Troubleshoot DNS issues with the k8s cluster

Wednesday, 15 June 2022 4:10 PM

Purpose

When setting up a cluster, some errors are to do with resolver errors that need a method to troubleshoot.

Method

Spinning up a debug pod in the right namespace of our cluster.

Journal

Turn on <u>development mode</u> to increase the verboseness of our logs

update values yaml and apply with helm

```
application:
bootstrap:
    organization:
    name: c
    email: admin@
    password: "<redacted>"
    environment: "Development" # Environment (e.g Production or Development)
```

note, you may need to restart the pods manually

```
kubectl -n cluedin delete pod -l role=main
kubectl -n cluedin delete pod -l role=processing
kubectl -n cluedin delete pod -l role=crawling
```

Note the resolver error in our server logs:

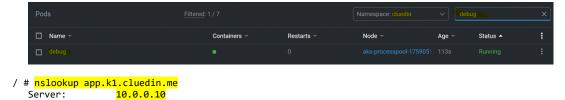
---> System.IO.IOException: IDX20804: Unable to retrieve document from: 'https://app.redacted-real-world-example.com/auth/.well-known/openid-configuration'.

- ---> System.Net.Http.HttpRequestException: Name does not resolve
- ---> System.Net.Sockets.SocketException (0xFFFDFFFF): Name does not resolve at System.Net.Http.ConnectHelper.ConnectAsync(String host, Int32 port, CancellationToken cancellationToken)

So, if you run a debug pod in your cluedin namespace, and run the nslookup command you can troubleshoot why your DNS server is not able to resolve app.redacted-real-world-example.com.

Example session for my k1 cluster:

```
kubectl -n cluedin run -i --tty --rm debug --image=alpine --
restart=Never
```



Address: 10.0.0.10:53

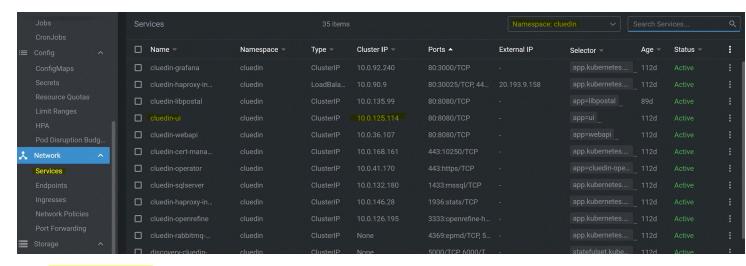
Non-authoritative answer:

Non-authoritative answer:

Name: app.k1.cluedin.me

Address: 20.193.9.158

Also, your DNS should return the correct addresses for the services, here's an example from my cluster:



/ # nslookup cluedin-ui

Server: 10.0.0.10 Address: 10.0.0.10:53

Name: cluedin-ui.cluedin.svc.cluster.local

Address: 10.0.125.114

note that the IP matches our result in lens