

TS015731540 - Pod taking higher utilization

Case history

12 May 2024

04:19 AM **Venkat_S** (IBM) changed Status from **Closed by IBM** to **Closed - Archived**.

12 Apr 2024

04:17 AM **Venkat_S** (IBM) changed Status from **Awaiting your feedback** to **Closed by IBM**.

04:17 AM **Venkat_S** (IBM)

Thank you for working with us. This case has now been closed due to inactivity. I hope that the suggestions made were helpful, and that the issue reported is no longer occurring. If you determine this issue needs additional attention, you can reopen this case within the next 30 days.

If you receive a survey from IBM after this case closes, please take a few minutes to respond. Your candid feedback is extremely valuable as we strive to deliver the best technical support possible and exceed your expectations.

Thank you for using IBM

8 Apr 2024

03:58 AM **Venkat_S** (IBM)

Hello,

We have sent you couple of reminders to get status of the case but we did not get response. We would like to get status of the case. If we will not receive response by 04/12/2024 we will assume your issue has been resolved or you no longer wish to pursue the issue and proceed to close the case. If the case closed you can still reopen with in 30 days using IBM support portal <https://www.ibm.com/mysupport> or by calling 1-800-IBM-SERV.

ACTION PLAN: If no response by 04/12/2024 will proceed to close the case.

3 Apr 2024

04:33 AM **Venkat_S** (IBM)

Hello,

This is a second follow up to check status of the case. Is there anything else we can assist you with this case? Can you give us consent to close the case if no further concerns.

29 Mar 2024

04:23 AM **Venkat_S** (IBM)

Hello,

Is there anything else we can assist you with this case? Can you give us consent to close the case if no further concerns.

26 Mar 2024

04:21 AM **Venkat_S** (IBM)

Hello,

Please see below details to upgrade liberty operator upgrade which we shared the same on 3/19/24. If you encounter any issue on Liberty operator upgrade, please open a separate case to get assistance. As per process we handle one issue per case. This case opened to address traffic distribution issue which has been resolved. Hence, please give us consent to close this case.

Review the 'Operator upgrade from 0.8.x' documentation at

<https://github.com/OpenLiberty/open-liberty-operator/blob/main/doc/user-guide-v1.adoc#operator-upgrade-from-08x>

The major release of Open Liberty Operator 1.x includes behavioral changes out-of-the-box for enhanced security. The above doc links to information on the new functionalities and changes. In particular: **manage TLS, network policy and security context**

Support case history



Assess whether these out-of-the-box behaviours would **impact** your applications. If so, you may need to update the OpenLibertyApplication CR after upgrading the Operator. It can only be done after upgrading the Operator since the new configuration options (i.e. `.spec.manageTLS`, `.spec.networkPolicy`, `.spec.securityContext`) will only be available with the new version.

The OpenLibertyApplication CR with `apiVersion: apps.openliberty.io/v1beta2` can continue to be used with Open Liberty Operator 1.x. The new version of the Operator will take over the responsibility to manage the instances but with the new out-of-the-box behaviour changes mentioned above.

During the upgrade, existing application pods wouldn't be taken down all at once and should roll out incrementally but other items like network policy or changes to the Route configuration could impact the application or its availability.

Hence, we strongly suggest attempting and validating the upgrade in a **non-production environment** first.

If multiple instances of the Open Liberty Operator are deployed in the same cluster (in different namespaces), it's possible to upgrade some of them to 1.x while the others remain on 0.8.x. But note that once 1.x is installed in any of the namespaces, it won't be possible to newly install 0.8.x into the cluster (existing ones will continue to work, but can't install new ones).

On another note, tracking containerized Liberty instances with **IBM License Service** is a legal requirement as per the IBM WebSphere license agreement. In the OpenLibertyApplication CR that was sent previously, I didn't see the licensing annotations. These should be added to the OpenLibertyApplication CR. Alternatively, consider using this as an opportunity to switch to the WebSphere Liberty Operator 1.3.x. It provides all capabilities of Open Liberty Operator 1.3.x, but in addition, it provides the capability to easily track Liberty instances with IBM License Service. More information is documented at

<https://www.ibm.com/docs/en/was-liberty/base?topic=container-tracking-liberty-license-use-in-kubernetes>

04:21 AM Venkat_S (IBM) changed Status from **Waiting for IBM** to **Awaiting your feedback**.

25 Mar 2024

10:47 PM DC Infra Support (Customer)

Hi Venkat,

Can you provide the detail action plan for liberty operator upgrade?

Thank!

10:47 PM DC Infra Support (Customer) changed Status from **Awaiting your feedback** to **Waiting for IBM**.

05:52 AM Venkat_S (IBM)

Hello,

Is there anything else we can assist you with this case? Can you give us consent to close the case if no further concerns.

