



ProcessLogix R400.0 Server Alarm Messaging to Cellular Phones

Catalog Number 1757-PLX52

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About This Publication

This release note describes how to configure a ProcessLogix R400.0 Server to send alarm-based messages of Server points to cellular phones.

ProcessLogix R400.0 includes a feature that allows a Server to send alarm-based messages to conventional pagers. This release note describes how to use Server point scripting to send these messages to a cellular phone.

Before You Begin

Before beginning the installation, download **Q811114_W2K_SP4_X86_EN.exe** and **iislockd.exe**, from the Microsoft Download Center (<http://www.microsoft.com/downloads>), to your ProcessLogix Servers.

ATTENTION



All installation and configuration procedures listed in this document should be performed with the system off-process. Be certain that your process is off control and the 1757-PLX52 is in the Idle state before you begin this procedure.

System Components

The following components have been evaluated and confirmed capable to send and receive alarm messages on a cellular phone:

- Windows 2000 Server with Service Pack 2 or 3
- ProcessLogix R400.0 SP2
- A cellular phone that can receive email messages

Server Configuration

IMPORTANT

You must complete the procedures in this section on all Servers in your ProcessLogix system.

If you have a redundant Server pair, you must complete this section on SERVERB first, and then repeat the section for SERVERA. Be certain that SERVERA is the Primary Server before beginning the installation.

Refer to Knowledge Builder for details on redundant Server systems.

TCP/IP Configuration

In order for SMTP (Simple Mail Transfer Protocol) Services to run on a ProcessLogix Server, the Server must have a network connection. Also, the Server's IP address has to be registered in the Mail Server so it must be a fixed or static IP address.

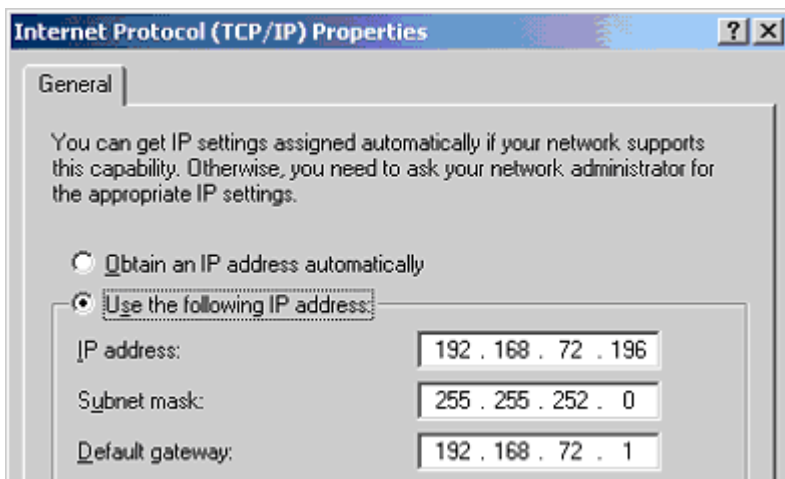
IMPORTANT

In some organizations it is important for these addresses to be controlled by the IT organization. Consult your company's practices and IT organization for the appropriate IP address and DNS (Domain Name System) server information. It is necessary to use valid IP information to integrate the ProcessLogix Control system with the Business Network.

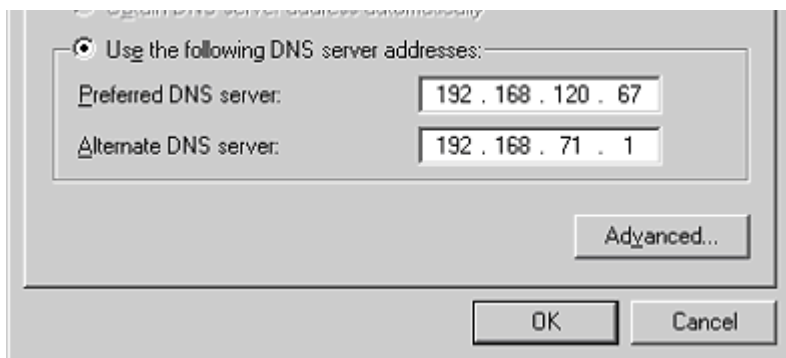
This section provides an example of how to configure the TCP/IP settings.

