

# Planning Extensions to OCCI

## as foreseen by EGI and INDIGO

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- Compute Resource Template Profile
- Compute Instance Snapshotting Extension
- Compute Export Extension
- Compute Instance Resizing
- Security Groups Extension

# Compute Resource Template Profile

An **EGI** Compute Resource Template Profile

- consistent set of named resource requirements
- A set of pre-defined resource templates with fixed “sizes”
  - Meant to simplify resource allocation and accounting.
  - Defines mixins with some custom attributes applicable to `infrastructure#compute` instances.

[https://redmine.ogf.org/attachments/178/  
draft-gwdr-drescher-occi\\_crtf-v1.pdf](https://redmine.ogf.org/attachments/178/draft-gwdr-drescher-occi_crtf-v1.pdf)



# Compute Instance Snapshotting Extension

An **EGI** Use Case:

*Support for users creating snapshots of running VM instances and make these available as first-class VM images that can be instantiated.*

Goal:

1. Making a snapshot of a compute instance
  - Choose method (live, deferred) by attribute
  - Create an OS template from the copied images
2. Obtain an identifier of the saved os template
  - So that it could be used, e.g., to instantiate additional compute resources

# Compute Export Extension

An **EGI** Use Case:

*Support for users creating snapshots of running VM instances and make these available as first-class VM images that can be instantiated.*

- Same Use Case as on the previous slide, implies snapshot export capability to allow distributing snapshots to other sites.

Goal:

- Instructing a CMF to upload existing snapshots to a given location
  - Intended primarily for exporting snapshots for use in other sites
  - What is the correct term. Compute snapshot? Image? Appliance?
  - Expose or upload?
  - How to return links?

# Compute Instance Resizing

An **EGI** Use Case:

*Support for changing attached resources to an executing compute instance.*

Goal:

- Support replacing resource templates for an existing compute instance
- Current assumption: no need for an extra extension
  - Clarify wording in OCCl 1.2 – resource\_tpl mixins replace each other, thus “resizing” the target compute instance

# Security Groups Extension

## An **INDIGO** and **EGI** Use Case

- Definition & discovery of networking restrictions to be imposed on a compute resource
  - Open/closed ports
  - Access rules
- Perhaps adopting the current *occi-os* approach?
  - Security groups mixed into compute instances
    - ... and rules.
  - **limitation:** applies to the whole compute resource, cannot be defined per interface
  - **Discuss!**

– That's all for today –