DPMI Bitrate and RESTAPI

‘Team Inferno’

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User Requirement Testing

Test number:	UR_1
Requirement:	Web Interface
Description:	User requires simple web interface to control the desired measurement streams.
Test:	To check whether the API program is accessible through curl/browser. In Terminal type, "curl http://localhost:5000/<function>/<stream>" Where, functions are: startstream. Stop. addstream. deletestream. changestream. showstream. Note: while adding/deleting multiple streams separate streams using "," Ex: curl http://localhost:5000/addstream/01::01,01::02,01::03 curl http://localhost:5000/deletestream/01::01,01::02,01::03
Expected Result:	'curl' command should get executed without showing "Failed to connect port 5000: Connection Refused" error.
Test outcome:	API program is accessible without any error message.

Test number:	UR_2
Requirement:	Flexibility
Description:	The product should be able to flexibly control the measurement streams using start, stop, add, delete, change and show functionalities.
Test:	To check whether the functionalities offered by the API to control the measurement streams are working correctly or not. In Terminal or Browser type, curl http://localhost:5000/startsream/<stream> curl http://localhost:5000/stop curl http://localhost:5000/addstream/<streams> curl http://localhost:5000/deletestream/<streams> curl http://localhost:5000/changestream/<stream> curl http://localhost:5000/showstream
Expected Result:	User should be able to start, stop, add, delete, change and show the measurement streams.
Test outcome:	The functionalities offered by the API to control the measurement streams are working correctly.

Test number:	UR_3
Requirement:	Response messages
Description:	The user should be displayed with appropriate response messages for the functions chosen.
Test:	To check whether the user is displayed with the appropriate return message. In Terminal or Browser type, curl http://localhost:5000/startsream/<stream> This should return: "…bitrate stream <stream> started…" curl http://localhost:5000/stop This should return: "…bitrate stream killed…" curl http://localhost:5000/addstream/<streams> This should return: "…adding bitrate streams <streams>…" curl http://localhost:5000/deletestream/<streams> This should return: "…bitrate stream <streams> deleted…" curl http://localhost:5000/changestream/<stream> This should return: "…bitrate stream changed to <stream>…" curl http://localhost:5000/showstream This should return: "…running bitrate streams <streams> …" Note: Trying to Start/add/change already running streams or trying to delete unavailable streams will display appropriate return messages.
Expected Result:	User should be able to see the return message for the chosen function.
Test outcome:	Return messages for all the functionalities are being displayed properly.

Test number:	UR_4
Requirement:	Retrieve data from database
Description:	The user should also be able to retrieve the measurement data stored in the influx database.
Test:	To check whether the data in the database is accessible to the user or not. In Terminal type, curl -G 'http://localhost:8086/query?pretty=true' --data-urlencode "db=<database-name>" --data-urlencode "q=SELECT * FROM bitrate"
Expected Result:	The values stored in database should be displayed.
Test outcome:	The values in the database are being displayed.

Test number:	UR_5
Requirement:	Display the desired streams
Description:	The user should be able to select specific tags corresponding to specific streams which are to be displayed in Grafana.
Test:	To check whether multiple desired streams are being displayed distinctively or not. In Grafana select the tags corresponding to the required stream. The tag keys are the stream names. Ex: The tag key-value pair for stream 01::02 is shown as tag (01::02) and the tag value is 02
Expected Result:	The graph for multiple streams should be displayed in multiple colours.
Test outcome:	When multiple streams are running, Separate tags for corresponding streams are created automatically and graph is also displayed in multiple colours.

Test number:	UR_6
Requirement:	User manual
Description:	User should be provided with a manual to handle the product.
Test:	To check whether all the instructions provided in Readme are mentioned clearly and are applicable.
Expected Result:	The user should be provided with the Readme manual.
Test outcome:	Readme manual is clear with the instructions.