MQ Web Server and Web Console: Technical and Troubleshooting Notes

https://www.ibm.com/support/pages/node/6208289

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IBM MQ Support

+++ Objective

To provide a good starting point for MQ Administrators to learn more about the new feature:
Web Server
Web Console

The chapters are:
Chapter 1: Overview (FAQs, history, references)
Chapter 2: Installation (effects on /opt/mqm)
Chapter 3: Setup and configuration (effects on /var/mqm and queue managers)
Chapter 4: Diagnostics review and what doc to gather (runmqras)
Chapter 5: Common errors and how to resolve them

++ Standalone MQ Web Server, introduced in MQ 9.3.5 CD

See tutorial:

https://www.ibm.com/support/pages/node/7145530
Installing and configuring standalone IBM MQ Web Server, Web Console and messaging REST API, 9.3.5 CD in Linux (with no security, for Testing environments)

++ Related documentation

The corresponding document for the MQ REST API is:

https://www.ibm.com/support/pages/node/6208422
MQ REST API: Technical and Troubleshooting Notes

The following tutorial provides very detailed instructions.

https://www.ibm.com/support/pages/node/6118000
Configuring MQ 9.1 Web Server in Linux and in Windows with No Security (for Testing the MQ Web Console)

++
+++ Chapter 1: Overview
++

The MQ Web Server is based on the WebSphere Liberty Profile (WLP) which is included with the MQ Server in order to provide an HTTP based administration facilities via the MQ Web Console and the MQ REST API

++ FAQs

+ Do customers need to buy an extra license to use the WebSphere Liberty Profile?

Answer:
No. The purchase of the MQ Server license includes already the use of the WLP.
Similarly with the JRE that is shipped with MQ, the use of WLP (and JRE) is restricted for MQ usage (that is, do not copy the WLP or JRE to a host that does not have MQ in order to use those features outside the scope of MQ).

+ What is the mapping between the MQ version.release.level and the version of WLP?

See the following article:

https://www.ibm.com/support/pages/node/713049
Levels of JRE and GSkit bundled with IBM MQ
(it includes more information: GSKit, JRE, LDAP, WLP Liberty)

```
IBM MQ 9.3.x Continuous Delivery GSKit Level   …      WebSphere Application Server
                                                      Liberty profile *
9.3.5.1 (Windows, Linux, AIX)    8.0.55.31     …      23.0.0.12
```

+ What files include the version of WLP?

As example, the following is obtained from the header of console.log or messages.log:

cd C:\ProgramData\IBM\MQ\web\installations\Installation1\servers\mqweb\logs

C:\ProgramData\IBM\MQ\web\installations\Installation1\servers\mqweb\logs> type console.log
Launching mqweb (WebSphere Application Server 23.0.0.12/wlp-1.0.84.cl231220231127-1901) on IBM J9 VM, version 8.0.8.15 - pwa6480sr8fp15-20231030_01(SR8 FP15) (en_US)
[AUDIT   ] CWWKE0001I: The server mqweb has been launched.

+ Limitations of the MQ Web Console 9.1 and 9.2.0 LTS (only queue managers from the SAME host and installation)

Note about MQ 9.2.3 CD and 9.3 LTS/CD:
The limitation was lifted with MQ 9.2.3 CD and 9.3 LTS/CD, that is, with recent version.releases you can use the MQ Web Server and Web Console with queue managers from other Installations in the same host or with remote queue managers

Note:
The limitation mentioned in this section does not apply to the MQ REST API, where you can have a "gateway" queue manager that can be used to talk to other queue managers (different Installations and different servers).

A common question from customers is:
Could I use a single MQ Web Console (for example, in host-a) and monitor/manage all the queue managers across different installations in the same host and in remote hosts?

Unfortunately, the answer is: No

Here are the limitations:

1: Only local queue managers that belong to the same Installation as the mqweb server can be managed by the MQ Web Console.

2: If a local queue manager to the mqweb server does NOT share the same Installation, then it CANNOT be managed.

3: Remote queue managers (not in the same host as the mqweb server) cannot be managed.

