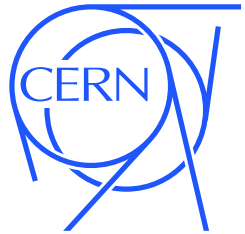

μCernVM – A Lightweight Virtual Machine Hosting ROOT

Jakob Blomer, Predrag Buncic, Ioannis Charalampidis,
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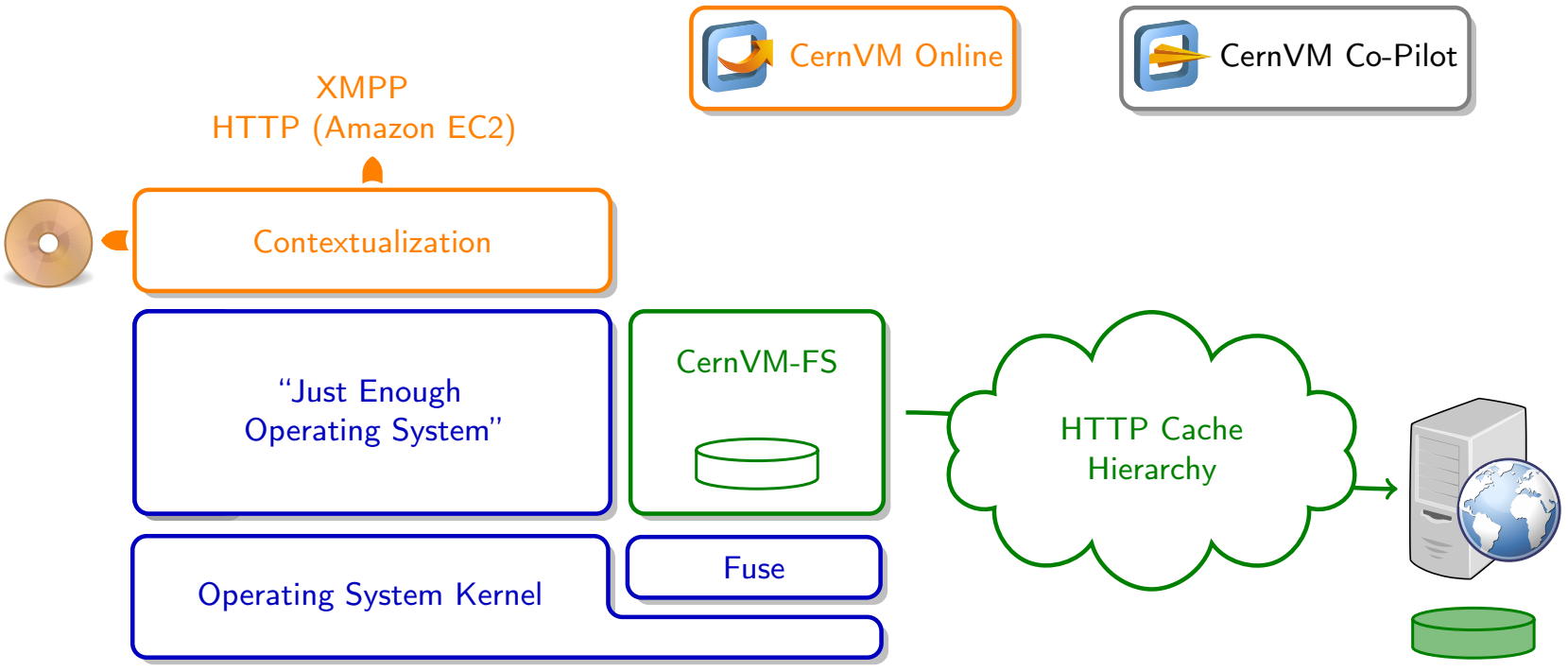
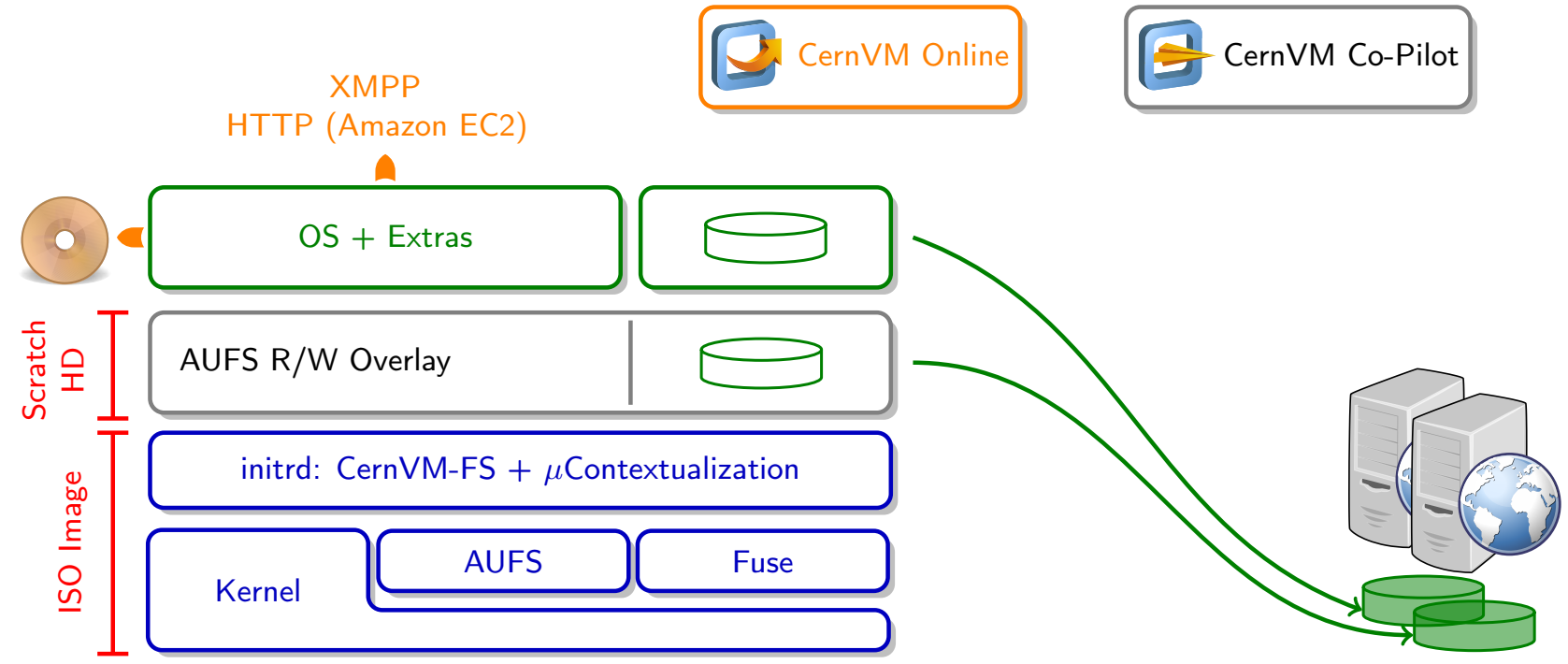
11th March 2013

