

## QGIS Application - Bug report #21583

### qgis\_map.fcgi on macOS doesn't find libraries

2019-03-14 11:39 AM - Arno Lepisk

<b>Status:</b>	Open	
<b>Priority:</b>	Normal	
<b>Assignee:</b>		
<b>Category:</b>	QGIS Server	
<b>Affected QGIS version:</b>	3.6.0	<b>Regression?:</b> No
<b>Operating System:</b>	macOS	<b>Easy fix?:</b> No
<b>Pull Request or Patch supplied:</b>	No	<b>Resolution:</b>
<b>Crashes QGIS or corrupts data:</b>	No	<b>Copied to github as #:</b> 29399
<b>Description</b>		
<p>I try to run the qgis server via spawn-fcgi on macOS. The server seems to start, but when trying to access the webpage I get an ServerException "Layer(s) not valid"</p> <p>The server log says:</p> <p>11:26:03 WARNING No Data Providers[53228]: No QGIS data provider plugins found in: /Applications/QGIS3.6.app/Contents/MacOS/fcgi-bin/../PlugIns/qgis</p> <p>No vector layers can be loaded. Check your QGIS installation</p> <p>11:26:04 WARNING No Authentication Methods[53228]: No QGIS auth method plugins found in: /Applications/QGIS3.6.app/Contents/MacOS/fcgi-bin/../PlugIns/qgis</p> <p>No authentication methods can be used. Check your QGIS installation</p> <p>11:26:04 WARNING [53228]: Couldn't load Python support library: Cannot load library /Applications/QGIS3.6.app/Contents/MacOS/fcgi-bin/lib/qgispython: (dlopen(/Applications/QGIS3.6.app/Contents/MacOS/fcgi-bin/lib/libqgispython.dylib, 10): image not found)</p> <p>It looks like the application is using /Applications/QGIS3.6.app/Contents/MacOS/fcgi-bin as prefix, when it should use /Applications/QGIS3.6.app/Contents/MacOS - i.e. the library it tries to load ( /Applications/QGIS3.6.app/Contents/MacOS/fcgi-bin/lib/libqgispython.dylib) is in /Applications/QGIS3.6.app/Contents/MacOS/lib/libqgispython.dylib</p>		

## History

### #1 - 2019-03-14 11:44 AM - Alessandro Pasotti

try to set the env var QGIS\_PREFIX\_PATH and point it to the base directory where QGIS libraries are (on Linux is "/usr" by default).

### #2 - 2019-03-14 11:58 AM - Arno Lepisk

with QGIS\_PREFIX\_PATH set to /Applications/QGIS3.6.app/Contents/MacOS/ I get a bit further, but then get these warnings:

11:51:33 WARNING [53420]: Failed to load library /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libdummy.so: Cannot load library  
/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libdummy.so:  
(dlopen(/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libdummy.so, 5): Library not loaded: @loader\_path/../lib/libqgis\_server.3.6.0.dylib  
Referenced from: /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libdummy.so  
Reason: image not found)

11:51:33 WARNING [53420]: Failed to load library /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwcs.so: Cannot load library  
/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwcs.so: (dlopen(/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwcs.so, 5):  
Library not loaded: @loader\_path/../lib/libqgis\_server.3.6.0.dylib  
Referenced from: /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwcs.so  
Reason: image not found)

11:51:33 WARNING [53420]: Failed to load library /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwfs.so: Cannot load library

```

/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwfs.so: (dlopen(/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwfs.so, 5):
Library not loaded: @loader_path/../lib/libqgis_server.3.6.0.dylib
Referenced from: /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwfs.so
Reason: image not found)
11:51:33 WARNING [53420]: Failed to load library /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwms.so: Cannot load library
/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwms.so: (dlopen(/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwms.so,
5): Library not loaded: @loader_path/../lib/libqgis_server.3.6.0.dylib
Referenced from: /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwms.so
Reason: image not found)
11:51:33 WARNING [53420]: Failed to load library /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwmts.so: Cannot load library
/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwmts.so: (dlopen(/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwmts.so,
5): Library not loaded: @loader_path/../lib/libqgis_server.3.6.0.dylib
Referenced from: /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwmts.so
Reason: image not found)

```

and requesting /qgisserver?SERVICE=WMS&VERSION=1.3.0&REQUEST=GetCapabilities gives me

```

<ServiceExceptionReport version="1.3.0">
  <ServiceException code="Service configuration error">Service unknown or unsupported</ServiceException>
</ServiceExceptionReport>

```

### #3 - 2019-03-14 12:27 PM - Giovanni Manghi

```

and requesting /qgisserver?SERVICE=WMS&VERSION=1.3.0&REQUEST=GetCapabilities gives me
<ServiceExceptionReport version="1.3.0">
  <ServiceException code="Service configuration error">Service unknown or unsupported</ServiceException>
</ServiceExceptionReport>

```

this is correct, you need to add the "map" parameter, and eventually the "service" and the "request" one

[http://ip/cgi-bin/qgis\\_mapserv.fcgi?map=/path/to/project.qgs&#38;service=WMS&#38;request=GetCapabilities](http://ip/cgi-bin/qgis_mapserv.fcgi?map=/path/to/project.qgs&#38;service=WMS&#38;request=GetCapabilities)

### #4 - 2019-03-14 12:28 PM - Giovanni Manghi

- Status changed from Open to Feedback
- Category changed from Browser to QGIS Server