+ Illustration with concrete examples

Let's use the MQ Web Server that is associated with MQ 9.1.5 CD in the Linux Host (Installation1)

The green highlight will be used to indicate that the queue manager CAN be managed by the Web Server in question
The red strikethrough will be used to indicate that the queue manager CANNOT be managed by the Web Server in question.

* Local server, Linux RHEL 7.6 (hostname: orizaba1)
MQ 9.1.5 CD in Installation1
  Queue Manager: QMORI915 (port 1415) => Share same Installation1
  Queue Manager: QMDEMO (port 1425) => Share same Installation1
MQ 8.0.0.9 in Installation2 in /opt/mqm80
  ~~Queue Manager: QMORI8 (port 1416)~~ => same host, but different installation (Installation2)
.

* Remote Server, Windows 10 (hostname: ventanas1)
MQ 8.0.0.14 in Installation1
~~Queue Manager: QMVEN8 (port 1418)~~ => different host
MQ 9.1.0.4 LTS, Installation2
~~Queue Manager: QMVEN910 (port 1419)~~ => different host

++ History

MQ Appliance 8.0 introduced the MQ Web Server and MQ Web Console

MQ 9.0.1 CD added support for a number of HTTP-based administration capabilities
- Focus on low barrier to entry and ease of use
- MQ Console, a web-browser based graphical administration tool
- MQ REST API, a programmatic administration API
- Enhanced further during CD deliverables 9.0.x and 9.1.x

++ References

The following document provides a very good overview of these new features in MQ and the rationale of why they were developed and what problems are addressed.

https://www.mqtechconference.com/sessions_v2018/MQTC_v2018_MQAdmin_Console_REST.pdf
MQ Administration, the Web Console, & REST API
Sam Goulden, IBM MQ L3 Service
sgoulde4@uk.ibm.com

Main page from the online KC:

https://www.ibm.com/support/knowledgecenter/SSFKSJ_9.1.0/com.ibm.mq.mqc.doc/q127610_.htm
IBM MQ 9.1.x
The IBM MQ Console

Subtopics

- Quick tour of the New Web Console

  IBM® MQ Version 9.1.5 has a new console, named the New Web Console, with a new look and feel.

- Working with local queue managers

  You can use the local queue manager widget in the IBM MQ Console to create, configure, and control local queue managers.

- Working with IBM MQ objects

  You can use the IBM MQ object widgets in the IBM MQ Console to work with the different types of IBM MQ object.

- Working with authority records

  You can control the access that groups have to queue managers and IBM MQ objects by specifying an authority record for that group.

- Monitoring system resource usage

  You use the Charts widget in the IBM MQ Console to view monitoring data for queue managers.

- Configuring dashboard layouts

  A dashboard is a container in the IBM MQ Console in which widgets are shown. You can create multiple dashboard tabs to show different selections of information.

- The dashboard controls

  V 9.1.0 Use the controls at the top of the dashboard to enable IBM MQ Console tracing, access the online help, view information about the IBM MQ Console, and log out of the IBM MQ Console.

- Keyboard shortcuts

  V 9.1.0 You can use keyboard shortcuts to work with the IBM MQ Console.

++ IBM Internal

https://supportcontent.ibm.com/support/pages/node/6208288
MQ Skill Transfer: Web Server, Web Console and REST API - IBM INTERNAL

++
+++ Chapter 2: Installation
++

++ Are there new files/directories under MQ_INSTALLATION_PATH?

