



ALICE

A JOURNEY OF DISCOVERY

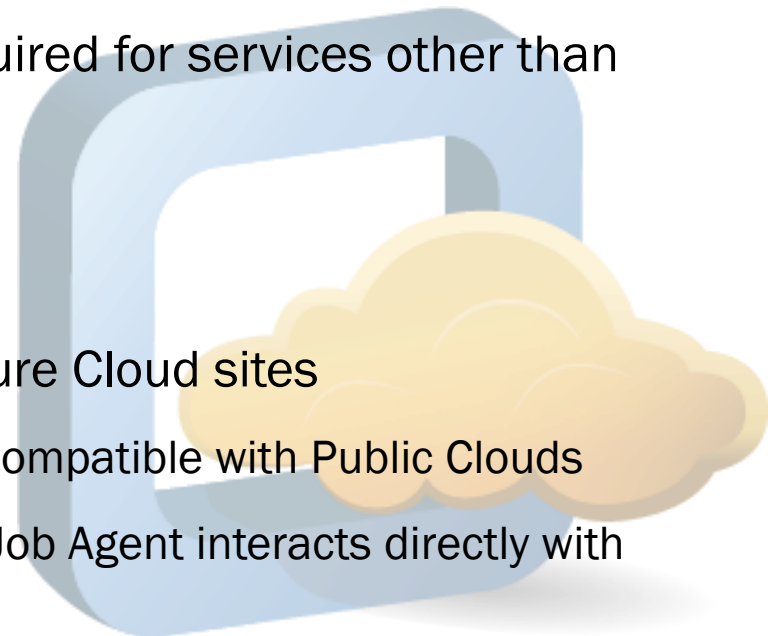
ALICE & Clouds

GDB Meeting

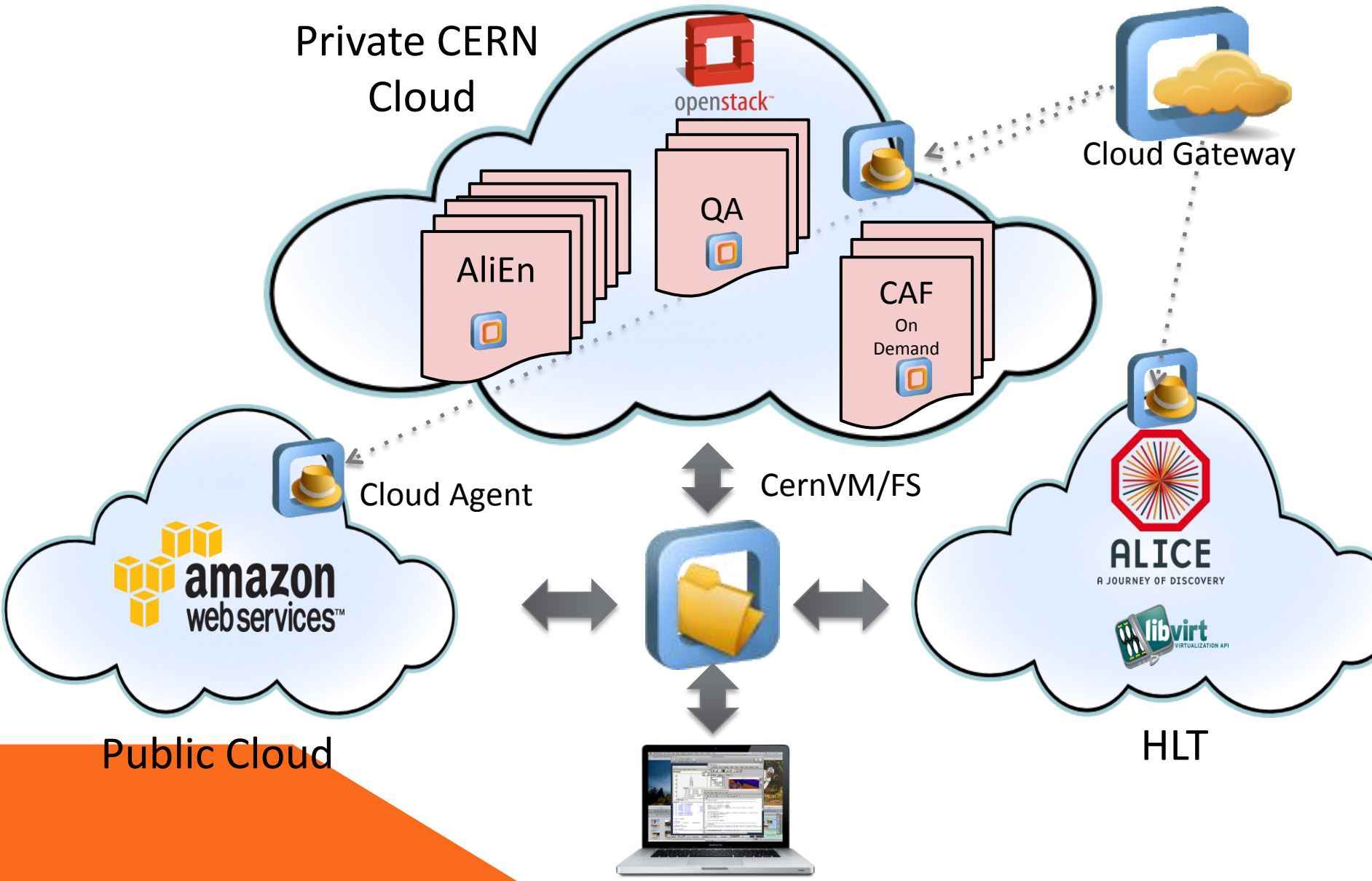
15/01/2013

Status

- As of now, no official strategy for use Clouds in ALICE
- Initial work has started in the context of enabling HLT farm for dual online/offline use (...)
 - Based on CernVM family of solutions
- The computing model of ALICE is relatively flat and Cloud friendly
 - Uniform data access using xrootd
 - Single task queue
 - Only outgoing network connectivity required for services other than storage
 - No real distinction between T1/T2
- We accept virtualized grid worker nodes
- In the future, we would welcome and use pure Cloud sites
 - Providing that they offer API compatible with Public Clouds
 - No need for batch, Job Agent interacts directly with Task Queue

