Image metadata in FedCloud

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Objectives

To have common, useful image metadata at all sites

Unify metadata of images on all sites

Objective: to have the same metadata format at all sites.

But currently:

- Some sites have image attributes nested in APPLIANCE ATTRIBUTES
- Some sites have image attributes directly as properties

- => Should be unified
- => The second option should be preferred: better visualization, easier processing

Choose better names/values for attributes

Objective: names and values of attributes should be both human-readable and suitable for machine processing.

- Encrypted names of Hepix group are difficult to understand, even for site admins
 - The Hepix Virtualization Working Group repository in GitHub has two members and inactive for long time https://github.com/hepix-virtualisation
- Current APPLIANCE_ names seem more sensible and could be adopted as standard
- Some values of APPLIANCE_ could have better formats:
 - "APPLIANCE_RAM": "1073741824", could be simply "1024"
 - In OpenStack, RAMs in flavors are defined in MB, and Disks in GB
 - "APPLIANCE_EXPIRATION_DATE": "1641506400", could be simply "2022-01-06"
 - It is important that the strings are comparable for machine processing, e.g. definitely not "06-01-2022".

Clean - Remove duplicated and unused attributes

Objective: to define a set of minimal, mandatory attributes

- Some attributes are duplicated:
 - "ad:mpuri", "APPLIANCE_MPURI", "vmcatcher_event_ad_mpuri"
- Some attributes are irrelevant at site level.
 - o "hv:format": "OVA",
 - o "hv:hypervisor": "VirtualBox",
- Would be no problem if unused image attributes are set at sites,
- But we should make clear what attributes are mandatory and what are not

Enforce monitoring

Objective: to ensure that images on all sites have compliant metadata

- Some sites do not have images from AppDB for common VOs
- Some sites do not remove outdated images
- Some sites may have metadata in other format

=> Some checking for EGI-controlled VOs could be useful