



JSC-Cloud Project Proposal

Period

Give the granting period you apply for (month year - month year). Duration is limited to max one year. Afterwards you can apply for an extension.

Project title

Title as given in the online proposal

Type of project

Either "new project" or "project extension"

Cloud system(s)

Please name the Cloud system(s)/module(s) for which you are applying

Project ID or Project Acronym

Please provide in case of a project extension

Principal investigator

Name, affiliation, address

Project contributor(s)

Name, affiliation, address

The length of the project description should be at least 2 pages and is limited to a maximum of 12 pages (font 11 pt)!

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1 Introduction

Give a short outline of the scientific background of your research, including references.

(about 0.5 page)

2 Preliminary Work

Provide a brief summary of your preliminary work in connection with the proposed project, including references documenting the experience and preliminary work of the PI and project contributors in the field.

(up to 1 page)

3 Description of the Project

3.1 Project Details

Describe your research project in detail, structured in sub-projects, if applicable. Please include the following points:

- *Scientific questions you want to address*
- *Scientific objectives*
- *Computational objectives*
- *Approach and expected outcome*
- *Expected impact on the research area*
- *Scientific and technical innovation potential, impact and topicality*

(1 to 2 pages)

3.2 Review Processes

Has the underlying research project already successfully undergone a scientific review process? Is the project funded by public money? If yes, please also provide information about the funding source (e.g. State, BMWi, BMBF, DFG, EU, ...)

4 Numerical Methods and Algorithms

If applicable describe the numerical methods and algorithms that you are planning to use, improve, or develop.

5 Cloud Resources

5.1 Overview of VMs and services

Describe **all** applications, packages or services that you need to undertake the project, and how these will enable the research to be achieved. Include for **each VMs to be used** information about (if applicable)

- Which VM flavor and OS will be used
- On which virtual machine the application will be used (CPU VM, NVMe VM GPU VM, etc. or combinations, if applicable)
- What service/workload/container should run on each VM
- The amount of vCPU and memory necessary (for each VM)
- The amount of volume storage necessary
- The need and use-case for additional hardware, such as NVMe or GPU (if applicable).
- Plots **and/or** tables with the services, workload or containers running on each VM.

If you use third-party applications, include

- Name, version, licensing model and conditions
- Web page and other references
- Contact information of the code developers.
- Your relationship to the code (developer, collaborator to main developers, end user, etc.)

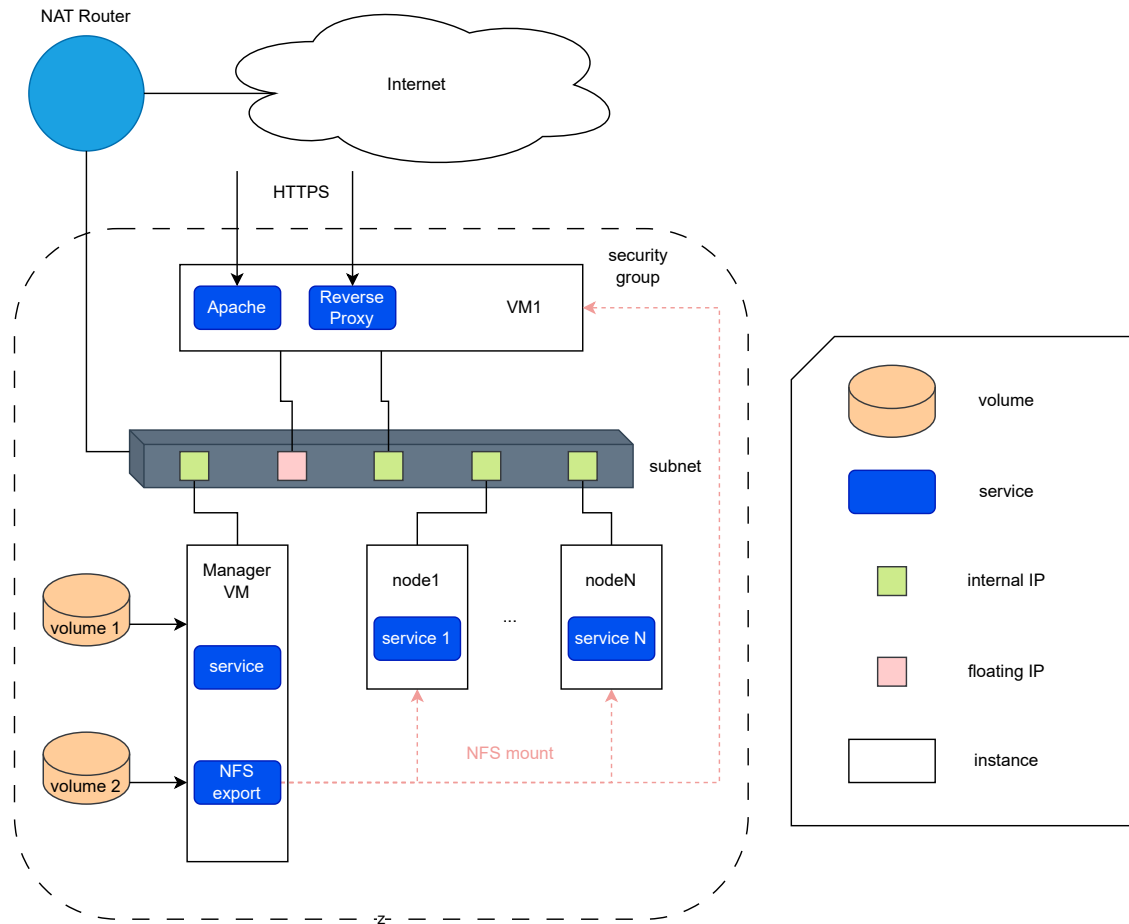


Figure 1: Example service diagram of application on cloud project at cloud system. Please note that you can use drawio or inkscape to edit the diagram.

(1 to 2 pages)

5.2 Justification of resources requested

Outline the amount of Cloud resources you request for the current granting period.

Table 1: The following Cloud resources are requested

Resource Types	Request
number of VMs	
number of vCPUs	
RAM (GB)	
Volume Storage (GB)	
number and kind of GPU ¹	
number of floating IPs	

(0.5 to 1 page)

6 Key Personnel and Experiences

Give a short introduction of the key persons involved in the project and their experience (max 3 persons).

(half a page)

7 Bibliographic References

Provide recent/most important bibliographic references that are relevant to the project and document the experience and preliminary work of the PI and project contributors in the field.

¹Currently NVIDIA V100 16 GB and NVIDIA A100 80 GB are available in the JSC Cloud