### Starting Grant Application form: Cloud component of the Flemish Tier-1 supercomputing platform

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| Title of the application:  Applicant name, first name:  Institution:  Research group / department:  E-mail address:  VSC id of the applicant:  **Disclaimer** Only a limited amount of resources, subject to availability, can be made available in an approved Tier-1 Cloud Starting Grant, allocated for a period of 8 months.  |

1. Motivate your application: why specifically do you want a Starting Grant on the Tier-1 Cloud component?
2. The applicant will be responsible to manage the Tier-1 cloud resources within the framework of this Starting Grant. This includes a.o. updating software packages, operating systems, containers, …

The applicant is responsible for installing a secure authentication method for possible trial end-users of the services deployed by the applicant on the Tier-1 cloud infrastructure as part of this Starting Grant.

The applicant needs to declare to agree with the UGent AUP.

1. Provide information about the main software packages and/or services that will be installed, configured and maintained by the Applicant:
* Operating system to be used inside the VMs (e.g. CentOS, Ubuntu, Windows, …)
* Databases (e.g. MySQL, Postgres, …)
* Orchestrators (e.g. Kubernetes ...)
* Other software packages and/or services.

For all software state that the associated license can be validly used by all mandated users on the desired Tier-1 Cloud VMs. Add a copy of the signed license to this application where relevant.

1. State which resources you are applying for. Start by using Table 1 to summarize the resources requested for the project.
* Do you need access to a shared filesystem between VMs (via NFS for now)? If so, state the required size (in GB).
* Do you need VSC network access? This is mainly needed when you intend to do high data volume reshuffling between VMs and other Tier-1 components (e.g. when you want to connect to the VSC Data component with iRODS and Globus from your VMs) or Tier-2. If so, you will receive a block of eight IPv4 IPs.
* Do you need public network access? By default every project is granted 1 IPv4 public IP address. If you don’t need this e.g. because you will connect via the VSC network, please clarify this. If you need more than 1 public IP address, please motivate why the standard port-forwarding is not an option.
* Indicate the total required size (in GB) of the persistent local disk space, summing over all VMs. You will be able to distribute this local disk space allocation at will between the persistent volumes of your VMs.
* Provide an indicative list of VM flavours that you would use to set up the workflow described in section 6. This list will be used by VSC to allocate vCPU, vGPU and RAM quota, which you will be able to distribute at will between your VMs, should you need more flexibility later on in the project.
	+ The flavours of the virtual machines are appropriate for different workloads: CPUv1 for regular CPU usage, GPUv1 for GPU computations, or UPSv1 for VMs that need to be connected to an uninterruptible power supply. CPUv1 and GPUv1 virtual machines are not supported by an UPS and will go offline when an unexpected power cut occurs.
	+ The VM flavours come in different types (e.g. nano, medium, large, 2xlarge, etc.) which have different vCPUs, vGPU and RAM specifications.
	+ You can find a list of all available flavours and types in the Tier-1 Cloud documentation at:
		- <https://hpcugent.github.io/vsc_user_docs/pdf/intro-Cloud.pdf>
* Once your project is accepted, it is possible to request minor changes of the allocated resources by motivated request to cloud@vscentrum.be (subject to availability).

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| **Project wide resources** |
| Shared filesystem size (in GB) | YES (size) / NO |
| VSC network access | YES / NO |
| Public network access | YES (1 public IP) / NO |
| Total persistent local disk space size (in GB), summed over all VMs | (size) |

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| Responsibility in workflow | VM flavour.type | Number of VMs needed | Period |
| M1-M8 |
|  |  |  | [ ]  |
|  |  |  | [ ]  |
| Example: |  |  |  |
| Database server | UPSv1.medium | 1 | [x]  |
| Analysis virtual machine | CPUv1.small | 3 | [x]  |
| Visualisation frontend | CPUv1.large | 1 | [ ]  |

Don’t hesitate to consult the Tier-1 Cloud support when you are preparing your application: cloud@vscentrum.be