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## Scenario Setup

### UCCE

1. Change Wait nodes in UCCE EIM script to be 3600 seconds

### Services Server

1. Enable McAfee Access Protection for mass-mailing worms, blocking port 25.

### Agent PC

1. Send an email from customer@eim.lab to support@eim.lab
2. Log in as Integrated Agent "goofy" and go ready for other channels
3. "Send and Complete" a reply to the customer

## Problem Statement

Customer does not receive reply sent by agent.

### What is the activity\_status/activity\_sub\_status and activity\_type/activity\_sub\_type in the eGActiveDB?

Check the eGActiveDB for anything immediately visible.

```
select * from egpl_casemgmt_activity order by activity_id desc
```

|    | ACTIVITY_ID | CASE_ID | DEPARTMENT_ID | ACTIVITY_MODE | ACTIVITY_TYPE | ACTIVITY_SUB_TYPE | ACTIVITY_STATUS | ACTIVITY_SUB_STATUS | ACTIVITY_PRIORITY | WHEN_CREATED           |
|----|-------------|---------|---------------|---------------|---------------|-------------------|-----------------|---------------------|-------------------|------------------------|
| 1  | 1046        | 1023    | 999           | 200           | 1             | 6                 | 7000            | 7100                | NULL              | 2011-06-22 10:01:56.40 |
| 2  | 1045        | 1023    | 999           | 200           | 1             | 6                 | 7000            | 7100                | NULL              | 2011-06-22 10:01:48.99 |
| 3  | 1044        | 1024    | 999           | 200           | 1             | 10                | 7000            | 7100                | NULL              | 2011-06-22 09:56:50.04 |
| 4  | 1043        | 1023    | 999           | 200           | 1             | 6                 | 7000            | 7100                | NULL              | 2011-06-22 09:56:30.23 |
| 5  | 1042        | 1024    | 999           | 100           | 1             | 1                 | 4000            | 4105                | NULL              | 2011-06-22 09:56:28.17 |
| 6  | 1041        | 1023    | 999           | 200           | 1             | 6                 | 7000            | 7100                | NULL              | 2011-06-22 09:49:18.51 |
| 7  | 1040        | 1023    | 999           | 200           | 1             | 6                 | 9000            | 9100                | NULL              | 2011-06-22 08:35:57.52 |
| 8  | 1039        | 1023    | 999           | 200           | 1             | 6                 | 9000            | 9100                | NULL              | 2011-06-22 08:30:32.49 |
| 9  | 1038        | 1023    | 999           | 200           | 1             | 6                 | 9000            | 9100                | NULL              | 2011-06-22 08:26:14.56 |
| 10 | 1037        | 1023    | 999           | 200           | 1             | 6                 | 9000            | 9100                | NULL              | 2011-06-22 08:26:09.38 |
| 11 | 1036        | 1023    | 999           | 200           | 1             | 6                 | 9000            | 9100                | NULL              | 2011-06-22 08:23:37.58 |
| 12 | 1035        | 1023    | 999           | 200           | 1             | 6                 | 9000            | 9100                | NULL              | 2011-06-22 08:23:34.57 |
| 13 | 1034        | 1023    | 999           | 200           | 1             | 6                 | 9000            | 9100                | NULL              | 2011-06-22 08:23:31.53 |
| 14 | 1033        | 1023    | 999           | 200           | 1             | 6                 | 9000            | 9100                | NULL              | 2011-06-22 08:23:27.78 |

## Agent\_Mails\_Not\_Being\_Sent

In the above screenshot we can see a mixture of email activity\_sub\_type:

- activity\_sub\_type 1 = Inbound email (from customer to system)
- activity\_sub\_type 6 = Reply email (from agent to customer)
- activity\_sub\_type 10 = Auto-response email (from system to customer)

As well as a mixture of activity\_status:

- activity\_status 4000 = Assignment
- activity\_status 7000 = Pre-Completion
- activity\_status 9000 = Completed

From this we can conclude that emails were sending up until a certain point in time, but inbound emails are still being retrieved.

### What process is responsible for sending emails?

Dispatcher process "dispatches" emails, so this would be a great place to start.

With INFO level logs, we can search by Activity ID. With ERROR level, activity IDs will not show up.