20 Mar 2024

01:29 AM henryhsu (IBM)

Hi Vaishnavi

-

Thanks for the response.

Since the issue does not occur again now, could we set this case to Severity 2?

01:29 AM henryhsu (IBM) changed Status from **Waiting for IBM** to **Awaiting your feedback**.

01:19 AM DC Infra Support (Customer)

Hi henryhsu

currently it's working fine

We will update you if we facing same issue again

Thanks!

Vaishnavi

01:19 AM DC Infra Support (Customer) changed Status from **Awaiting your feedback** to **Waiting for IBM**.

12:30 AM henryhsu (IBM)

Hello:

-

This is Henry Hsu from the WebSphere support team assisting with this case for my colleague Venkata while he is not available now.

-

I checked the printscreen, it seems the CPU utilization rate is half of the one in your previous printscreen. (0.08 vs 0.17)

Does it meet your expectation ?

12:30 AM henryhsu (IBM) changed Status from **Waiting for IBM** to **Awaiting your feedback**.

19 Mar 2024

10:29 PM DC Infra Support (Customer)

Support case history



Hi Jeanette

After changes pods distributed traffic properly .

Kindly find attachment for your reference

Thanks!

10:29 PM **DC Infra Support** (Customer) changed Status from **Awaiting your feedback** to **Waiting for IBM**.

09:52 PM **Jeanette Daly** (IBM) changed Status from **IBM is working** to **Awaiting your feedback**.

09:52 PM **Jeanette Daly** (IBM)

Hi Vaishnavi,

Thanks. We shall await your further updates.

Please advise if the case severity may be reduced to sev2.

Best Regards. Jeanette Daly, IBM WebSphere Software Support (for Venkata)

09:52 PM **Jeanette Daly** (IBM) changed Status from **Waiting for IBM** to **IBM is working**.

09:42 PM **DC Infra Support** (Customer)

Hi Venkat

Thanks for Update

Vaishnavi

09:42 PM **DC Infra Support** (Customer) changed Status from **Awaiting your feedback** to **Waiting for IBM**.

05:37 PM **Venkat_S** (IBM)

Hello,

We got below update from development team. Please review and perform operator upgrade and let us know the result. Also, let us know the pods traffic distribution after load balancer implementation.

Review the 'Operator upgrade from 0.8.x' documentation at

<https://github.com/OpenLiberty/open-liberty-operator/blob/main/doc/user-guide-v1.adoc#operator-upgrade-from-08x>

The major release of Open Liberty Operator 1.x includes behavioural changes out-of-the-box for enhanced security. The above doc links to information on the new functionalities and changes. In particular: **manage TLS, network policy and security context**

Assess whether these out-of-the-box behaviours would **impact** your applications. If so, you may need to update the OpenLibertyApplication CR after upgrading the Operator. It can only be done after upgrading the Operator since the new configuration options (i.e. `.spec.manageTLS`, `.spec.networkPolicy`, `.spec.securityContext`) will only be available with the new version.

The OpenLibertyApplication CR with `apiVersion: apps.openliberty.io/v1beta2` can continue to be used with Open Liberty Operator 1.x. The new version of the Operator will take over the responsibility to manage the instances but with the new out-of-the-box behaviour changes mentioned above.

During the upgrade, existing application pods wouldn't be taken down all at once and should roll out incrementally but other items like network policy or changes to the Route configuration could impact the application or its availability.

Hence, we strongly suggest attempting and validating the upgrade in a **non-production environment** first.

If multiple instances of the Open Liberty Operator are deployed in the same cluster (in different namespaces), it's possible to upgrade some of them to 1.x while the others remain on 0.8.x. But note that once 1.x is installed in any of the namespaces, it won't be possible to newly install 0.8.x into the cluster (existing ones will continue to work, but can't install new ones).

On another note, tracking containerized Liberty instances with **IBM License Service** is a legal requirement as per the IBM WebSphere license agreement. In the OpenLibertyApplication CR that was sent previously, I didn't see the licensing annotations. These should be added to the OpenLibertyApplication CR. Alternatively, consider using this as an opportunity to switch to the WebSphere Liberty Operator 1.3.x. It provides all capabilities of Open Liberty Operator 1.3.x, but in addition, it provides the capability to easily track Liberty instances with IBM License Service. More information is documented at

<https://www.ibm.com/docs/en/was-liberty/base?topic=container-tracking-liberty-license-use-in-kubernetes>

09:44 AM **Venkat_S** (IBM)

Hi Neha,

Still we are waiting for the update from development team. We will follow up with them and get back to you once we hear back.

09:40 AM **DC Infra Support** (Customer)

Hi Venkat,

Kindly update on this.

Thanks!