Answer: Yes

Linux: /opt/mqm
AIX: /usr/mqm
Windows: C:\Program Files\IBM\MQ

 # rpm -qpl MQSeriesWeb-9.1.5-0.x86_64.rpm

```
/opt/mqm
/opt/mqm/bin
/opt/mqm/bin/amqwlpver
/opt/mqm/bin/dspmqweb
/opt/mqm/bin/endmqweb
/opt/mqm/bin/setmqweb
/opt/mqm/bin/strmqweb
/opt/mqm/swidtag
/opt/mqm/swidtag/IBM_MQ_WebUI-9.1.5.mqtag
/opt/mqm/web
/opt/mqm/web/etc
/opt/mqm/web/etc/server.env
/opt/mqm/web/mq
/opt/mqm/web/mq/apps
/opt/mqm/web/mq/apps/com.ibm.mq.console.ear
/opt/mqm/web/mq/apps/com.ibm.mq.rest.ear
/opt/mqm/web/mq/apps/com.ibm.mq.webconsole.ear
/opt/mqm/web/mq/etc
/opt/mqm/web/mq/etc/mqweb.xml
/opt/mqm/web/mq/libs
/opt/mqm/web/mq/libs/com.ibm.mq.rest.utils.jar
/opt/mqm/web/mq/libs/com.ibm.mq.restapi.common.jar
/opt/mqm/web/mq/libs/com.ibm.wmqfte.cmdline.jar
/opt/mqm/web/mq/libs/com.ibm.wmqfte.common.jar
/opt/mqm/web/mq/libs/com.ibm.wmqfte.exitroutines.api.jar
/opt/mqm/web/mq/libs/json-20080701.jar
/opt/mqm/web/mq/samp
/opt/mqm/web/mq/samp/configuration
/opt/mqm/web/mq/samp/configuration/basic_registry.xml
/opt/mqm/web/mq/samp/configuration/ldap_registry.xml
/opt/mqm/web/mq/samp/configuration/local_os_registry.xml
/opt/mqm/web/mq/samp/configuration/no_security.xml
/opt/mqm/web/mq_wlp.tar.gz
```

++ For step-by-step instructions for the installation in Linux and Windows, see the following tutorial:

https://www.ibm.com/support/pages/node/6118000
Configuring MQ 9.1 Web Server in Linux and in Windows with No Security
(for Testing the MQ Web Console)

Quick summary:
Need to install the MQ Web Server fileset/component.

+ Linux:
As user root you need to install the following rpm fileset:
MQSeriesWeb-9.1.5-0.x86_64.rpm

+ AIX:
As user root you need to install the following rpm fileset:
mqm.web.rte

+ Windows:
As a Windows Administrator you need to install the following component:
Web Administration

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+++ Chapter 3: Setup and configuration
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

++ New directories or files under MQ_DATA_PATH (/var/mqm)?

Answer: Yes. They are created during the installation.

Main configuration file:
  /var/mqm/web/installations/INSTALLATION-NUMBER/servers/mqweb/

Main troubleshooting files:
  /var/mqm/web/installations/INSTALLATION-NUMBER/servers/mqweb/logs/
   ./messages.log => SystemOut.log
   ./console.log => for auditing purposes

Only a subset of the files and directories will be shown here.
The ones that could be of possible interest for MQ Support.

```
mqm@orizaba1.fyre.ibm.com: /var/mqm/web
$ ls -1FR
.
installations/

./installations:
Installation1/

./installations/Installation1:
servers/

./installations/Installation1/servers:
mqweb/

./installations/Installation1/servers/mqweb:
jvm.options
logs/
mqwebuser.xml
resources/
server.xml
workarea/

./installations/Installation1/servers/mqweb/logs:
console.log
ffdc/
messages_20.05.08_08.02.35.0.log
messages.log
```

state/
status.xml

./installations/Installation1/servers/mqweb/logs/ffdc:
exception_summary_20.05.04_05.22.49.0.log
ffdc_20.05.04_05.22.49.0.log

./installations/Installation1/servers/mqweb/logs/state:
com.ibm.ws.jmx.local.address
plugin-cfg.xml

./installations/Installation1/servers/mqweb/resources:
security/

./installations/Installation1/servers/mqweb/resources/security:
key.jks
ltpa.keys

./installations/Installation1/servers/mqweb/workarea:
(Too many files and subdirectories to list here and do not seem to be of interest for Support)

++ Any impact to runmqsc or qm.ini, or similar?

+ runmqsc: new SYSTEM queue, or queue manager object or attribute?

None

+ Files *.ini: new stanza or attribute? New ini file?

