# 2017

#### Application Generated Emails

# **Email Relay Service**

To send notification/auto generated/bulk mails, NIC messaging service provides Email Relay Service.

You can use the NIC Relay Service to integrate the functionality of NIC Relay Service directly into applications you develop. Or you can use the NIC Relay Service to send email through the third-party applications you already use, such as email clients, ticketing systems, and autoresponders.

# Bulk Emails

**Notification Emails** 

Messaging and SMS Division Messaging and SMS Division 8/15/2017



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### About the Document

#### **Audience**

This document is intended for those who want to send auto generated, notification mails or bulk mails through application.

#### Purpose

It elaborates how to avail and use NIC Email Relay Service and troubleshooting steps of relay services.

#### **Authorship**

This manual has been created by Messaging and SMS division, National Informatics Centre, Ministry of Electronics and information Technology, Government of India.

# NIC Email Relay Service

To send application generated emails, bulk emails or notification mails, NIC Messaging Service provides "Email Relay service".

NIC Email Relay Service is an email platform that provides an easy, cost-effective way for you to send and receive email using your own email addresses and domains.

For example, you can send emails such as newsletters, official mail communication between Government to Government, Government to Citizen, Government to Business, Business to Government, Citizen to Government.

When you use NIC Email Relay Service to send mail, you can develop software solutions such as email autoresponders, and applications that generate customer support tickets from incoming emails.

# How it works

NIC Relay Server accept mail from application server on SMTP (Simple Mail Transfer Protocol) on port 25 and 465. The applications which are hosted on NIC/NKN Network can send mails on SMTP port 25 and applications which are hosted outside NIC/NKN Network can send the mails on port 465.



To send application generated mails, IP address of application server must be whitelisted. Once IP address is white-listed in Relay Server, application can send email to relay on smtp port 25 or 465



# How to avail Relay Service

To avail the relay service, provide duly filled Relay Server Request Form along with valid Security Audit Certificate from any empanel-led organizations by CERT-In.

You can get the form from <u>https://mail.gov.in</u> >> Download Forms >> Relay Server Request Form

https://msgapp.emailgov.in/OnlineForms/Relay\_Server\_Request.jsp

#### How do I start?

If you are a first-time user of NIC Relay Server, we recommend that you begin by filling following forms:

(i) **Relay Server Request Form**: After accepting the terms and conditions, proceed to fill the form.

(ii) **Firewall Request**: Firewall request has to be filled by respective NIC coordinator for RELAY access through URL <u>https://farps.nic.in/</u>.

You may get list of NIC Coordinators using below URL. https://msgapp.emailgov.in/OnlineForms/nic\_coordinators.jsp

#### How to fill the form?

(i) Relay Server Request Form:

#### Step 1.

Get the form from <u>https://mail.gov.in</u> >> Download Forms >> Relay Server Request Form

Or,

Visit <a href="https://msgapp.emailgov.in/OnlineForms/Relay\_Server\_Request.jsp">https://msgapp.emailgov.in/OnlineForms/Relay\_Server\_Request.jsp</a>

#### Step 2.

Select "Relay Server Request Form". Relay Server Request Form will appear on the page as shown below:

| Home / Relay Server Request   |   |         |        |
|---|---|---------|--------|
| Relay Server Request  |   |         |        |
| Relay Server Request Form   |   |         |        |
|   |   |         |        |
| 1   | 2                                       | 3       | 4      |
| Terms & Conditions  | Form Details                            | Preview | Submit |
| Relay Server Request Terms and Conditions   |   |         |        |
| <ol> <li>Fill one form for one IP only.</li> <li>If administrator is from outside NIC, please get ti</li> <li>All fields are mandatory.</li> </ol>  | e form approved by NIC coordinator.     |         |        |
| This is to declare that I have read the terms and one of the terms and one of the terms and one of the terms are the terms and one of the terms are the t | onditions and I agree to abide by them. |         |        |
|   |   |         |        |
|   |   |         | Next > |