Best regards,

Neha

07:28 AM **DC Infra Support** (Customer)

Hi Venkat,

Thanks for the update.

Best regards,

Neha

Support case history



07:23 AM **Venkat_S** (IBM)
Hi Neha,
I have reviewed the access log file, do not see any issue any issue on load balancing. We will get back to you once hear back from development team on liberty operator upgrade options and procedure.

05:09 AM **DC Infra Support** (Customer)
Hi Venkat,
We have find the http_access.log under /opt/ibm/wlp/output/defaultServer/logs/
Kindly find the attachment of logs for all pod.
Thanks!
Best regards,
Neha

04:42 AM **Venkat_S** (IBM)
Hi Neha,
We have engaged development team checking the options on Liberty operator upgrade. As soon as we get update from them we will share with you. You need to check access log on all pods, not only single pod to see whether traffic distributing correctly.

04:30 AM **DC Infra Support** (Customer)
Hi Yoshiki,
We have find the http_access.log under /opt/ibm/wlp/output/defaultServer/logs/
Kindly find the attachment of logs.
Please let us know your availability for arrange the meeting regarding further discussion on operator update.
Thanks!
Best regards,
Neha

04:10 AM **Yoshiki Yamada** (IBM)
Hello team,
Could you tell us what you would like to discuss because my shift was ended and Venkat will take over this case. Based on my understanding, we are taking the action plans below.

- You are monitoring the system if any improvement can be seen with roundrobin policy.
- We are waiting for the response regarding operator update from our development team.
- You are going to check the access log to see if the request is distributed across the pods.

Best regards, Yoshiki

04:05 AM **DC Infra Support** (Customer)
Hi Yoshiki
Please let us know your availability for arrange the meeting
Thanks!

02:55 AM **Yoshiki Yamada** (IBM)
Action Taken: had a web session with the client and set the balancing policy to roundrobin.
Action Plan: the customer is going to monitor the system.
Hello team,
Thank you so much for your time on the call.
I understand that the slowness issue (over 15 seconds) is happening and the expected response time is around 2-3 seconds. And this is happening now.
Regarding the way to confirm if the request is distributed evenly, you can use the configured access log.
You can find http_access.log under /opt/ibm/wlp/output/defaultServer/logs/
currently you specified the log format as follows.
<httpAccessLogging id="accessLogging" logFormat="%h %H %A%B %m %p %q %R}W %s %U"/>
By using the value below, you can also check if such slowness (over 15 seconds) is actually happening inside websphere or not.
%R}W
Service time of the request from the moment the request is received until the first set of bytes of the response is sent - millisecond accuracy, microsecond precision
As I mentioned, I'll check the points below with the liberty operator team.

- How to update the liberty operator. Can we simply select v1.3 in the update channel and set "update approval" to automatic? Currently the update approval is set to Manual.
- When we update the liberty operator, can it cause any service interruption? Should we do the update during the maintenance window?
- Is there any follow-up modification needed after the operator update?

Best regards, Yoshiki

02:04 AM **DC Infra Support** (Customer)

Support case history



Hi Yoshiki
We attached the following command output
oc project apl-prod
oc get olapp msiapp -o yaml > msiapp.yaml
Kindly check
Thanks!

12:39 AM **Yoshiki Yamada** (IBM)

Hello Vaishnavi,
1-. could you share the command output below?
oc project apl-prod
oc get olapp msiapp -o yaml > msiapp.yaml
2-. I'll check this with Liberty operator development team.
3&4-. Since you are using "termination: passthrough" for TLS traffic at route, the route will decide the target pod based on the source ip of the incoming request. Thus, if the network equipment between the client and the route doesn't preserve the client source ip, all requests from the network equipment might be forwarded to a single pod. Based on this hypothesis, we think other type of balancing is worth a try.
You can find the detail instruction how we can set the balancing algorithm.

=====

As per the [OpenShift docs on Route-specific annotations](#) , the other load-balancing algorithms are 'random', 'roundrobin' or 'leastconn'.

We can not make a recommendation as to which value they should choose as it likely depends on the type of application and its traffic patterns.

The chosen value can be set in OpenLibertyApplication CR yaml like this. Replace '<value>' with the actual value.

spec:

route:

annotations:

haproxy.router.openshift.io/balance: <value>

If the OpenLibertyApplication CR is managed directly on the OpenShift cluster, then follow these steps. If the source of the yaml is managed in some GitHub repo (applied via CI/CD pipeline), then modify the source yaml to add route annotation.

In OpenShift UI, go to 'Operators' and then 'Installed Operators'.

Select the application namespace (i.e. apl-prod) from the Project toggle drop-down box.

Locate the Open Liberty Operator and click on OpenLibertyApplication. The list of custom resource will be shown.

Select the application to make the change.