None

+ Ports used:

Linux:

mqm@orizaba1.fyre.ibm.com: /home/mqm
$ dspmqweb
MQWB1124I: Server 'mqweb' is running.
URLS:
  https://orizaba1.fyre.ibm.com:9443/ibmmq/rest/
  http://orizaba1.fyre.ibm.com:9080/ibmmq/rest/
  https://orizaba1.fyre.ibm.com:9443/ibmmq/console/
  http://orizaba1.fyre.ibm.com:9080/ibmmq/console/

Windows:

```
C:\ProgramData\IBM\MQ\> dspmqweb
MQWB1124I: Server 'mqweb' is running.
URLS:
  https://10.21.11.104:9443/ibmmq/rest/v1/
  http://10.21.11.104:9080/ibmmq/rest/v1/
  https://10.21.11.104:9443/ibmmq/console/
  http://10.21.11.104:9080/ibmmq/console/
```

++ Configuration

a) For step-by-step instructions for the configuration in Linux and Windows, see the following tutorial:

https://www.ibm.com/support/pages/node/6118000
Configuring MQ 9.1 Web Server in Linux and in Windows with No Security
(for Testing the MQ Web Console)

b) The runtime configuration files are located in the following directory:
Linux: **cd /var/mqm/web/installations/Installation1/servers/mqweb**
Windows: **cd C:\ProgramData\IBM\MQ\web\installations\Installation1\servers\mqweb**

The main configuration file is: **mqwebuser.xml**

c) The main commands are:

To append a variable at the end of the file mqwebuser.xml
$ **setmqweb properties -k httpHost -v "*"**

To start the MQ Web Server (no parameters)
$ **strmqweb**
Starting server mqweb.
Server mqweb started with process ID 23228.

To display the http links for the running server:
$ **dspmqweb**
MQWB1124I: Server 'mqweb' is running.
URLS:
https://orizaba1.fyre.ibm.com:9443/ibmmq/rest/v1/
http://orizaba1.fyre.ibm.com:9080/ibmmq/rest/v1/
https://orizaba1.fyre.ibm.com:9443/ibmmq/console/
http://orizaba1.fyre.ibm.com:9080/ibmmq/console/

To end the web server:
$ **endmqweb**
Stopping server mqweb.
Server mqweb stopped.

To display the status of the web server, but it is not running:
$ **dspmqweb**
MQWB1125I: Server 'mqweb' is not running.

++
+++ Chapter 4: Diagnostics review and what doc to gather
++

++ Reference from the online KC

https://www.ibm.com/support/knowledgecenter/SSFKSJ_9.1.0/com.ibm.mq.tro.doc/q132080_.htm
IBM MQ 9.1.x / IBM MQ / Troubleshooting and support /
Troubleshooting the IBM MQ Console and REST API

++ The 2 most important diagnostic files are:

console.log
messages.log

+ The file messages.log is the SystemOut.log from the WAS Liberty server.