Classic CernVM



- Uniform and portable environment for physics data processing
- Minimal operating system derived from application dependencies
- Easy to maintain and to distribute

μCernVM



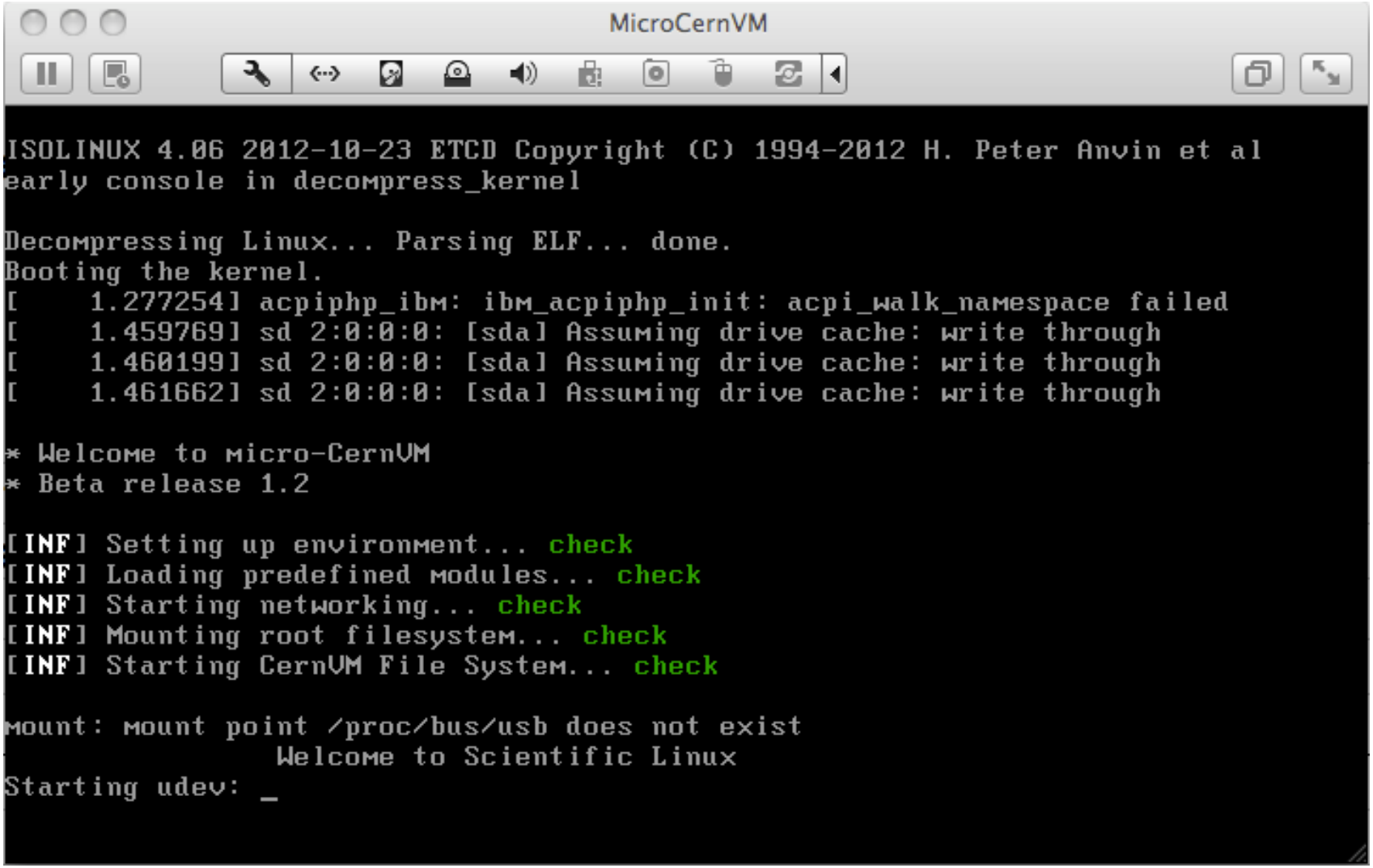
Idea: Operating system on CernVM-FS
Instead of 400 MB hard disk image: 10 MB ISO image + 100 MB cache.

