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Building a computer cluster for bioinformatics and biomedical research from zero to production

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To build a computer cluster for bioinformatics and biomedical research is a very complex task. Such cluster has to seamlessly combine different types of the software stack which is used for computations and it should provide the easiest way for organizing complex workflows for scientific research. On the other side it has to be as simple as possible for usage to allow researchers with no or basic knowledge in information technology to perform their tasks.

This work present one of the possible architecture for a such system and a cluster software stack which could be used to build and operate it using a computer cluster of the Institute of Translational Medicine from Pirogov Russian National Research Medical University as an example.

Summary

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