An example is shown below:

```
********************************************************************************
product = WebSphere Application Server 19.0.0.12 (wlp-1.0.35.cl191220191120-0300)
wlp.install.dir = /opt/mqm/web/
server.config.dir = /var/mqm/web/installations/Installation1/servers/mqweb/
java.home = /opt/mqm/java/jre64/jre
java.version = 1.8.0_241
java.runtime = Java(TM) SE Runtime Environment (8.0.6.5 - pxa6480sr6fp5ifix-
20200228_01(SR6 FP5+IJ23014))
os = Linux (3.10.0-957.12.1.el7.x86_64; amd64) (en_US)
process = 27421@9.46.77.213
********************************************************************************
[5/8/20 7:19:30:557 PDT] 00000001
com.ibm.ws.kernel.launch.internal.FrameworkManager           A CWWKE0001I: The
server mqweb has been launched.
[5/8/20 7:19:31:269 PDT] 0000001f com.ibm.ws.config.xml.internal.XMLConfigParser
A CWWKG0028A: Processing included configuration resource:
/opt/mqm/web/mq/etc/mqweb.xml
[5/8/20 7:19:31:308 PDT] 0000001f com.ibm.ws.config.xml.internal.XMLConfigParser
A CWWKG0028A: Processing included configuration resource:
/var/mqm/web/installations/Installation1/servers/mqweb/mqwebuser.xml
[5/8/20 7:19:31:546 PDT] 00000001
com.ibm.ws.kernel.launch.internal.FrameworkManager           I CWWKE0002I: The
kernel started after 1.2 seconds
[5/8/20 7:19:31:581 PDT] 00000029 com.ibm.ws.kernel.feature.internal.FeatureManager
I CWWKF0007I: Feature update started.
[5/8/20 7:19:31:842 PDT] 0000001e
com.ibm.ws.security.ready.internal.SecurityReadyServiceImpl  I CWWKS0007I: The
security service is starting...
[5/8/20 7:19:32:033 PDT] 0000001f com.ibm.ws.annocache.service
I OSGi Work Path [
/var/mqm/web/installations/Installation1/servers/mqweb/workarea/org.eclipse.osgi/41
/data ]
[5/8/20 7:19:32:297 PDT] 0000002c com.ibm.ws.tcpchannel.internal.TCPChannel
I CWWKO0219I: TCP Channel defaultHttpEndpoint has been started and is now listening
```

```
for requests on host *  (IPv4) port 9080.
[5/8/20 7:19:33:120 PDT] 00000024 com.ibm.ws.ssl.config.WSKeyStore
I Successfully loaded default keystore:
/var/mqm/web/installations/Installation1/servers/mqweb/resources/security/key.jks
of type: JKS

[5/8/20 7:19:33:206 PDT] 0000002c com.ibm.ws.tcpchannel.internal.TCPChannel
I CWWKO0219I: TCP Channel defaultHttpEndpoint-ssl has been started and is now
listening for requests on host *  (IPv4) port 9443.
[5/8/20 7:19:33:443 PDT] 0000001e com.ibm.ws.cache.ServerCache
I DYNA1001I: WebSphere Dynamic Cache instance named b
```

+ The file console.log is one that is useful for Auditing purposes.

An example is shown below:

```
Launching mqweb (WebSphere Application Server 19.0.0.12/wlp-
1.0.35.cl191220191120-0300) on IBM J9 VM, version 8.0.6.5 - pxa6480sr6fp5ifix-
20200228_01(SR6 FP5+IJ23014) (en_US)
[AUDIT   ] CWWKE0001I: The server mqweb has been launched.
[AUDIT   ] CWWKG0028A: Processing included configuration resource:
/opt/mqm/web/mq/etc/mqweb.xml
[AUDIT   ] CWWKG0028A: Processing included configuration resource:
/var/mqm/web/installations/Installation1/servers/mqweb/mqwebuser.xml
[AUDIT   ] CWWKT0016I: Web application available (default_host):
http://orizaba1.fyre.ibm.com:9080/ibmmq/rest/
[AUDIT   ] CWWKZ0001I: Application com.ibm.mq.rest started in 0.897 seconds.
[AUDIT   ] CWWKT0016I: Web application available (default_host):
http://orizaba1.fyre.ibm.com:9080/ibmmq/console/
[AUDIT   ] CWWKT0016I: Web application available (default_host):
http://orizaba1.fyre.ibm.com:9080/ibmmq/console/internal/
[AUDIT   ] CWWKZ0001I: Application com.ibm.mq.console started in 0.974 seconds.
 [AUDIT   ] CWWKF0011I: The mqweb server is ready to run a smarter planet. The
mqweb server started in 4.702 seconds.
[AUDIT   ] MQWB2019I: MQ Console level: p915-L200316
[AUDIT   ] MQWB0400E: The MFT REST API is not enabled.
[AUDIT   ] MQWB0023I: MQ REST API level: p915-L200316
[AUDIT   ] MQWB2014A: Queue manager 'QMORI' created by 'UNAUTHENTICATED'.
```

++ Where to find the files at the MQ server at the customer side

You can ask the customer to go into the web directory under /var/mqm

```
$ cd /var/mqm/web
```

