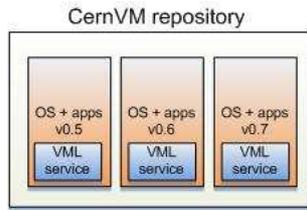


## VML ARCHITECTURE V2

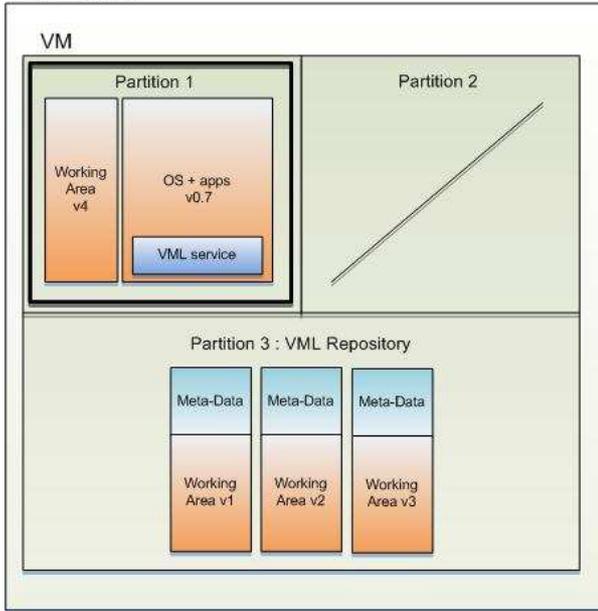
- The virtual machine disk is composed of three partitions :
  - Partition 1 & 2: working partitions. One of those partitions contains the system (bootable partition). The other one is not used by the physicist for his work. It is used by VML to check out an entry.
  - Partition 3: VML repository.
- The CernVM repository contains, for each release:
  - The whole virtual machine in the different virtualization platform formats. (Currently realized)
  - An image file containing the whole file system. (To be realized)
- An entry in the VML repository contains:
  - The working area of the physicist
  - Metadata, i.e. some information about the working area, especially the version of the CernVM software.

### Use case

1. The physicist works on the 4<sup>th</sup> version of his project. He uses CernVM v0.7 in the partition 1.
2. He wants to restore the 1<sup>st</sup> version of his project. When he was working on this 1<sup>st</sup> version, he was using CernVM v0.5. He stores his 4<sup>th</sup> version into the VML repository and executes the checkout command of VML.
3. VML:
  - downloads the CernVM v0.5 software image file into the partition 2;
  - adds the working area v1 to the partition 2;
  - modifies the grub file to set the partition 2 as the system partition;
  - restarts the VM.
4. The physicist now works into the partition 2.



Host machine



VML commands:  
Add current work to VML  
Check out Working Area v1

→

Host machine