#### Step 3.

1. Enter enterin 2. Ente admini address,

3. Enter e

Accept the term and condition to proceed further. And click next, a new page will appear. Proceed to fill the form

#### **User Details**

- Enter the name of the division. a.
- Enter the name of the Administrator (user) with email address. b.
- Now, enter the mobile number and landline number in proper format (10 digit c. mobile number and landline number followed by STD code 3-5 digits).
- You will have an HOD assigned, please enter the HOD name with his official d. email id.
- Enter HOD mobile number and landline number. e.

|  | Home / Relay Server Request                                |   |              |
|--|--|---|--------------|
|  | Relay Server Request                                       |   |              |
|  | Relay Server Request Form                                  |   |              |
|  | 1<br>Terms & Conditions                                    | 2<br>orm Details Preview  | 4<br>Submit  |
|  | User Details   |   |              |
|  | Name of Division *   |   |              |
|  | NIC  |   |              |
|  | Name of Administrator *                                    | Administrator Email *   |              |
| . Enter the user details by                | NEDFKD   | dikdsfh.dfhk@gmail.com  |              |
| Division.<br>2. Enter the name of the      | Administrator Mobile *<br>( Allowed Format :: [XXXXXXXXX]) | Administrator Telephone *<br>( Allowed Format :: [XXX-XXXXXX] OR [X | XXXXXXXX])   |
| administrator with email                   | 7898765678   | 9876789987  |              |
| ddress, phone number and                   | HOD Name *   | HOD Email *   |              |
| . Enter the HOD name with                  | HBJLLKJ  | dijh bhuloj@nic.in  |              |
| email address.<br>4. Also enter HOD mobile | HOD Mobile *<br>( Allowed Format :: [XXXXXXXXX])           | HOD Telephone"<br>( Allowed Format :: [XXX-XXXXXX] OR [X            | XXXXXXXXXX]) |
| and landline number.                       | 4567890764   | 0987656789  |              |

#### **Server Details**

- a. Enter the application name and the operating system (name, version) in the space provided.
- b. Now, provide us with the IP address of the system (\*\* for staging server IP will be allowed for maximum 15 days). \*\*Staging server- A staging server is a type of server that is used to test a software, website or service in a production-similar environment before being set live. It is part of a staging environment or staging site, where it serves as a temporary hosting and testing server for any new software or websites
- c. Enter the MAC address of the server and the location of the server.
   \*\*Get the MAC address using below command after login ipconfig/all (For Windows) ipconfig -a (For Linux)
- d. Enter the Captcha value and click on "Submit" button.

| 1. Now, enter the server   | Server Details   |  |
|--|--|--|
| details with the application<br>name.  | Application Name "   | Operating System (Name, Version) "       |
| 2. Provide inputs in<br>Operating system(with the  | FDJIKFDI   | Windows                                  |
| name, version)<br>3. Enter the IP address of the   | IP Address *   |  |
| system.<br>4. For staging server(A   | 1.1.1.3  | ]  |
| staging server is a type of<br>server that is used to test a<br>software, website or service | For Staging Server, please check ( IP will be allow maximum for 15 days )                                      | 8  |
| in a production-similar<br>environment before being set                                      | Mac Address of Server<br>(Format - XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-X                                       | Location of Server*                      |
| live.), please check (IP will be<br>allowed maximum for 15                                   | AF-10-10-10-10   | Deihi                                    |
| days)<br>5. Enter the MAC address and<br>location of the server.                             |  | 1  |
|  |  |  |
|  | Captcha Detail   |  |
|  | and full and an  | Enter Captcha*                           |
|  | Captona Ombi GI  | bmEIGT]                                  |
|  |  |  |
|  |  |  |
|  | NOTE:  |  |
|  | * All fields are mandatory. ** Application should have Security Audit Clearance. Attach the security audit cle | arance certificate along with this form. |
| Enter the CAPTCHA value in the box provided to verify  | Fill one form for one IP only  |  |
| the details filled   |  |  |
|  | Submit Click on submit button to for subr  | nission of form.                         |

#### Step 4:

**Review & Submit:** This page shows the preview of the details filled earlier in the form. If you want to EDIT any details click on edit button to make changes and if the details filled are correct and verified click on CONFIRM.