1. From the Start menu, select Settings > Control Panel.
2. Double-click Network and Dial-up Connections.
3. Identify the network connection that is identified for communication with the DNS server, right-click the corresponding Local Area Connection icon, and select Properties.
4. Select Internet Protocol (TCP/IP) and click Properties.

5. Enter the appropriate IP address, Subnet mask, and Default gateway as shown in this example.



6. Enter the appropriate DNS server information as shown in this example.



7. Click OK.
8. Click OK.

Install IIS and SMTP Services

This procedure describes how to install and configure Internet Information Server (IIS) to send alarm-based messages of Server points to cellular phone.

You must complete this procedure on all Servers in your ProcessLogix system. If you have a redundant Server pair, you must complete the following procedure on SERVERB first, then repeat the procedure for SERVERA. Be certain that SERVERA is the Primary Server before beginning the installation.

1. Close all running applications, including ProcessLogix applications, such as Control Builder, Station, and Network Tools (NTOOLS).
2. From the Start menu, select Settings > Control Panel.
3. Double-click Add/Remove Programs.
4. Click Add/Remove Windows Components.
5. Check the Internet Information Services (IIS) checkbox and click Details.
6. Uncheck all subcomponents **except** the following:
 - Common Files
 - Internet Information Services
 - Snap-In
 - World Wide Web Server
 - SMTP Service
7. Click OK.
8. When prompted, insert the Windows 2000 Server CD and click OK.
9. Click Next.
10. If prompted to select a configuration mode for Windows Terminal Services, select your current mode and click Next.
11. Click Finish.
12. Close the Add/Remove Programs dialog.
13. Close Control Panel dialog.
14. Restart the Server.

Reapply the Windows 2000 Service Pack

After installing IIS, it is necessary to reapply the Windows service pack on your machine.

1. Locate the service pack .exe file that corresponds to the service pack version on your computer.

Windows Service Pack 2 is available on the ProcessLogix R400.0 Software CD2 that was shipped with your ProcessLogix software. You can also download the appropriate service pack from the Microsoft website (<http://www.microsoft.com/windows2000/downloads/servicepacks/default.msp>).

IMPORTANT

Windows Service Pack 4 is not qualified for the ProcessLogix R400.0 Server. Refer to Knowledgebase Tech Note ID 27377 for more information.

2. Double-click the .exe file (for example, w2ksp2.exe) to begin installation.
3. Follow the on-screen prompts to install.
4. When installation is complete, click Finish.
5. If prompted to do so, restart the computer.

Install the Cumulative Patch for IIS

The cumulative patch for IIS helps to protect the Web server from several new security vulnerabilities. Complete the following steps to install the patch.

1. Double-click Q811114_W2K_SP4_X86_EN.exe.
2. At the welcome screen, click Next.
3. When prompted, select I Agree and click Next.
4. If you are prompted about stopping and restarting some services, click Continue.
5. Click Finish.

Install the IIS Lockdown Tool

Microsoft has released an updated version of the IIS Lockdown Tool, which provides templates for the major IIS-dependent Microsoft products. Complete the following steps to install the tool.

1. Double-click iislockd.exe.
2. At the welcome screen, click Next.
3. When prompted, select I Agree and click Next.
4. Select Other for the server template and click Next.
5. Check the email service (SMTP) checkbox and click Next.
6. To apply the security settings, click Next.
7. After the security settings have been applied, click Next.
8. Click Finish.

SMTP Server Configuration

This section provides an example SMTP configuration where the ProcessLogix Server does not have direct connectivity to any mailing network including the Internet. We recommend that you contact your network administrator in order to configure the IIS services, SMTP server, and the smart host address (outbound email server IP address).

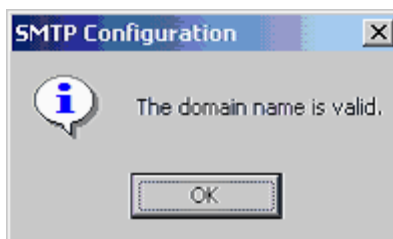
1. From the Start menu, select Programs > Administrative Tools > Internet Services Manager.
2. Expand the Local Server tree.
3. Right-click Default SMTP Virtual Server and select Properties.
4. Select your Server's IP address from the IP address pull-down menu.
5. Check the Enable logging checkbox.
6. On the Access tab, click Authentication.
7. In the Default domain field, enter (Server Name.domain).
8. Click OK.