In the yaml, add the route annotation as shown in the sample below. Note that spec and route fields are already present in customer's CR, so the annotation field should be added under '.spec.route'. Replace '<value>' with the actual value.

annotations:

haproxy.router.openshift.io/balance: <value>

=====

regards, Yoshiki

12:07 AM **DC Infra Support** (Customer)

Hi Venkat,

1. below entries is already present in our CR configuration yaml file.

The chosen value can be set in OpenLibertyApplication CR yaml like this. Replace '<value>' with the actual value.

spec:

route:

annotations:

haproxy.router.openshift.io/balance: <value>

2.Can you help in getting details like when Liberty operator was deprecated and to upgrade what is the prerequisites and whether downtime is required, if downtime required then what will be downtime period, like one hour, two hour, three hour etc.

3.How can we change and apply "haproxy.router.openshift.io/balance" and will this solution solve load-balancing issues between pods ?

4."haproxy.router.openshift.io/balance" where to set this parameters and how.

Thanks

Vaishnavi

We need to update

18 Mar 2024

11:44 PM **Yoshiki Yamada** (IBM)

Dear Customer,

Support case history



Are you observing any noticeable business impact now? Could you describe how you are observing the issue now? Based on the OpenLiberty CRD, the application is configured like this.

```
autoscaling:
  maxReplicas: 5
  minReplicas: 1
  targetCPUUtilizationPercentage: 80
```

But it seems only 3 pods are running and it means the 3 pods are enough to handle the current traffic. We have received the liberty dump file yesterday, but did you capture the data while the issue was actually happening? If the issue is intermittent, we would like you to capture the data while the issue is actually happening.

Best regards, Yoshiki

11:38 PM **DC Infra Support** (Customer)

Hi Team

we shared the output of command

Kindly check

1. Could you run the command below several times in apl-prod?

oc adm top pod

output:

msiapp-57c6c6899-69tbr 434m 535Mi

msiapp-57c6c6899-n6vr9 75m 342Mi

msiapp-57c6c6899-sdv5f 503m 422Mi

Thanks!

11:20 PM **Yoshiki Yamada** (IBM)

Dear Customer,

Our development team is based in US timezone and they are not currently available now. Based on the case history, they have already provided the procedure which adjusts the load balancing algorithm. Have you followed the steps and confirmed if any other value is helpful?

I also read the case history and noticed the explanation below.

Due to this client seeing performance issue, each request taking 16ms average response time

I think several tens of milliseconds is usually not sensible or recognizable. Could you explain how 16ms response time is impacting your business? Other than the higher value of cpu and memory usage, how are you observing the issue? And I'd like to see the current status. Could you run the command below several times in apl-prod?

oc adm top pod

And I also noticed the following comment.

Client think other two pods not taking the application traffic and only one pod taking traffic

It seems you have configured the http access logging in liberty. Thus, I think you can check if incoming request is distributing across the replicas by tailing the access log of liberty. Have you confirmed this point?

regards, Yoshiki

10:50 PM **DC Infra Support** (Customer)

Hi Team

Please let us know your availability for arrange the meeting for this issue

Thanks!

02:29 PM **Venkat_S** (IBM)

Hello,

Here is more detailed steps to implement the change recommended by development team. Kindly try the suggestion and let us know the result.

=====

As per the [OpenShift docs on Route-specific annotations](#), the other load-balancing algorithms are 'random', 'roundrobin' or 'leastconn'.

We can not make a recommendation as to which value they should choose as it likely depends on the type of application and its traffic patterns.

The chosen value can be set in OpenLibertyApplication CR yaml like this. Replace '<value>' with the actual value.

spec:

route:

annotations:

haproxy.router.openshift.io/balance: <value>

Support case history



If the OpenLibertyApplication CR is managed directly on the OpenShift cluster, then follow these steps. If the source of the yaml is managed in some GitHub repo (applied via CI/CD pipeline), then modify the source yaml to add route annotation.

In OpenShift UI, go to 'Operators' and then 'Installed Operators'.

Select the application namespace (i.e. apl-prod) from the Project toggle drop-down box.

Locate the Open Liberty Operator and click on OpenLibertyApplication. The list of custom resource will be shown.

Select the application to make the change.

In the yaml, add the route annotation as shown in the sample below. Note that spec and route fields are already present in customer's CR, so the annotation field should be added under `.spec.route`. Replace '<value>' with the actual value. annotations:

haproxy.router.openshift.io/balance: <value>

01:44 PM **Venkat_S** (IBM)

Hello,

We got following update from development team. Kindly try the suggestion and let us know the result.

Liberty Operator sets some node and pod affinity to influence where the pods are scheduled. But it doesn't set any affinity for traffic management. Load balancing is handled by OpenShift/Kubernetes.

