D4Science Infrastructure - Task #5105

Enable WebSocket support on nginx for infrastructure gateway

Sep 21, 2016 04:08 PM - Massimiliano Assante

Status:	Closed	Start date:	Sep 21, 2016
Priority:	High	**Due date:**	Sep 30, 2016
Assignee:	Andrea Dell'Amico	**% Done:**	100%
Category:		**Estimated time:**	0.00 hour
Target version:	UnSprintable		
Infrastructure:	Development, Pre-Production, Production		

Description
WebSocket is a protocol providing full-duplex communication channels over a single TCP connection. It basically allows full-duplex communication between clients and server.

Although tomcat 7 supports them, nginx (the reverse proxy) need some further configuration for support ws:// and wss:// (SSL Websocket) |

History

#1 - Sep 21, 2016 04:10 PM - Massimiliano Assante

url for testing: wss://next.d4science.org/workspace-6.14.0-SNAPSHOT/downloadfolder

#2 - Sep 21, 2016 04:25 PM - Andrea Dell'Amico

RIght now the situation is the following:

- haproxy already transparently manages the websocket connections
- nginx needs a couple of options that are

```
proxy_set_header Upgrade $http_upgrade;
proxy_set_header Connection "upgrade";
```

Those options cannot be globally set, so we need to find a way to not rewrite the nginx virtualhost every time an app activates the websockets.

#3 - Sep 21, 2016 04:26 PM - Andrea Dell'Amico

- Status changed from New to In Progress

#4 - Sep 21, 2016 05:03 PM - Andrea Dell'Amico

- Status changed from In Progress to Feedback

- % Done changed from 0 to 100

I've possibly found a generic solution. Now running on dev2.d4science.org.

The details:

```
map $http_upgrade $connection_upgrade {
    default upgrade;
    ''      close;
}
```

sets the variable if the client sent the header, empty otherwise. Then, in the virtualhost reverse proxy configuration:

```
proxy_set_header Upgrade $http_upgrade;
proxy_set_header Connection $connection_upgrade;
```

#5 - Sep 21, 2016 06:15 PM - Massimiliano Assante

so far so good, but I'll wait some days and more testing to close the task

#6 - Oct 11, 2016 03:05 PM - Andrea Dell'Amico

- Status changed from Feedback to Closed

Also verified on the rstudio servers.