Then go into

```
$ cd installations/Installation1/servers/mqweb
$ ls -l
-rw-rw-r-- 1 mqm mqm  858 Aug 28  2019 jvm.options
drwxrws--- 4 mqm mqm  128 May  8 08:02 logs
-rw-rw---- 1 mqm mqm  891 Aug 28  2019 mqwebuser.original.xml
-rw-rw---- 1 mqm mqm 2871 May  8 08:02 mqwebuser.xml
-r--r----- 1 mqm mqm 2831 May  8 08:01 no_security.xml
drwxrwsr-x 3 mqm mqm   22 Mar 25 09:20 resources
-rw-r----- 1 mqm mqm  589 Aug 28  2019 server.xml
drwxrwsr-x 6 mqm mqm  176 May  8 08:02 workarea

$ cd logs
(Full directory: cd installations/Installation1/servers/mqweb/logs)
-rw-rw-r-- 1 mqm mqm  1678 May  8 08:09 console.log
drwxrwsr-x 2 mqm mqm   176 May  4 05:22 ffdc
-rw-rw-r-- 1 mqm mqm 17968 May  8 08:00 messages_20.05.08_08.02.35.0.log
-rw-rw-r-- 1 mqm mqm 15156 May  8 08:09 messages.log
drwxrwsr-x 2 mqm mqm    64 May  8 08:02 state
-rw-rw-r-- 1 mqm mqm   761 May  8 08:02 status.xml

$ cd ffdc
(Full directory: cd installations/Installation1/servers/mqweb/logs/ffdc)
-rw-rw-r-- 1 mqm mqm   622 Apr  8 11:24 exception_summary_20.04.08_10.27.59.0.log
-rw-rw-r-- 1 mqm mqm   608 May  8 07:18 exception_summary_20.05.04_05.22.49.0.log
-rw-rw-r-- 1 mqm mqm 27566 Apr  8 10:27 ffdc_20.04.08_10.27.58.0.log
-rw-rw-r-- 1 mqm mqm 16571 May  4 05:22 ffdc_20.05.04_05.22.49.0.log
```

++ Getting trace

Note about DISABLING the trace (after you have captured the desired trace)
setmqweb properties -k traceSpec -v "*=info"

https://www.ibm.com/docs/en/ibm-mq/9.2?topic=trace-tracing-new-web-console
Tracing the New Web Console

In a Standalone VM (not inside OpenShift), I was able to perform the steps mentioned in the manual:

To ENABLE the trace:

```
mqm@riggioni1.fyre.ibm.com: /home/mqm
$ setmqweb properties -k traceSpec -v "*=info:com.ibm.mq*=all:com.ibm.mq.rest*=all:js.mq*=all"
MQWB1100I: The 'setmqweb' command completed successfully.

$ setmqweb properties -k traceSpec -v "*=info:js.mq*=all"
MQWB1100I: The 'setmqweb' command completed successfully.

$ strmqweb
Starting server mqweb.
Server mqweb started with process ID 325751.

$ dspmqweb
MQWB1124I: Server 'mqweb' is running.
URLS:
  https://riggioni1.fyre.ibm.com:9443/ibmmq/console/
  http://riggioni1.fyre.ibm.com:9080/ibmmq/console/
  https://riggioni1.fyre.ibm.com:9443/ibmmq/rest/
  http://riggioni1.fyre.ibm.com:9080/ibmmq/rest/
```

Step from Manual:
Modify the URI that is being used to access the New Web Console, so that it includes the string:
?trace=true

This is the URL that I used from a web browser in Windows
https://riggioni1.fyre.ibm.com:9443/ibmmq/console/?trace=true

I saw a trace.log file in:
mqm@riggioni1.fyre.ibm.com:
/var/mqm/web/installations/Installation1/servers/mqweb/logs
$ ls -lt
-rw-rw-r-- 1 mqm mqm 2260 Oct 13 12:35 console.log
-rw-rw-r-- 1 mqm mqm 17812 Oct 13 12:35 messages.log
-rw-rw-r-- 1 mqm mqm 1839558 Oct 13 12:35 trace.log

++ runmqras

For “runmqras”, starting with MQ 9.1.0, there is a new value for “section”:

[V9.1.0 Jul 2018] **mqweb**
Gathers trace and configuration data for the mqweb server.

