

# Enhancing Grid Infrastructures with Virtualization and Cloud Technologies

# Marketplace: Registry for Machine & Disk Images

Making secure machine images for virtualized and cloud infrastructures remains a significant hurdle for wider adoption and use of these technologies. The StratusLab Marketplace lowers this barrier by facilitating the sharing and reuse of existing images.

#### **Benefits for End-Users**

Scientists, engineers, and other users of StratusLab cloud infrastructures can browse the Marketplace to find existing images that have the operating systems and applications to run their analyses, saving them the time needed to create their own images.

### **Benefits for Image Creators**

People creating machine and disk images can publish metadata about them in the Marketplace, making them accessible to a wider audience and soliciting feedback to further improve those images.

#### **Benefits for Cloud Administrators**

Those running cloud infrastructures can use image metadata from the Marketplace to evaluate whether they can trust a particular machine or disk image, banning if necessary, images which do not meet the administrator's requirements.

#### **Image Contents**

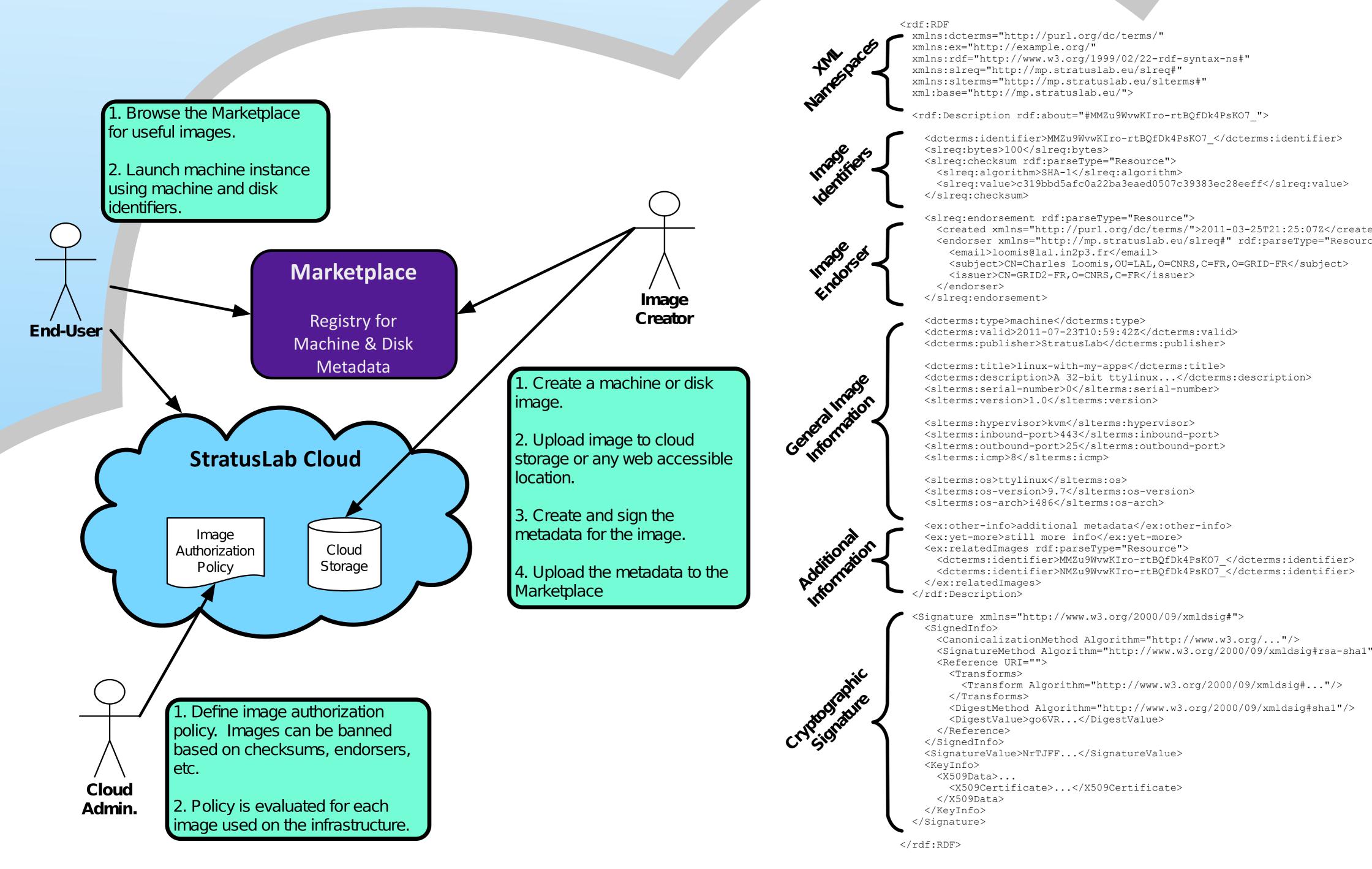
Contents are uploaded into cloud storage or any other web accessible location; the Marketplace does not store the image contents. The link between the metadata and the image is based on the SHA-1 checksum.

#### Image Metadata

Existing standards have been used to provide a lightweight, extensible metadata format that allows searching and selection based on a variety of attributes. (See example below.)

## **Standards**

XML (W3C) XML Signature (W3C) RDF-XML (W3C) Dublin Core Metadata (DCMI)









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