- *Not* a LiveCD, *not* a diskless node

$\Rightarrow$ Operating System on Demand

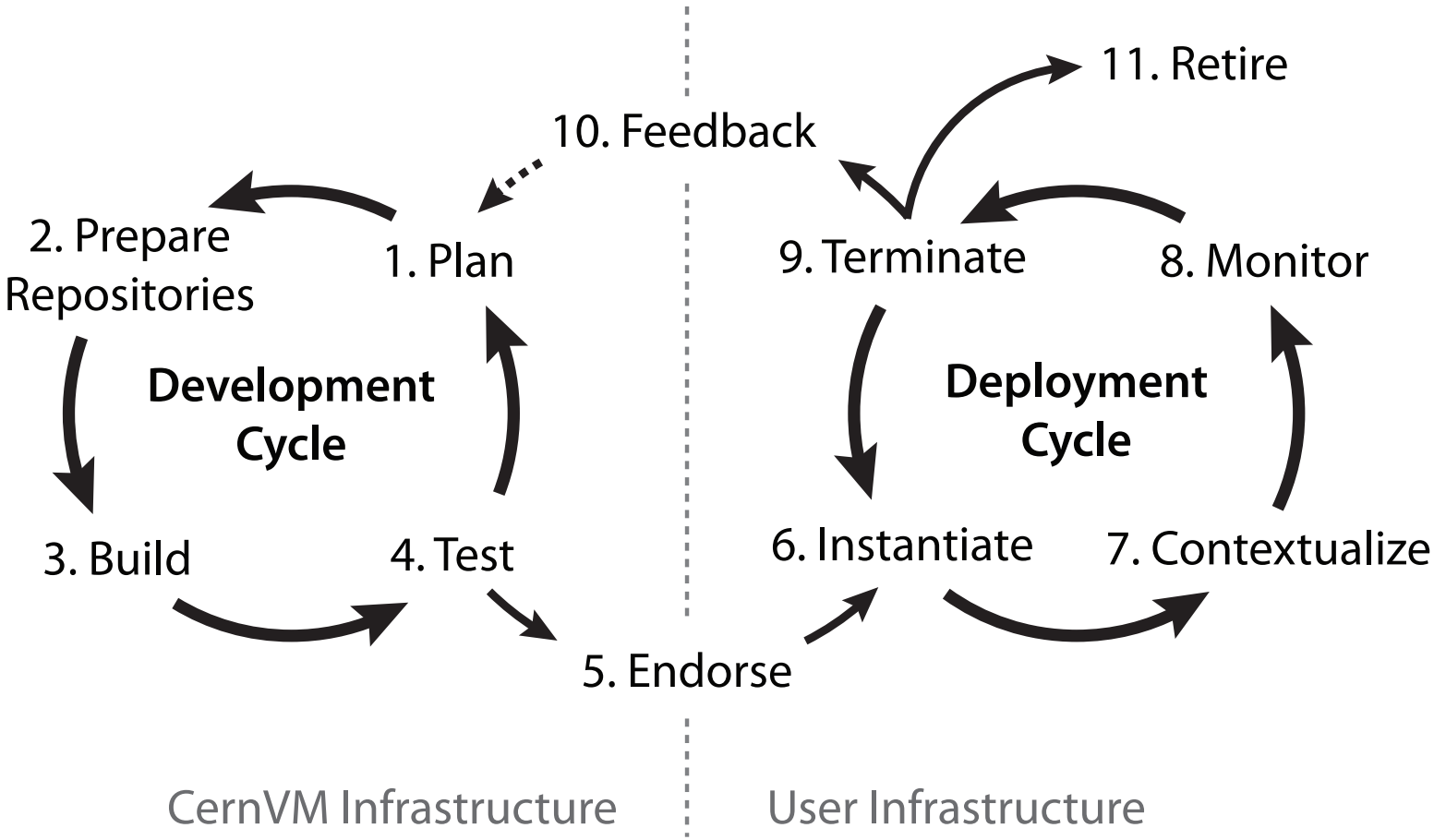
Booting μCernVM

Work in progress



