Invalid DNS slows Zend Server UI on IBM i

Issue

Invalid entries in the DNS settings for the IBM i can cause severe performance issues notable in the slow display of Zend Server UI, and also in the slow start up of the IBM i Apache instances and difficulty using the IBM i web based Navigator.

Note: Partially blank Zend Server UI pages can also be helped by setting longer timeouts.

Zend Server UI pages are partially blank on IBM i

Environment

Any version of Zend Server for IBM i, running on any supported version of IBM i OS

Resolution

The Domain Name Server (DNS) contains a directory of domain names (example zend.com) and their associated IP addresses (example 162.209.30.134). Typically you will have two or more DNS to provide some redundancy. You IT department can provide you with valid DNS IP addresses that should be used from within your network. These DNS IP addresses are stored on your IBM i using the CHGTCPDMN command or a menu option from CFGTCP.

The first step is to verify that the DNS entries on your IBM i are valid for your IBM i. Please log in to a 5250 session using a *SECOFR class user profile. From the command line:

```
cfgtcp
```

This should bring up the "Configure TCP/IP" menu.

Use option "12. Change TCP/IP domain information". Page down to see the "Domain name server:" prompt. Make a note of each of the Internet address entries. These are the IP addresses for the DNS. Use F12 to return to the menu.

On the command line, attempt to ping each DNS IP address. For example, if the address was 208.67.222.222, you could ping it with this command:

```
ping '208.67.222.222'
```

Note the IP address is in single quotes. Look at the message line on your display to see the results of the ping. Position the cursor on the message line so you can scroll through the messages using the page down and page up buttons. If the ping is successful, you will see a "Verifying connection" message, then 5 "Ping reply" messages that tell how long each of the 5 replies took to receive, in milliseconds. Then a message about "Round-trip min/avg /max" and finally a message indicating "5 of 5 successful". If the ping is valid, the DNS server is reachable from your IBM i, and this is probably not your issue.

If the ping fails you will see "No response messages" and the final message will show "0 of 5 successful".

If the ping fails for any IP Address you have in the "Change TCP/IP Domain (CHGTCPDMN)" display, use the CHGTCPDMN command or option "12. Change TCP/IP domain information" to remove it. You can then restart Zend Server, and should see better performance in the Zend Server UI. You can also restart the ADMIN instance of Apache to see if this improves the performance of Navigator in the web (see link to IBM SUpport article, below).

You should have valid DNS entries on your IBM i, so if you discover bad entries, please work with your IT department to verify that you have the correct IP addresses, and that there is nothing in the network that is blocking the IBM i from accessing the DNS. When you have it all set up, please test again with the ping command to make sure that the IBM i can access the IP addresses.

To learn more, and to learn how to restart the ADMIN instance of Apache, please review this article from IBM Support:

IBM Navigator for i, Navigation Missing or Unresponsive