Passthrough route is configured for the application based on the following config in the OpenLibertyApplication custom resource (CR) named `msiapp` in namespace `apl-prod`:

route:

insecureEdgeTerminationPolicy: Redirect

termination: passthrough

The default OpenShift load-balancing policy for passthrough route is `source`, but it can be changed using route annotation `haproxy.router.openshift.io/balance`. Route annotations can be set in OpenLibertyApplication CR by using the `.spec.route.annotations` field.

On a separate note, it seems that the deprecated Open Liberty Operator 0.8.0. This version and release stream (beta2 CatalogSource channel with 0.x.x) is no longer maintained. We strongly advise the client to move to the supported Open Liberty Operator version 1.3.x.

11:29 AM **DC Infra Support** (Customer)

Hi Venkat,

Thanks for the update.

Thanks!

11:27 AM **Venkat_S** (IBM)

Hello,

Thanks for providing the dump file. We are engaging development team to look into the issue. As soon as we receive update from them we will get back to you.

11:01 AM **DC Infra Support** (Customer)

Hi Venkat,

Please check now, we have extracted directory .

10:41 AM **Venkat_S** (IBM)

Hi Neha,

The zip file uploaded is corrupted, it is not a valid zip. Please verify, ensure you extract the zip on your end and upload it.

10:22 AM **DC Infra Support** (Customer)

Hi Venkat,

Now, We have uploaded files on case , please are you able to see ?

Thanks!

10:15 AM **Venkat_S** (IBM)

Hello Neha,

You should upload the data to case only. It is not allowed to send data to personal emails.

10:14 AM **DC Infra Support** (Customer)

Hi Venkat,

Can you give us your email id, so that we can send mail to you.

10:12 AM **DC Infra Support** (Customer)

Hi Venkat,

I am trying to upload file but getting error, below are the error getting while upload on case.

Liberty.dump.zip

26 MB / 33 MB

Upload was unsuccessful. Wait for any remaining uploads to finish and retry.

10:08 AM **Venkat_S** (IBM)

Hi Neha,

We have not yet received the dump file. Please make sure to upload it to case to move forward.

Support case history



10:08 AM **Venkat_S** (IBM)
 Had webex with client.
 One month ago, client increased one pod to 5 and noticed one pod consuming more memory and cpu, they thinks it is handling more traffic than others.
 Due to this client seeing performance issue, each request taking 16ms average response time instead of 1/2 ms.
 Tried to capture dumps on the pod taking more memory and cpu using Liberty operator, it failed with below error
 Encountered error while running command: [/bin/sh -c mkdir -p /serviceability/apl-prod/msiapp-545564df95-kn92w && server dump --archive=/serviceability/apl-prod/msiapp-545564df95-kn92w/2024-03-18_14:04:52.zip --include=thread,heap,system,] ; Stderr: mkdir: cannot create directory '/serviceability': Permission denied ; Error: command terminated with exit code 1
 Using rsh connected to pod and captured dump using below command.
 server dump defaultServer --archive=Liberty.dump.zip --include=thread,heap,system
 Copied same to local file system on the server.
 Requested client to upload the data to case to engage development team and get further assistance.


10:01 AM **DC Infra Support** (Customer)
 Hi Venkat,
 We have uploaded liberty dumps file as requested .
 Kindly find it and revert back ASAP.
 Thanks!

08:17 AM **Venkat_S** (IBM)
 Hello,
 I am available for webex session. Please join using below URL
<https://ibm.webex.com/meet/vsadineni>

07:10 AM **Venkat_S** (IBM)
 Hello,
 As per our previous update we have requested to capture the dump zip file not the yaml. Kindly follow the steps as suggested, capture the dump and messages.log from the impacted pod as instructed and provide us for further analysis.

06:28 AM **DC Infra Support** (Customer)
 Hi Team,
 Kindly find the attachment of OpenLibertyDump file as requested.
 Please suggest us further process.
 Thanks!

03:13 AM **Yoshiki Yamada** (IBM)
 Hello,
 Kindly capture the dump file with the steps below.
 OCP Console > select Project with Open Liberty Operator > Operators > Installed Operators > "Open Liberty Operator"
 > Click "Open Liberty Dump" > Click "Create OpenLibertyDump" Button

 You will see 2 Views - Form View & Yaml View

 Fill-in either Views with below data & click Create Button
 Sample
 apiVersion: openliberty.io/v1beta1
 kind: OpenLibertyDump
 metadata:
 name: libertyapp-dump
 namespace: apl-prod
 spec:
 podName: msiapp-74b8fb9b86-fpv9w
 include:
 - thread
 - heap
 - system
 Dump file name will be added to OpenLibertyDump CR status and file will be stored in serviceability folder using format such as /serviceability/NAMESPACE/POD_NAME/TIMESTAMP.zip
 e.g
 oc cp apl-prod/msiapp-74b8fb9b86-fpv9w:serviceability/apl-prod/msiapp-74b8fb9b86-fpv9w/2020-09-28_15:04:28.zip ./2020-09-28_150428.zip
 Just in case, kindly capture the messages.log as well.
 oc cp apl-prod/msiapp-74b8fb9b86-fpv9w:logs/messages.log ./messages.log
 regards, Yoshiki

