GTM, Know Thyself

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GTM services depend on the configuration of a listener: A network address that allows GTM to "listen" on the network for traffic it is responsible for. That address must then be used elsewhere in the configuration to define the local GTM system to itself.

These configuration steps are often overlooked at first. Customers sometimes report immediately after setting up their GTM systems that they don't seem to be answering BIND queries as expected. Other customers notice other symptoms first, as this poster did:

I probably forgot something simple… but my monitors for pool members are failing like this:

```
Offline (Enabled) - Pool pool1 member website1: Monitor http from gtmd : no reply from big3d: timed o
```

big3d is up and running, and the server is a generic host. From command line I can do GET / just fine:

```
[root@gtm1:Active] config # telnet 10.1.3.3 80
 Trying 10.1.3.3...
 Connected to 10.1.3.3.
 Escape character is '^]'.
 GET /

 It works!

Connection closed by foreign host.
```

In both cases, the culprit was the same: They had forgotten to define the listener and use it to define the GTM object to itself.

The GTM Listener and the GTM Object

One of the most crucial configuration items for a GTM deployment is defining a listener. GTM will "listen" on the network for traffic sent to that address. You *must* define a listener for BIND resolution and other services to operate, and the recommended best practice is to define the listener using a self-IP address assigned to the GTM.

After defining the listener, add the current GTM you are configuring to its own configuration (even if you don't have any other GTM systems to add to the configuration) to establish its data center location and provide an object to control local big3d agent settings.

It is possible to use the GTM management IP address when defining the IP addresses for the server address list. For remote device monitoring to succeed, however, you must use the GTM Self IP addresses, not management IP addresses. If you configure the GTM object using the management IP addresses instead, GTM will not be able to monitor virtual servers and other remote objects, and will mark all objects red/unavailable.

Configuring a listener

1. Browse to Global Traffic -> Listeners.

2. Click "Create"

3. In the Destination box, type the self IP address on which the Global Traffic Manager will provide services.

4. From the VLAN Traffic list, select the VLANs on which you want GTM to listen for traffic to that address.

5. Click "Finished"

Once you define a listener, GTM is ready to resolve names for both wide IP records and BIND resource records. To test GTM name resolution, specify the listener IP address as the destination for DNS queries.

Configuring the local GTM object

1. Browse to Global Traffic -> Servers.

2. Click "Create"

3. In the Name box, type a unique name for the GTM system (not necessarily the DNS name).

4. From the Product list, select BIG-IP System (Single).

5. In the Address dialog, enter the local GTM self IP address that was defined above as a listener.

6. Configure the other server settings as appropriate for your deployment, or leave at default values.

7. Click "Create"

Once you define the GTM object using the appropriate listener address, you will be able to monitor remote devices. To test remote object monitoring, configure a monitor for a known healthy object and confirm that GTM marks it green/UP.

Related Documentation

"Working with Listeners" from the GTM Configuration Guide

SOL5664: BIG-IP GTM server objects, virtual servers, and pool members incorrectly marked red (unavailable)

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