μCernVM Changes the VM Life Cycle

Work in progress



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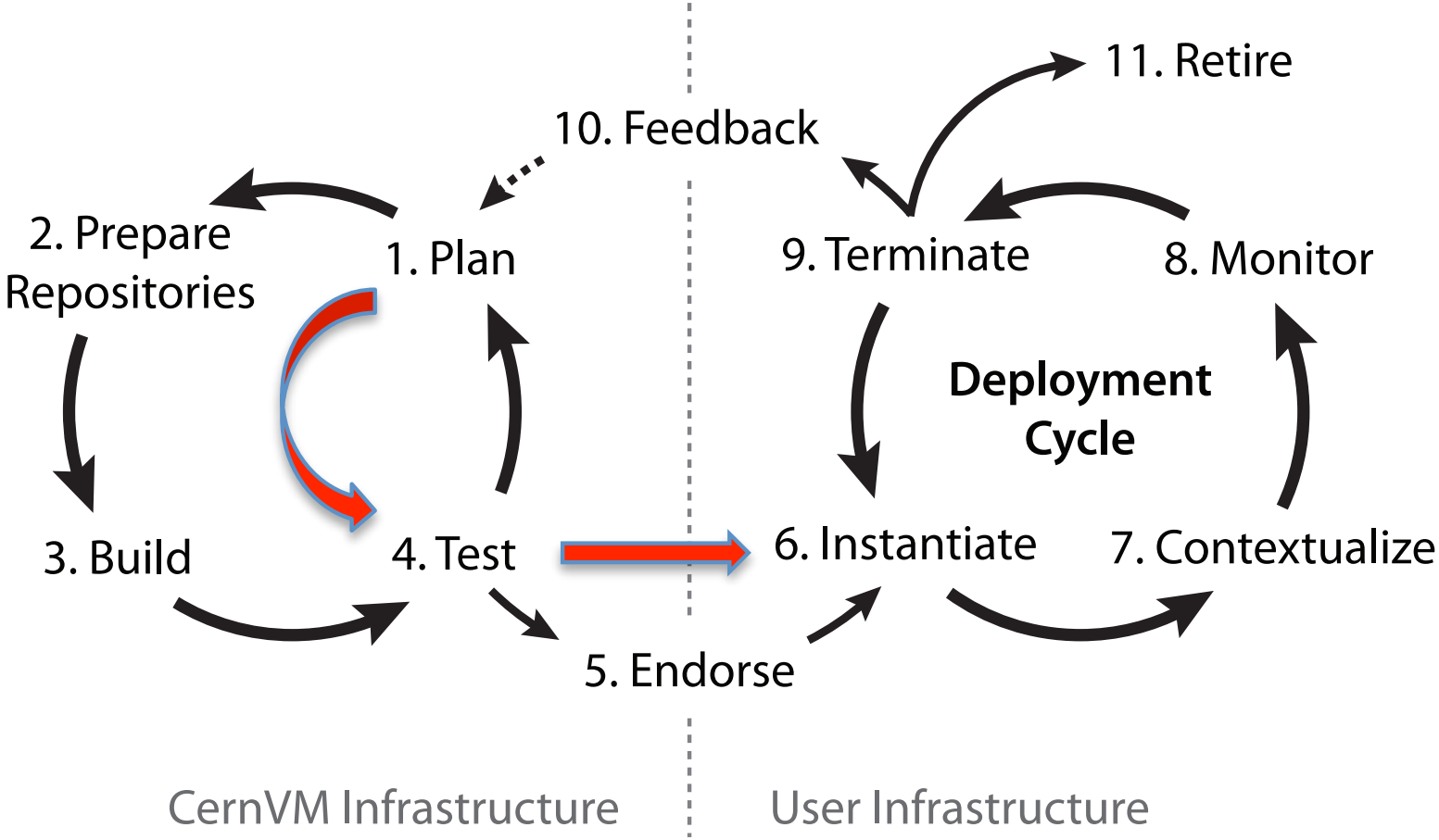