03:02 AM **DC Infra Support** (Customer)
 Hi Team

Support case history



Q .You wanted to show me that the usage of msiapp-74b8fb9b86-fpv9w has been significantly increased?
yes only this pod getting high cpu we already attached capture for your reference.
Kindly check please
Thanks!

02:08 AM **Yoshiki Yamada** (IBM)

Dear Customer,
[msi.PNG](#) you just uploaded was the original state? You wanted to show me that the usage of msiapp-74b8fb9b86-fpv9w has been significantly increased?
Or msi.PNG is the current state and the issue is intermittent?
For the root cause analysis, we definitely needs the liberty dump when the issue is actually happening. To make sure this point, when you capture the dump file, kindly capture the same screen shot.

02:04 AM **Yoshiki Yamada** (IBM)

Dear Customer,
Thank you for the answers below.

Could you tell us how you are monitoring the utilization?
we monitor the perticular application cpu utilization through our openshift console dashboard .
How did you conclude that one of 5 pods are handling more traffic?
we attached screenshot for your refrance in that screenshot we are able to see claerly
Have you restarted the pod? If yes, could you describe what happens?
we redeploy the application
Is this the first time occurrence?
no we are facing this issue from last month
How is the issue impacting your business?
huge impact because our application is not working on proper way

Do you mean even after you restart the affected pod, the issue can happen on other pods, right?
Are you gathering the liberty dump file with the correct pod name? Please note that you need to specify the exact pod name which is suffering from the high cpu/memory issue.
regards, Yoshiki

01:59 AM **DC Infra Support** (Customer)

Hi Team
We attached your query ans for your reference
Thanks!

01:57 AM **Yoshiki Yamada** (IBM)

Dear Customer,
After capturing the diagnostic data successfully, kindly consider to restart the affected pod and see if it can mitigate the impact of the issue.
Of course, if you need the immediate recovery, please go ahead and restart the pod ASAP.
I just end my webex since no one had joined the call. To proceed the analysis further, kindly capture the requested data with the correct pod name.
Best regards, Yoshiki

01:53 AM **Yoshiki Yamada** (IBM)

Dear Customer,
I do understand the pod msiapp-74b8fb9b86-fpv9w is consuming more system resources.


Project: apl-prod ▼

▼ Filter ▼

Name ▼

Search by name

Name ↑	Status ↕	Ready
<div><div>P</div><div>msiapp-74b8fb9b86-2b2dq</div></div>	<div><div>↺</div>Running</div>	1/1
<div><div>P</div><div>msiapp-74b8fb9b86-4zrmf</div></div>	<div><div>↺</div>Running</div>	1/1
<div><div>P</div><div>msiapp-74b8fb9b86-fpv9w</div></div>	<div><div>↺</div>Running</div>	1/1
<div><div>P</div><div>msiapp-74b8fb9b86-izn8v</div></div>	<div><div>↺</div>Running</div>	1/1

 **msiapp-**
74b8fb9b8
6-pbqv8

 **Running**

1/1

Kindly use the exact pod name to gather the dump file.

msiapp-74b8fb9b86-fpv9w

We will await the data.

Best regards, Yoshiaki

01:50 AM **Yoshiaki Yamada** (IBM)

Dear Customer,

Could you tell us how you are monitoring the utilization?

How did you conclude that one of 5 pods are handling more traffic?

Have you restarted the pod? If yes, could you describe what happens?

When did this application start handling the production request?

Is this the first time occurrence?

How is the issue impacting your business?

I'm still checking the available information, but it will be much appreciated if you could answer the questions above?

01:44 AM **Yoshiaki Yamada** (IBM)

Dear Customer,

I think you specified a wrong pod name.

```
kind: OpenLibertyDump
```

```
:
```

```
spec:
```

```
  include:
```

```
    - thread
```

```
    - heap
```

```
  podName: msiapp
```

Could you specify the exact pod name which is taking higher utilization? You can check the pod name by running "oc get pod" in the namespace.

regards, Yoshiaki

01:40 AM **Yoshiaki Yamada** (IBM)

Dear Customer,

Could you join my webex?

<https://ibm.webex.com/meet/e30532>

regards, Yoshiaki

01:37 AM **DC Infra Support** (Customer)

Hi Team

Please check ASAP

This is our production environment

Thanks!

