

Reviewer Report

Title: "GUIDock-VNC: Using a graphical desktop sharing system to provide a browser-based interface for containerized software"

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Reviewer name: Peter Li

Reviewer Comments to Author:

This well-written manuscript is a report on GUIDock-VNC, a layer of software for use inside Docker containers to allow bioinformatics applications to export a GUI via a web browser using the VNC protocol. A use case is also presented showing how GUIDock-VNC can be applied to a bioinformatics tool called CyNetworkBMA, allowing users to interact with its Cytoscape GUI from within a web browser to load interaction data and infer gene networks from it.

From a reproducibility point of view, I feel that the authors have done an excellent job in providing the documentation for me to use the CyNetworkBMA application through GUIDock-VNC. I was able to run CyNetworkBMA locally on my Mac Pro desktop PC using Docker Tool with their biodepot/novnc-cynetworkbma Docker image. In addition, I was also able to deploy their Docker image on the AWS cloud using an EC2 virtual server running Ubuntu and access the CyNetworkBMA Cytoscape GUI on a web browser from my office computer.

The authors cite their previous work published in PLOS ONE earlier this year on GUIDock which, like the current manuscript, is also a framework for delivering GUI applications from Docker containers and its use has been demonstrated with the CyNetworkBMA application. The difference is that GUIDock uses an X11 implementation so I did wonder if the new GUIDock VNC implementation is sufficiently new work which merits publication in GigaScience? The authors also compare and contrast the differences between GUIDock-X11 and GUIDock-VNC in the current manuscript, looking at issues such as security, network performance and cloud deployment. Since I think that GUIDock-VNC is a well-presented piece of work, I am inclined to accept it for publication but I suggest that the editors consider the same issue I had.

Manuscript correction

Page 11 line 33 - "passon" should be "pass on"

Level of Interest

Please indicate how interesting you found the manuscript: An article whose findings are important to those with closely related research interests

Quality of Written English

Please indicate the quality of language in the manuscript: Acceptable

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