Health Monitors for Exchange 2010

smp, 2012-28-08

I was recently asked to develop health monitors on my 10.2.4HF3 LTMs for our Exchange 2010 environment. Two of the three monitors were a bit challenging, so I wanted to share what I developed. The monitors have been sanitized to protect our environment - modify them to fit yours.

*** Active Sync ***

This monitor was challenging me, until I stumbled across this statement for versions 10.2.x and 11.x in SOL2167: "When Basic Authentication is enabled by configuring a User Name and Password in the monitor definition, the system inserts the Authorization header and a terminating double CR/LF sequence (0x0d 0x0a 0x0d 0x0a) after the last character in the Send String."

Once I read that, I removed my standard trailing "\r\n\r\n" sequence at the end of the Send String, and the monitor immediately started working. It saved me from having to use an External monitor. You will need to insert a username, password, and host header value in the send string to fit your environment:

```
 1: ltm monitor https active-sync {
 2: cipherlist "DEFAULT:+SHA:+3DES:+kEDH"
 3: compatibility "enabled"
 4: defaults-from https
 5: interval 10
 6: password "<password>"
 7: recv "MS-ASProtocolCommands: Sync,SendMail,SmartForward,SmartReply,GetAttachment,GetHierarchy,CreateColle
 8: send "OPTIONS /Microsoft-Server-ActiveSync/ HTTP/1.1\r\nHost: <host header value>"
 9: time-until-up 0
10: timeout 31
```

*** Outlook Web Access ***

This monitor was straightforward. You will need to replace the FQDN in both the URI and the Host: header in the Send String:

```
 1: ltm monitor https outlook-web-access {
 2: cipherlist "DEFAULT:+SHA:+3DES:+kEDH"
 3: compatibility "enabled"
 4: defaults-from https
 5: interval 10
 6: recv "OutlookSession="
 7: send "GET /owa/auth/logon.aspx?url=https://<hostname>/owa/&reason=0 HTTP/1.1\r\nUser-Agent: Mozilla/4.0\r
 8: time-until-up 0
 9: timeout 31
10: }
```

*** Outlook Anywhere ***

This monitor was complicated enough that it could not be done by any of the built-in monitor types, so I had to run this with CURL as an External monitor. Here is the LTM monitor definition:

```
 1: ltm monitor external outlook-anywhere {
 2: defaults-from external
 3: interval 10
 4: run "outlook-anywhere.sh"
 5: time-until-up 0
 6: timeout 31
 7: user-defined debug "0"
```

```
   8: user-defined debugfile "/shared/tmp/outloo-anywhere_debug.log"
   9: user-defined receivestring "200 Success"
  10: user-defined username "<domain>\<username>"
  11: }
```

In order to get this monitor to run in your environment you must update the username variable. In our environment, I had to precede the username with our domain name in order for it to return successful. The outlook-anywhere.sh script looks like this. It needs to be placed in /config/monitors with execute permission:

```
   1: #!/bin/bash
   2: #
   3: # Exchange 2010 Outlook Anywhere external health monitor
   4: #
   5: # Syntax: /config/monitors/outlook-anywhere.sh
   6: #
   7: # Author:
   8: # Date:
   9: #
  10: # Important Notes:
```

- In order to get this script to run in your environment you must update the PASSWORD variable, and insert your **<hostname>** into Host: header and the URI string in all three CURL command references.
- To execute the script manually, you must define the variables that are normally passed by the LTM by uncommenting them near the top of the script. If you do uncomment these variables, make sure you comment them out when you are finished or they will override the variables in the Monitor definition:

    USERNAME

    RECEIVESTRING

    DEBUG (if desired)

    DEBUGFILE (if DEBUG desired)