01:28 AM **Yoshiaki Yamada** (IBM)

Dear Customer,

I'm Yoshiaki from Cloud Pak for Applications support team. Currently the case owner, Venkat, is not available. Let me check the case history and available information. I'll get back to you shortly.

Best regards, Yoshiaki

17 Mar 2024

10:32 PM **DC Infra Support** (Customer)

Hi Team

we follow the step which you provided on following article

we are getting error

Can we connect please let us know your availability

Thanks!

Support case history



10:03 PM **DC Infra Support** (Customer)

Hi Team

As your provided document we generated openliberty dumb file for your refrance

Kindly check and confirm

Kindly find attachment

Thanks!

12:48 PM **Avinash.Singh6** (IBM)

Hello Team,

This is not load balancing issue. Its more of resource utilization issue.

We will need liberty server dumps to debug the issue. My last post request: 5) If you using **Open Liberty operator**, using operator generate the Liberty Server Dumps and upload.

please do below to generate the dumps.

OCP Console > select Project with Open Liberty Operator > Operators > Installed Operators > "Open Liberty Operator" > Click "Open Liberty Dump" > Click "Create OpenLibertyDump" Button

The screenshot displays the Open Liberty Operator interface within the OpenShift Container Platform (OCP) console. The left-hand navigation pane is visible, showing the 'Operators' section expanded. The main area shows the 'Installed Operators' for the 'libertyapp' project. A search bar is present above a table listing installed operators. One operator is listed: 'Open Liberty Operator' with version '0.6.1 provided by IBM'.

You will see 2 Views - Form View & Yaml View

Overview

Projects

Search

Explore

Events

Operators

OperatorHub

Installed Operators

Workloads

Pods

Deployments

Deployment Configs

Stateful Sets

Secrets

Config Maps

Cron Jobs

Open Liberty Operator > Create OpenLibertyDump

Create OpenLibertyDump

Create by completing the form. Default values may be provided by t

Configure via: ☒ Form View ☐ YAML View

Note: Some fields may not be represented in this form. Pl

Name *

example-dump

Labels

app=frontend

podName *

Include

Value *

thread

Fill-in either Views with below data & click Create Button

Sample

apiVersion: openliberty.io/v1beta1

kind: OpenLibertyDump

metadata:

name: libertyapp-dump

namespace: image

spec:

podName: <Specify_Pod_Name_Here>

include:

- thread

- heap

- system

Dump file name will be added to OpenLibertyDump CR status and file will be stored in serviceability folder using format such as /serviceability/NAMESPACE/POD_NAME/TIMESTAMP.zip

To check the generated dumps.

Go To: nfs-provisioner project's Pod > terminal

cd to /persistentvolumes/<namespace-App_name-serviceability-pvc-xxxxx>/<name_space>/<Application_pod_name>/

upload the resulting dump.

-Avi

12:47 PM

Avinash.Singh6 (IBM)

Hello Team,

Support case history



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> Click "Open Liberty Dump" > Click "Create OpenLibertyDump" Button

You will see 2 Views - Form View & Yaml View

Fill-in either Views with below data & click Create Button

Sample

```
apiVersion: openliberty.io/v1beta1
kind: OpenLibertyDump
metadata:
  name: libertyapp-dump
  namespace: image
spec:
  podName: <Specify_Pod_Name_Here>
  include:
    - thread
    - heap
    - system
```

Dump file name will be added to OpenLibertyDump CR status and file will be stored in serviceability folder using format such as /serviceability/NAMESPACE/POD_NAME/TIMESTAMP.zip

To check the generated dumps.

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cd to /persistentvolumes/<namespace-App_name-serviceability-pvc-xxxxx>/<name_space>/<Application_pod_name>/

upload the resulting dump.

-Avi

11:19 AM **Venkat_S** (IBM)

Hello,

Thanks for providing the file. We will review and get back to you.

10:52 AM **DC Infra Support** (Customer)

Hi Team

1) Please confirm if you are using Open Liberty operator to manage application ?

Yes

2) oc get olapp <app_name> -o wide

[root@apbastion ~]# oc get olapp msiapp -o wide

Error from server (NotFound): openlibertyapplications.openliberty.io "msiapp" not found

we changed application name (msiapp)

for your reference we attached Openlibertyapplications.apps.openliberty.io (Msiapp yaml file)

Kindly check and revert

Thanks!

10:07 AM **Avinash.Singh6** (IBM)

Hello Team,

Please respond regarding the Severity of the case, If you fail to reply we will reduce the severity to 2.

As a kind reminder, a severity 1 case is generally appropriate only if ALL of the following are true:

The issue is occurring in production

The production environment is down or severely degraded for most/all users

There is no workaround known that can mitigate the issue

You have a 24x7 contact available to work with us until the issue is resolved.