### #5 - 2019-03-14 12:37 PM - Arno Lepisk

I have set the map parameter with an environment variable (QGIS\_PROJECT\_FILE)

The server log says

```

12:34:15 INFO Server[53632]: ***** New request *****
12:34:15 INFO Server[53632]: SERVER_NAME: localhost
12:34:15 INFO Server[53632]: REQUEST_URI: /qgisserver?SERVICE=WMS&VERSION=1.3.0&REQUEST=GetCapabilities
12:34:15 INFO Server[53632]: REMOTE_ADDR: 127.0.0.1
12:34:15 INFO Server[53632]: CONTENT_TYPE:
12:34:15 INFO Server[53632]: HTTP_USER_AGENT: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.14; rv:65.0) Gecko/20100101 Firefox/65.0
12:34:15 INFO Server[53632]: REQUEST: GetCapabilities
12:34:15 INFO Server[53632]: SERVICE: WMS
12:34:15 INFO Server[53632]: VERSION: 1.3.0
12:34:16 WARNING [53632]: Service WMS is not registered

```

12:34:16 INFO Server[53632]: Request finished in 785 ms

Probably as the wms library failed to load

12:33:47 WARNING [53632]: Failed to load library /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwms.so: Cannot load library /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwms.so: (dlopen(/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwms.so, 5): Library not loaded: @loader\_path/../lib/libqgis\_server.3.6.0.dylib  
Referenced from: /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwms.so  
Reason: image not found)

## #6 - 2019-03-14 12:39 PM - Giovanni Manghi

Arno Lepisk wrote:

*I have set the map parameter with an environment variable (QGIS\_PROJECT\_FILE)*

*The server log says*

*12:34:15 INFO Server[53632]: \*\*\*\*\* New request \*\*\*\*\**

*12:34:15 INFO Server[53632]: SERVER\_NAME: localhost*

*12:34:15 INFO Server[53632]: REQUEST\_URI: /qgisserver?SERVICE=WMS&VERSION=1.3.0&REQUEST=GetCapabilities*

*12:34:15 INFO Server[53632]: REMOTE\_ADDR: 127.0.0.1*

*12:34:15 INFO Server[53632]: CONTENT\_TYPE:*

*12:34:15 INFO Server[53632]: HTTP\_USER\_AGENT: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.14; rv:65.0) Gecko/20100101 Firefox/65.0*

*12:34:15 INFO Server[53632]: REQUEST: GetCapabilities*

*12:34:15 INFO Server[53632]: SERVICE: WMS*

*12:34:15 INFO Server[53632]: VERSION: 1.3.0*

*12:34:16 WARNING [53632]: Service WMS is not registered*

*12:34:16 INFO Server[53632]: Request finished in 785 ms*

*Probably as the wms library failed to load*

*12:33:47 WARNING [53632]: Failed to load library /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwms.so: Cannot load library*

*/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwms.so:*

*(dlopen(/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwms.so, 5): Library not loaded: @loader\_path/../lib/libqgis\_server.3.6.0.dylib*

*Referenced from: /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server/libwms.so*

*Reason: image not found)*

the url needs a "map" paramter pointing to a QGIS project, does it makes any difference if you add it?

## #7 - 2019-03-14 12:41 PM - Alessandro Pasotti

Giovanni Manghi wrote:

*and requesting /qgisserver?SERVICE=WMS&VERSION=1.3.0&REQUEST=GetCapabilities gives me*

*<ServiceExceptionReport version="1.3.0">*

*<ServiceException code="Service configuration error">Service unknown or unsupported</ServiceException>*

*</ServiceExceptionReport>*

*this is correct, you need to add the "map" parameter, and eventually the "service" and the "request" one*

[http://ip/cgi-bin/qgis\\_mapserv.fcgi?map=/path/to/project.qgs&#38;service=WMS&#38;request=GetCapabilities](http://ip/cgi-bin/qgis_mapserv.fcgi?map=/path/to/project.qgs&#38;service=WMS&#38;request=GetCapabilities)

Actually: that is NOT correct, the error message when MAP is missing is different. "Service unknown or unsupported" means that the SERVICE is missing or wrong, in this case it is NOT missing or wrong, but the library that provides WMS service was not loaded.

**#8 - 2019-03-14 01:43 PM - Arno Lepisk**

- Status changed from Feedback to Open

Removing the environment variable and providing a MAP parameter doesn't make a difference (omitting the parameter on the other hand gives an expected "Project file error")

**#9 - 2019-03-14 02:38 PM - Alessandro Pasotti**

So, the problem is that QGIS server cannot find and load the libraries that implement the services (wms, wfs etc. etc.).

On linux they are in:

/usr/lib/qgis/server:  
libdummy.so libwcs.so libwfs.so libwms.so libwmts.so

I'm sorry bu I'm no mac developer and I've no idea if the libraries are actually missing or if they are just in the wrong place...

**#10 - 2019-03-14 03:22 PM - Arno Lepisk**

They aren't missing, they are in /Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/server

The problem seems to be that the libraries they need have wrong paths in the library files.

I actually got it working by adding two symlinks:

/Applications/QGIS3.6.app/Contents/MacOS/lib/qgis/lib -> ../../lib  
/Applications/QGIS3.6.app/Contents/MacOS/lib/Frameworks -> ../../Frameworks