General format:
runmqras -section mqweb -caseno TS12345 -ftp IBM

Real example:

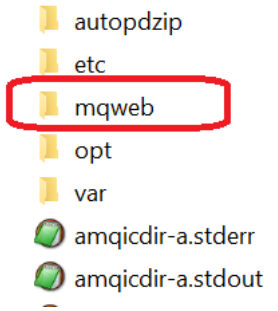
Host “orizaba1” (Linux) has MQ 9.1.5 CD and the MQ Web Server was enabled.

The ticket TS003658930 is going to be used

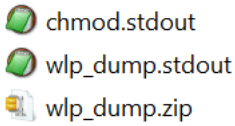
The following will be the “baseline” without any sections, in order to allow a comparison when doing the section for the mqweb (next step):
$ runmqras -caseno TS003658930 -ftp IBM
File name:
TS003658930.runmqras_202005081111-orizaba1.fyre.ibm.com.zip

Now let’s use the “**-section mqweb**”:
$ **runmqras -section mqweb -caseno TS003658930 -ftp IBM**
File name:
TS003658930.runmqras_202005081114-orizaba1.fyre.ibm.com.zip

After unzipping the zip files, there is only ONE item that is different:
a subdirectory named “mqweb”



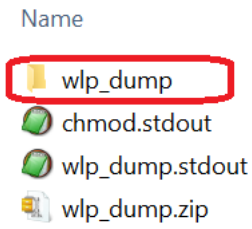
Inside the directory “mqweb” there are 3 entries:



Notice: due to the long names in directories, it might be possible to reach a limit on the full path names in Windows, preventing you from unzipping:
wlp_dump.zip

You may need to copy the wlp_dump.zip file into a shorter overall directory, such as:
C:\temp
And then unzip it there, which will give a directory called:
wlp_dump

You may need to move that directory “wlp_dump” into the original directory tree under the unzipped runmqras for consistency.



Even though there will be MANY files under “wlp_dump”, there are only a handful that are of interest to MQ Support:

UNZIPPED-DIRECTORY-FROM-RUNMQRAS\mqweb\wlp_dump\logs

```
C:\runmqras-mqweb-orizaba1.fyre.ibm.com\mqweb\wlp_dump\logs> dir
05/08/2020  11:23 AM             1,842 console.log
05/08/2020  11:23 AM                 0 dump.log
05/08/2020  02:29 PM    <DIR>          ffdc
05/08/2020  11:23 AM            15,494 messages.log
05/08/2020  08:00 AM            17,968 messages_20.05.08_08.02.35.0.log
05/08/2020  02:29 PM    <DIR>          state
05/08/2020  08:02 AM               761 status.xml
```

++
+++ Chapter 5: Common errors and how to resolve them
++

++ Trying to start a 2nd instance of the Web Server in same host (different InstallationName)

Using Installation1 you start successfully a Web Server via strmqweb and dspmqweb shows proper output.

Then using Installation2 you issued strmqweb and apparently works fine, but when doing dspmqweb, it fails.

C:\ProgramData\IBM\MQ >strmqweb
Starting server mqweb.
Server mqweb started.

C:\ProgramData\IBM\MQ >dspmqweb
MQWB1124I: Server 'mqweb' is running.
MQWB1123E: The status of the mqweb server applications cannot be determined.
A request was made to read the status of the deployed mqweb server applications, however the data appears corrupt. This may indicate that there is already an mqweb server started on this system, probably related to another IBM MQ instance.
Check the startup logs for the mqweb server, looking in particular for conflicting usage of network ports. Ensure that if you have multiple mqweb servers on a system, they are configured to use distinct network ports. Restart the mqweb server and ensure it started correctly. If the problem persists, seek assistance from IBM support.

+ Cause:
You can have only 1 application using a particular port (9443 or 9080).

+ Solution:
If you want to have multiple MQ Web Servers running concurrently then you need to configure the 2nd and subsequent MQ Web Servers to use another port.

+++ end