#### Step 5:

After step 4 i.e. **Review & Submit** page, you will be redirected to the next page where you will be asked to generate PDF of the form submitted.

#### Click on generate PDF to download the filled form in PDF format.

**Step 6**: After step 5 you will receive a registration number which will be required for checking the status of the form in future. Please save the number for your reference.

Download the form to get the print. You will have to get the form duly seal & signed by the administrator and HOD of the concerned NIC cell.

(ii) **Firewall Request**: Firewall request has to be filled by respective NIC coordinator for RELAY access through URL <u>https://farps.nic.in/</u> as described below in **Sample Firewall request**.

| Are you the Server/ Website/<br>Application Owner ?   | NO                              |  |  |
|---|---------------------------------|--|--|
| Data Centre where server hosted                       | NIC HQ DATA CENTER              |  |  |
| Functionality of the Server                           | Mail Relay Server               |  |  |
| OS of the Server                                      | LINUX                           |  |  |
| ІР Туре   | Public Only                     |  |  |
| Public IP   | 164.100.14.95 <b>Private IP</b> |  |  |
| URL of the application hosted on<br>above IP (if any) |                                 |  |  |

#### **RULES:**

Public IP rule for access from Outside Systems to Server Error! Filename not specified.

| From                           | То            | Services | URL of<br>the<br>server<br>to be<br>visited | Ports | Reason<br>for<br>opening<br>port | Protocol |
|--------------------------------|---------------|----------|---|-------|----------------------------------|----------|
| APPLICATION<br>SERVER IP       | 164.100.14.95 | SMTPS    |   | 465   | Sending<br>mail                  | ТСР      |
| Duration For Which above Rules |               |          |   |       |                                  |          |

are Needed Always

Security strength of Server/ Web Site / Application

| Server scanned for<br>Vulnerabilities of Main Server | Not Applicable | Reason CISCO IRONPORT<br>APPLIANCE       |
|--|----------------|--|
| Is NIC managed antivirus installed ?                 | Not Applicable | Reason Routers, Appliances, devices etc. |
| Application Security Audit                           | Not Applicable | Reason CISCO IRONPORT<br>APPLIANCE       |
| Emergency Hosting                                    | Not Hosted     |  |

| Temporary Hosting            | Not Asked           |  |
|------------------------------|---------------------|--|
| Server Administrator Details |                     |  |
| Name                         | Rajesh Singh        |  |
| Email                        | rajesh.singh@nic.in |  |
| Telephone                    | 24305579            |  |
| Intercom                     | 5579                |  |

Once the firewall request get approved, please check relay connectivity from allowed IP using telnet command. **#telnet relay.emailgov.in 465** 



#### Things You'll Need for using Relay Server:

- 1. **Relay Server Request Form**: Check for any error and incomplete data. Dully filled Relay Server Request form along with seal and sign of NIC coordinator should be submitted for needful action.
- Valid Security Audit Certificate of the application from any empanel-led organizations by CERT-In. http://cert-in.org.in/s2cMainServlet?pageid=CERTEMPANEL
- Firewall Request: Firewall request has to be filled by respective NIC coordinator for RELAY access through URL <u>https://farps.nic.in/</u> as described in Sample Firewall request.

#### Please note: <u>FOLLOWING CHECKS SHOULD BE DONE PRIOR TO</u> <u>CONFIGURING YOUR APPICATION FOR RELAY MAILS.</u>

Once the firewall request and Relay Server Request Form get approved, please check relay connectivity from allowed IP using telnet command.

