - If the Mail Interval, Mail To and Mail Server settings all look correct, then add the “@domainname.com” extension to the **Mail From** setting, or enter a valid **Mail User ID** and **Mail Password**, and try the test again
4. If the test mail is received, then this completes the Email Alerts notification test.
  - Reconfigure the **Processor / Mail Notify** setting for the desired error/alarm type
  - Reconfigure the **Mail Interval** to the desired duration for the actual test
  - Remember to leave the GUI parked on the configured Protocol Processor tab, or the All Test Status screen

## Terminating Email Alerts

1. Select the  tab.
2. Select the  button. The User Preference screen appears.
3. Select  **Mail Interval** and from the **Select Duration of Test** window, choose **OFF**.
4. In the **Processor/Mail Notify** list box, select the protocol processor for which you want to terminate the Email Alerts for and choose **None** from the **Select Error/Alarm Mail Notification** window.