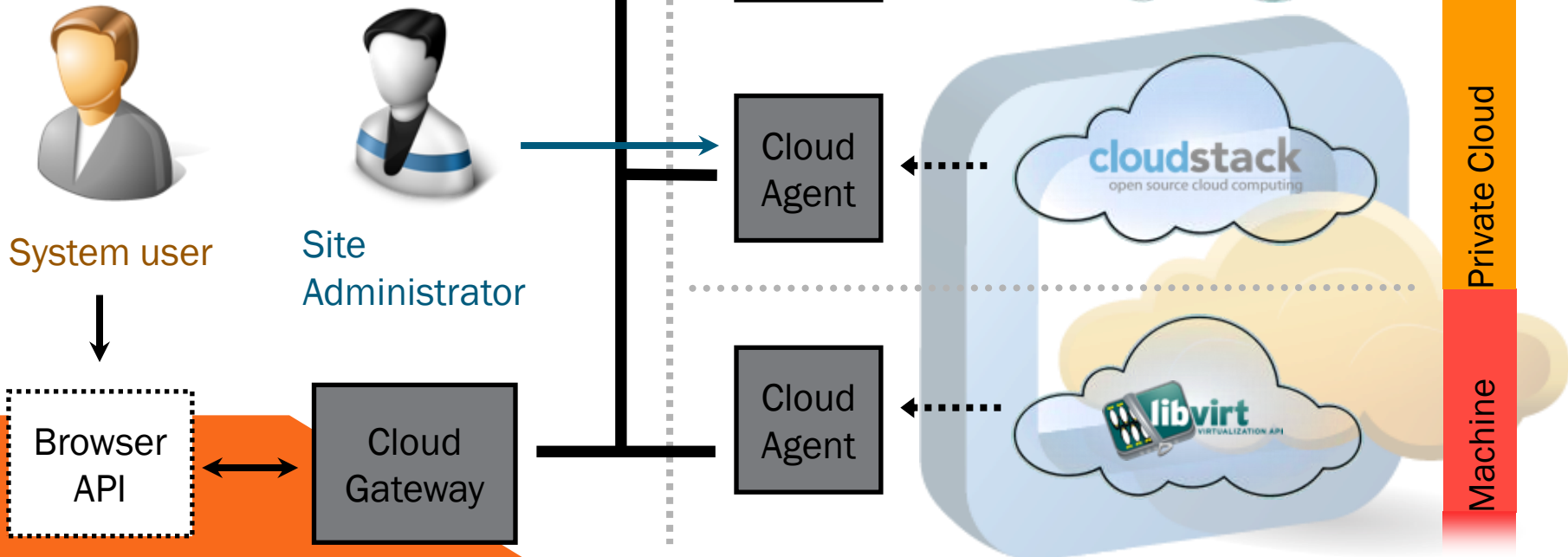


Vision



Managing many Cloud environment

- Cloud agents expose the resources available in the cloud.
- The users request resources via the gateway interface.
- The site administrators only takes care of the installation.



CernVM Online

The image displays two overlapping browser windows from the CernVM Online web interface. The top window is at the URL `https://cernvm-online.cern.ch/cluster/create` and shows the 'Create Cluster' page. The bottom window is at `https://cernvm-online.cern.ch/cluster/clone/6` and shows a 'Service details' modal dialog.

Top Window: Create Cluster

- URL: `https://cernvm-online.cern.ch/cluster/create`
- Logged in as: `icharala`
- Navigation: About, Dashboard, Documentation, Downloads, Publications
- Left sidebar: Commands (Dashboard, Pair an instance, Create Context, Create Cluster), Recent Definitions (Testing-new-features, Graphical, Batch, Head, HLT-Batch), Cluster Definitions (Test, HLT)
- Main content: 'Create Cluster' form with fields for 'Cluster name:', 'Description:', and 'Secret key:'. A 'Create cluster' button is at the bottom.

Bottom Window: Service details

- URL: `https://cernvm-online.cern.ch/cluster/clone/6`
- Logged in as: `icharala`
- Navigation: About, Dashboard, Documentation, Downloads, Publications
- Left sidebar: Same as the top window.
- Main content: 'Service details' modal dialog with the following fields:
 - Service key: Head
 - Context: Head
 - Template: CernVM 2.6.0 Batch Node
 - Min. instances: 1 (Fixed service)
 - Service offering: 512 MB RAM - 1 CPU
 - Disk offering: No disk
 - Network offering: No preference
- Bottom right: A table of services with columns for CPU, Operations, and Scalable services (Workers).

CPU	Operations	Scalable services (Workers)
512 MB RAM - 1 CPU	Del Edit	512 MB RAM - 1 CPU
512 MB RAM - 1 CPU	Del Edit	
- Buttons: Save, Cancel

Cluster definition

Conclusion

- We expect to live in mixed Grid/Cloud environment for some time
- Not an issue, Grid job or Cloud API are just the mechanisms to start Job Agent
- We plan to use CernVM family tools and collaborate with PH/SFT on developments
 - CernVM, CernVM/FS, CernVM Online, Cloud Gateway, Cloud Agent....
 - Contextualization, credentials