We can see from the below log that our Dispatcher is having trouble connecting to the SMTP server, and that is why the mail has not been sent.

```
2011-06-22 13:47:49.936 GMT-0400 <@> INFO <@> [77:DxInstance id : 998] <@> ProcessId:4384 <@> PID:
2011-06-22 13:47:49.982 GMT-0400 <@> INFO <@> [77:DxInstance id : 998] <@> ProcessId:4384 <@> PID:
2011-06-22 13:47:49.982 GMT-0400 <@> INFO <@> [77:DxInstance id : 998] <@> ProcessId:4384 <@> PID:
2011-06-22 13:47:50.123 GMT-0400 <@> ERROR <@> [77:DxInstance id : 998] <@> ProcessId:4384 <@> PID:
javax.mail.MessagingException: Could not connect to SMTP host: 10.77.30.18, port: 25;
  nested exception is:
    java.net.SocketException: Software caused connection abort: connect
      at com.sun.mail.smtp.SMTPTransport.openServer (SMTPTransport.java:1391)
      at com.sun.mail.smtp.SMTPTransport.protocolConnect (SMTPTransport.java:412)
      at javax.mail.Service.connect (Service.java:288)
      at javax.mail.Service.connect (Service.java:169)
      at com.egain.platform.module.dispatcher.Mailer.connectToServer (Mailer.java:289)
      at com.egain.platform.module.dispatcher.Mailer.connectToServer (Mailer.java:251)
      at com.egain.platform.module.dispatcher.service.DxProcess.dispatchEmail (DxProcess.java:118)
      at com.egain.platform.module.dispatcher.service.DxProcess.runDispatcher (DxProcess.java:838)
      at com.egain.platform.module.dispatcher.service.DxInstance.startInstance (DxInstance.java:1
      at com.egain.platform.framework.dsm.common.ThreadPool$PoolThread.run (ThreadPool.java:112)
Caused by: java.net.SocketException: Software caused connection abort: connect
  at java.net.PlainSocketImpl.socketConnect (Native Method)
  at java.net.PlainSocketImpl.doConnect (PlainSocketImpl.java:333)
  at java.net.PlainSocketImpl.connectToAddress (PlainSocketImpl.java:195)
  at java.net.PlainSocketImpl.connect (PlainSocketImpl.java:182)
  at java.net.SocksSocketImpl.connect (SocksSocketImpl.java:367)
  at java.net.Socket.connect (Socket.java:524)
  at java.net.Socket.connect (Socket.java:474)
  at com.sun.mail.util.SocketFetcher.createSocket (SocketFetcher.java:233)
  at com.sun.mail.util.SocketFetcher.getSocket (SocketFetcher.java:189)
  at com.sun.mail.smtp.SMTPTransport.openServer (SMTPTransport.java:1359)
  ... 9 more
2011-06-22 13:47:50.123 GMT-0400 <@> ERROR <@> [77:DxInstance id : 998] <@> ProcessId:4384 <@> PID:
com.egain.platform.module.dispatcher.exception.FailedConnectToServerException: Could not connect t
  at com.egain.platform.module.dispatcher.Mailer.connectToServer (Mailer.java:303)
  at com.egain.platform.module.dispatcher.Mailer.connectToServer (Mailer.java:251)
  at com.egain.platform.module.dispatcher.service.DxProcess.dispatchEmail (DxProcess.java:118
```

What is the activity\_status/activity\_sub\_status and activity\_type/activity\_sub\_type in the eGActiveDB?

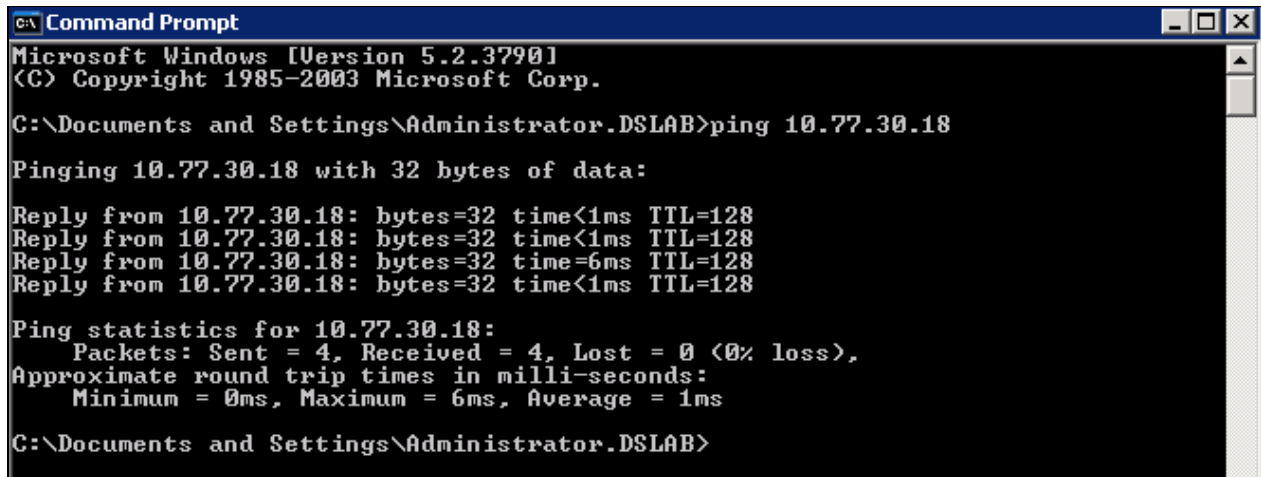
## Agent\_Mails\_Not\_Being\_Sent

```
at com.egain.platform.module.dispatcher.service.DxProcess.runDispatcher(DxProcess.java:838)
at com.egain.platform.module.dispatcher.service.DxInstance.startInstance(DxInstance.java:1
at com.egain.platform.framework.dsm.common.ThreadPool$PoolThread.run(ThreadPool.java:112)
2011-06-22 13:47:50.123 GMT-0400 <@> INFO <@> [77:DxInstance id : 998] <@> ProcessId:4384 <@> PID:
com.egain.platform.module.dispatcher.exception.FailedConnectToServerException: Could not connect t
```