Provide us business justification and user impact.

If all of the above are not true, please let us know if we may lower the severity to 2 at this time.

Our OCP Team reviewed the data and everything looks good from OCP platform perspective, Openshift cluster is working as expected.

Seems you are using Open Liberty operator, correct me if I am wrong.

Please share below:

1) Please confirm if you are using Open Liberty operator to manage application ?

Support case history



If Open Liberty operator, We would like to check OpenLibertyApplication CR instance.

2) CR status. In the **get olapp** command, replace `<app_name>` with the name of your CR instance.

```
oc get olapp <app_name> -o wide
```

3) Check the CR effective fields. In the **get olapp** command, replace `<app_name>` with the name of your CR instance.

```
$ oc get olapp <app_name> -o yaml > cr.yaml
```

4) describe olapp command, replace `<app_name>` with the name of your CR instance.

```
$ oc describe olapp <app_name> > cr_instance_describe.yaml
```

5) If you using **Open Liberty operator**, using operator generate the Liberty Server Dumps and upload.

Please upload all the cr.yaml and cr_instance_describe.yaml

There seems might be issue with the load-balancing algorithm. Different load-balancing algorithm for the application route please, refer to "Route-specific annotations":

<https://docs.openshift.com/container-platform/4.12/networking/routes/route-configuration.html#nw-route-specific-annotation>

Available options are random, source, roundrobin, and leastconn. The default value is source for TLS passthrough routes. For all other routes, the default is random.

Regards,

-Avi

09:49 AM

Avinash.Singh6 (IBM)

Hello Team,

Please respond regarding the Severity of the case, If you fail to reply we will reduce the severity to 2.

As a kind reminder, a severity 1 case is generally appropriate only if ALL of the following are true:

The issue is occurring in production

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1) Please confirm if you are using Open Liberty operator to manage application ?

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<https://docs.openshift.com/container-platform/4.12/networking/routes/route-configuration.html#nw-route-specific-annotation>

Available options are random, source, roundrobin, and leastconn. The default value is source for TLS passthrough routes. For all other routes, the default is random.

Regards,

-Avi

09:43 AM

DC Infra Support (Customer)

Hi Team,

Kindly update on below issue.

Thanks!

Support case history



08:23 AM **Venkat_S** (IBM)
Hello,
Thanks for providing the mustgather data. I have reviewed and engaged OCP SME team to review the data. As soon as we receive update from them we will get back to you.

06:47 AM **DC Infra Support** (Customer)
Hi Team,
We have attached latest must-gather report for further analysis .
Kindly find it .
Thanks!

06:21 AM **Venkat_S** (IBM)
Hello,
This is Venkat from IBM CP4A working on the case TS015731540. As a kind reminder, a severity 1 case is generally appropriate only if ALL of the following are true:
The issue is occurring in production
The production environment is down or severely degraded for most/all users
There is no workaround known that can mitigate the issue
You have a 24x7 contact available to work with us until the issue is resolved.
If all of the above are not true, please let us know if we may lower the severity to 2 at this time
In order to debug the issue can you please capture and provide us the following mustgather data.
Also, do you use Liberty operator? Under operators in the console do you see "IBM WebSphere Liberty" in the installed operators section?
Please, share a Red Hat cluster must-gather:
https://docs.openshift.com/container-platform/4.12/support/gathering-cluster-data.html#support_gathering_data_gathering
\$ oc adm must-gather
Satisfied clients are my top priority. If at any time you would like to provide feedback about the quality of service, please contact my manager Jay Parris (jparris@us.ibm.com). If you receive a short survey regarding your support experience with this case please take the time to complete the survey. This will let me know if I am achieving my goal of 100% client satisfaction. Also, if you are very satisfied with our support please recommend us to others you know. It's the best compliment you can give.
Thank you for using IBM Software Support (WebSphere) and have great day!
Venkat
IBM Software Support (CP4A)
Work hours: Mon-Fri 05:00 AM - 1:30 PM ET USA

05:38 AM **Andrea.Capriotti** (IBM)
Hello,
Thank you for contacting IBM support team today regarding an application pod taking higher utilization on OpenShift Container Platform 4.12. My name is Andrea Capriotti from Red Hat OpenShift Support team and I will be assisting you on this case.
I am sending this notification to inform you that we received your case and we are reviewing all information provided. However, to assist you with this, I would need some more information before making any diagnoses.
Please, share a Red Hat cluster must-gather:
https://docs.openshift.com/container-platform/4.12/support/gathering-cluster-data.html#support_gathering_data_gathering

\$ oc adm must-gather

Best Regards
Andrea Capriotti
Senior Technical Support Engineer - OpenShift

05:25 AM **DC Infra Support** (Customer)