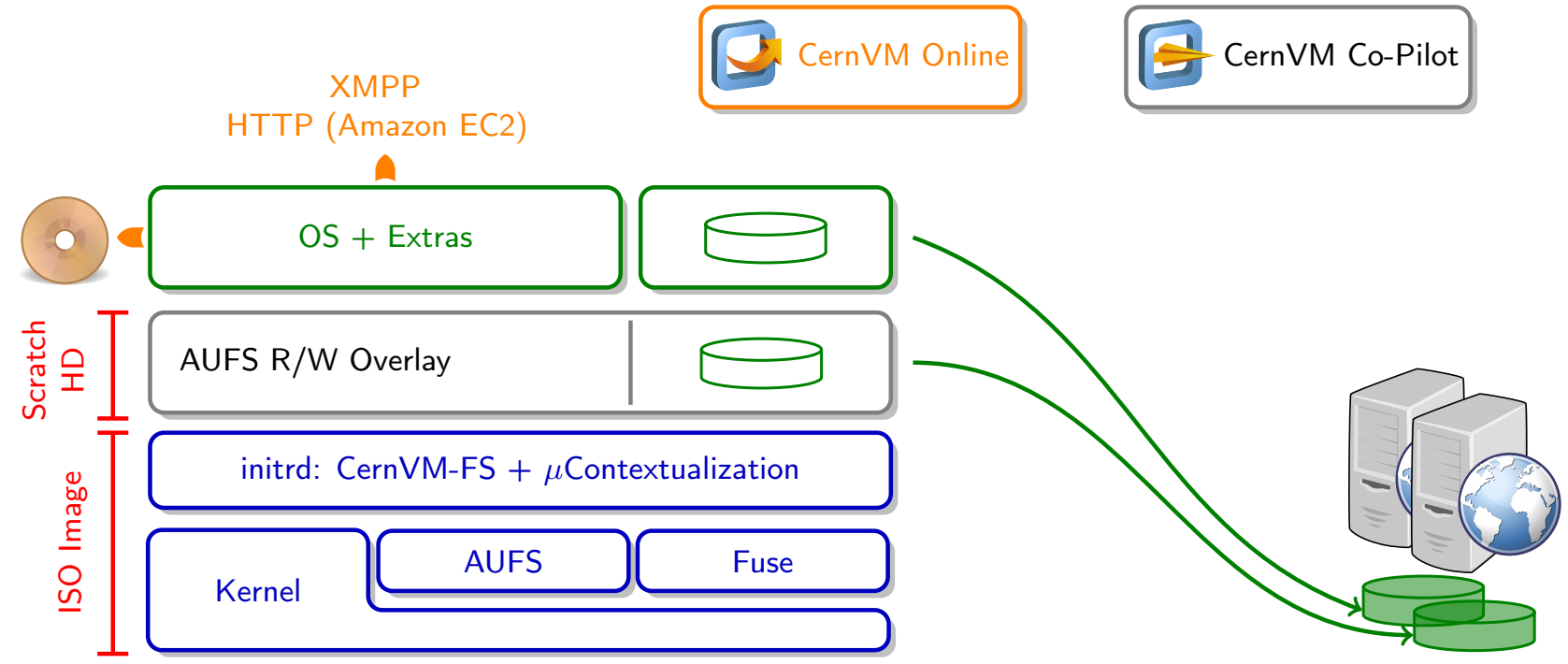
Avoids: Image Building

Solves: Image Distribution

Options for updating: **stay**, **diverge**, **rebase**

CernVM-FS snapshots facilitate **long-term data preservation**

μCernVM



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