## Why can't Dispatcher connect to the SMTP server?

### Ping

Let's first try the obvious: can you ping the SMTP server? Since the Dispatcher process runs on the Services Server, run the ping from there.



```
C:\> Command Prompt
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\Administrator.DSLAB>ping 10.77.30.18

Pinging 10.77.30.18 with 32 bytes of data:

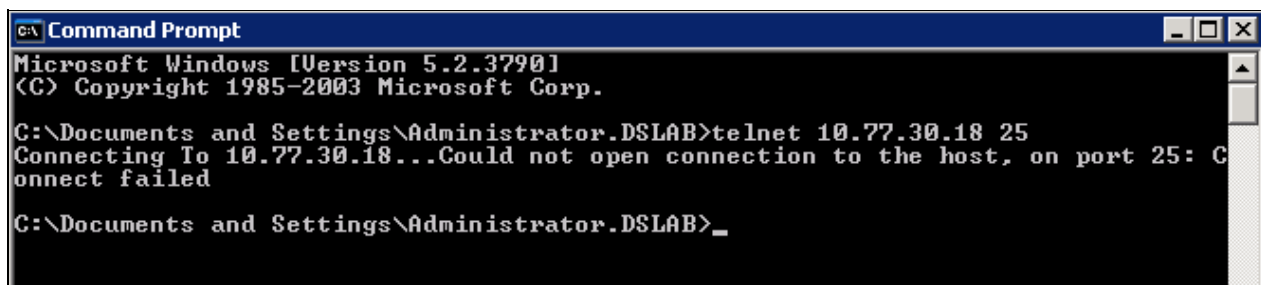
Reply from 10.77.30.18: bytes=32 time<1ms TTL=128
Reply from 10.77.30.18: bytes=32 time<1ms TTL=128
Reply from 10.77.30.18: bytes=32 time=6ms TTL=128
Reply from 10.77.30.18: bytes=32 time<1ms TTL=128

Ping statistics for 10.77.30.18:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 6ms, Average = 1ms

C:\Documents and Settings\Administrator.DSLAB>
```

### Telnet 25

So basic network connectivity is fine. What about port 25? Try to telnet to port 25 of the SMTP server from the Services Server.




```
C:\> Command Prompt
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\Administrator.DSLAB>telnet 10.77.30.18 25
Connecting To 10.77.30.18...Could not open connection to the host, on port 25: C
onnect failed

C:\Documents and Settings\Administrator.DSLAB>_
```

### Telnet 80

Something is wrong with port 25. Try another port - in this case, port 80 works.



```
C:\> Telnet 10.77.30.18
_
```

What process is responsible for sending emails?