NIC/NKN Network telnet relay.nic.in 25 telnet 164.100.14.95 25 Ping relay.nic.in

Outside NIC/NKN Network telnet relay.emailgov.in 465 telnet 164.100.14.95 465 Ping relay.emailgov.in

#### **Troubleshooting:**

**1.** Checking connectivity from the application server to relay server.

Run the command as shown below from the application server.

| C:\Users\inoc>ping relay.nic.in   |  |
|---|--|
| Pinging relay.nic.in [164.100.14.95] with 32 bytes of data:<br>Reply from 164.100.14.95: bytes=32 time=1ms TTL=122<br>Reply from 164.100.14.95: bytes=32 time=2ms TTL=122<br>Reply from 164.100.14.95: bytes=32 time=2ms TTL=122<br>Reply from 164.100.14.95: bytes=32 time=2ms TTL=122 |  |
| Ping statistics for 164.100.14.95:<br>Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),<br>Approximate round trip times in milli-seconds:<br>Minimum = 1ms, Maximum = 2ms, Average = 1ms<br>C:\Users\inoc\   |  |

Hostname **relay.nic.in or relay.emailgov.in** should resolve to an IP. As in this case it is showing in RED bracket [164.100.14.95]

If hostname is not resolving, then please check your DNS server entry and use nslookup for ensuring that domain is resolved.

If ping is not working or showing Connection timed out, please check with your network administrator.

#### 2. Checking accessibility of port 25 or 465.

Run the command from the application server as shown below -





The error **"554 Your access to this mail system has been rejected due to the sending** MTA's poor reputation. If you believe that this failure is in error, please contact the intended recipient via alternate means" shows that connectivity to relay.nic.in server on port 25 is OK. But it means:

- 1. The request to the relay server is not coming from the allowed IP address. You are requested to check if your IP is mapped with any Public/Private IP and the request is going through the Public/Private IP only.
- Your IP is not allowed on relay, please provide duly filled relay request form along with Security Audit Certificate through your NIC Coordinator to <u>support@gov.in</u>.

#### 3. Checking mail delivery through verbose mode:

Check mail delivery through verbose mode, once banner as shown below comes-

| <u>C:\.</u>  | Telnet relay.nic.in  |  |
|--|--|--|
| 220 relayin.nic.ir   | ESMTP  |  |
|  |  |  |
|  |  |  |
| G8%.   | Telnet relay.nic.in  | 7 <u>~~</u>                            |
| 228 relayininic.in<br>helo nic.in<br>250 relayin.nic.in<br>mail from: testidu<br>250 sender <testid<br>250 recipient <sup<br>data<br/>354 go ahead<br/>subject: TEST MAII<br/>This is Test Mail</sup<br></testid<br> | ESMIP<br>gov.in<br>(gov.in> ok<br>jov.in<br>oport@gov.in> ok<br>from RELAY | ••••• •••••••••••••••••••••••••••••••• |
| 250 ok: Message 3<br>-   | 63043170 accepted  |  |

# HOW TO SEND EMAIL USING TELNET

TIP: We use the domain GOV.IN as an example. Be sure to replace with your own domain.

- 1. Open your command prompt.
- 2. Now, connect with telnet using the following command:

#### telnet example.com 25

3. Type ehlo gov.in. Some servers also accept helo in place of ehlo.

ehlo gov.in

4. Type mail from: username@gov.in:

```
mail from: username@gov.in
```

Type rcpt to: abc.xyz@gov.in abcd.wxyz@gov.in (replace with your actual recipient name):

rcpt to: abc.xyz@gov.in, abcd.wxyz@gov.in

6. To write the message - type data, followed by your subject and message. To end the message, put a period on a line by itself and press enter:

data Subject: My Telnet Test Email Hello, This is an email sent by using the telnet command. Regards,

7. Type quit to exit telnet.

If above checks are successful and the IP has been allowed by Messaging Division to relay, even then if your application is not able to send the mails, please check your application code.