9. On the Access tab, click Relay.
10. Select the Only the list below option.
11. Click Add.
12. Select Single Computer and enter the Smart Host ID in the IP address.
13. Click OK.
14. Click OK.
15. On the Delivery tab, click Advanced.
16. In the Advanced Delivery dialog, enter the following.

Field	Entry
Masquerade domain	(server name)
Fully-qualified domain name	(server name.domain)
Smart host	(outbound email Server IP address)

17. Click Check DNS.

The following message appears if the DNS is configured correctly.



18. Click OK.
19. Click Apply.
20. Click OK to close the Properties dialog.
21. Restart the Server.

If you have a redundant Server, repeat all sections of the Server Configuration on SERVERA.

Refer to Server Configuration on page 3.

If you have a nonredundant Server, Server Configuration is complete. Continue with Script and Load Server Points on page 9.

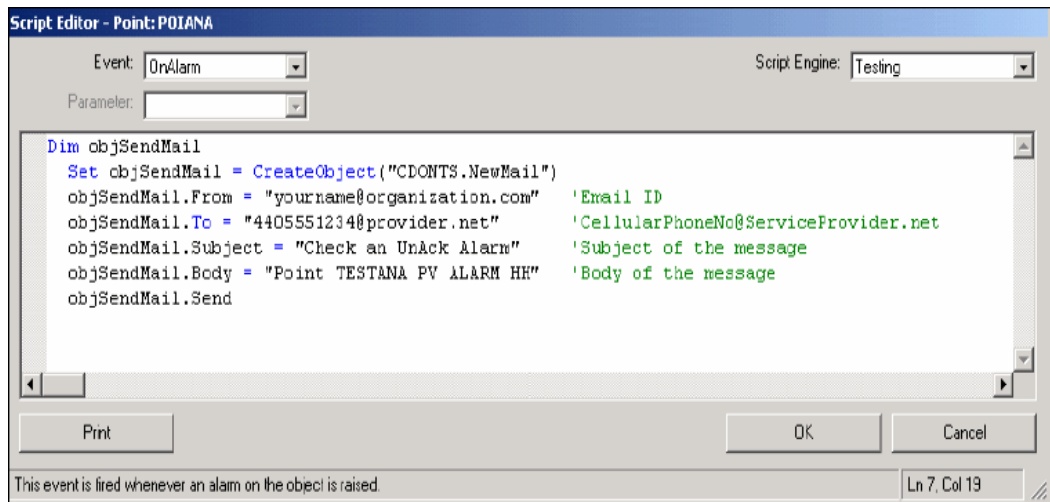
Script and Load Server Points

The following procedure is an example of how to generate the messages sent to a cell phone from the Script Engine. The script is written in Quick Builder and points are loaded to the Server.

1. Launch Quick Builder and create a new project or open an existing project.
2. On the Points tab, create new tags if the required tags are not already listed.
3. Select the desired tag.
4. On the Scripts tab, click Create New or Edit Existing Server Scripts.
5. From the Event pull-down menu, select OnAlarm.
6. From the Script Engine pull-down menu, select Testing.

New Script Engines can be created if necessary. ProcessLogix R400.0 supports a total of 5 automatic and 15 manual Script Engines.

7. Write a script following this example.



When the point generates an alarm, the script engine sends a message to the cellular phone number identified in the script.

In this script, the alarm messages are sent to 4405551234@provider.net, where (440)555-1234 is the cellular phone number and provider.net is the service provider's Email ID (available from your service provider).

For limitations and more information, navigate in Knowledge Builder to ProcessLogix > Server Scripting Reference.

8. When you have completed the script, click OK.
9. Download the point to the Server.

Verify the Script Engine Status

In the following procedure you verify that the Script Engine is running.

1. Launch Station.
2. From the Configure menu, select Server Scripting > Script Engines.
3. On the Manual Engines tab, verify that the display shows a simulated green LED and Status:Running for the Testing engine.

The number of running scripts that appear in the Total scripts column varies based on how many points are downloaded with the associated script.

Test the Script

The following test uses an existing scada point in Alarm to test the scripts downloaded with the points.

1. In Station, open the detailed display of the point which has an alarm script.
2. Configure the Alarm options of this point.
3. Put the point into alarm state.
4. Verify that the cellular phone, and any other email address listed in the script, receives an alarm-based message.
5. Acknowledge the alarm and bring the point out of alarm state.

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