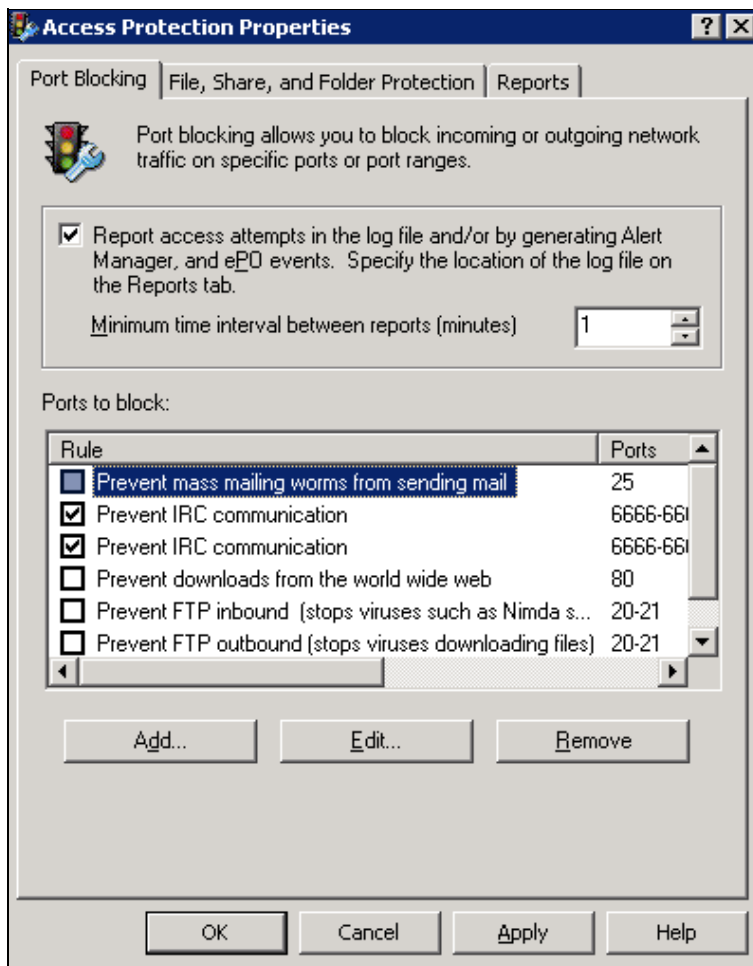
## Why is the port being blocked?

One thing we've all seen at one point or another is TCP ports getting stuck. Try restarting the Dispatcher process. Does it restart successfully or produce an error? If an error occurs, a system reboot would be a wise next step.

But more common with SMTP server errors when network connectivity is fine is the virus scan. McAfee VirusScan is running on our Services Server with Access Protection. Most VirusScan's should have a log, and if we pull ours up we can see:

|           |            |                               |           |                    |
|-----------|------------|-------------------------------|-----------|--------------------|
| 6/22/2011 | 1:48:20 PM | Blocked by port blocking rule | javaw.exe | Prevent mass maili |
| 6/22/2011 | 1:49:20 PM | Blocked by port blocking rule | javaw.exe | Prevent mass maili |
| 6/22/2011 | 1:50:20 PM | Blocked by port blocking rule | javaw.exe | Prevent mass maili |
| 6/22/2011 | 1:51:20 PM | Blocked by port blocking rule | javaw.exe | Prevent mass maili |

Bingo! Let's disable the port blocking rule "Prevent mass mailing worms from sending mail" on the Services Server so the Dispatcher process can do it's thing.



## Resolution

Virus port-blocking protection can actually hinder the functionality of EIM. We learned how to verify port status and diagnose a problem with McAfee VirusScan.

## Agent\_Mails\_Not\_Being\_Sent

One good takeaway from this scenario is the importance of the Virus Scan settings in the 4.3 Deployments Guide. While you're in the Virus Scan properties, ensure that they are set correctly on all servers.

### On the File, Messaging, Services, Application and Web Servers

► Follow the instructions for your virus scanning software to exclude the following folders and file types:

| Item                     | Exclude Subfolders?              | Execute permissions |
|--------------------------|----------------------------------|---------------------|
| Windows File Protection  | --                               | Read, Write         |
| All files of type LOG    | --                               | Read, Write         |
| Pagefile.sys             | No                               | Read, Write         |
| <i>Drive\Cisco_home\</i> | Yes [other than <b>Storage</b> ] | Read, Write         |
| <i>Drive\jdk*\</i>       | Yes                              | Read, Write         |
| <i>Drive\JBoss*\</i>     | Yes                              | Read, Write         |
| *.rll                    | No                               | Read, Write         |

### On the Database Servers

► Follow the instructions for your virus scanning software to exclude the following folders and file types:

| Item                          | Exclude Subfolders? | Permissions |
|-------------------------------|---------------------|-------------|
| Windows File Protection       | --                  | Read, Write |
| All files of type LOG, if any | --                  | Read, Write |
| Pagefile.sys                  | No                  | Read, Write |
| <i>Drive\Path_to_datafile</i> | Yes                 | Read, Write |
| *.mdf                         | No                  | Read, Write |
| *.ldf                         | No                  | Read, Write |
| *.ndf                         | No                  | Read, Write |
| *.dat                         | No                  | Read, Write |
| *.rll                         | No                  | Read, Write |