

NetApp Virtual Storage Console

Integrating oVirt with Enterprise Storage

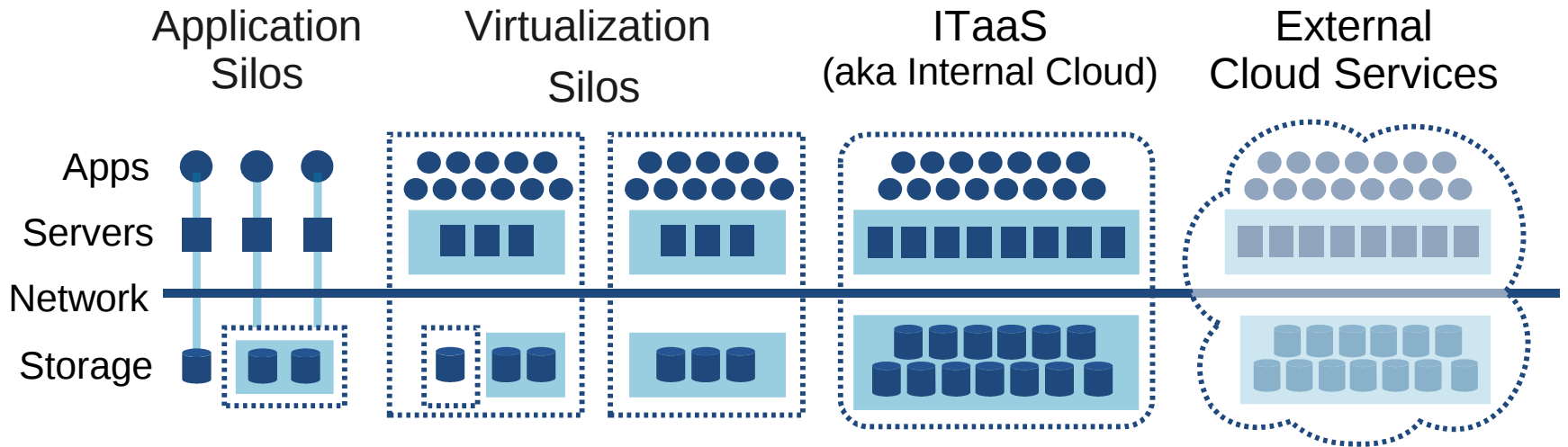
Jon Benedict - TME & Sr Virtualization Architect
@CaptainKVM, <http://captainkvm.com>

Chris Morrissey - VSC for RHEVM Lead Developer

Key Points

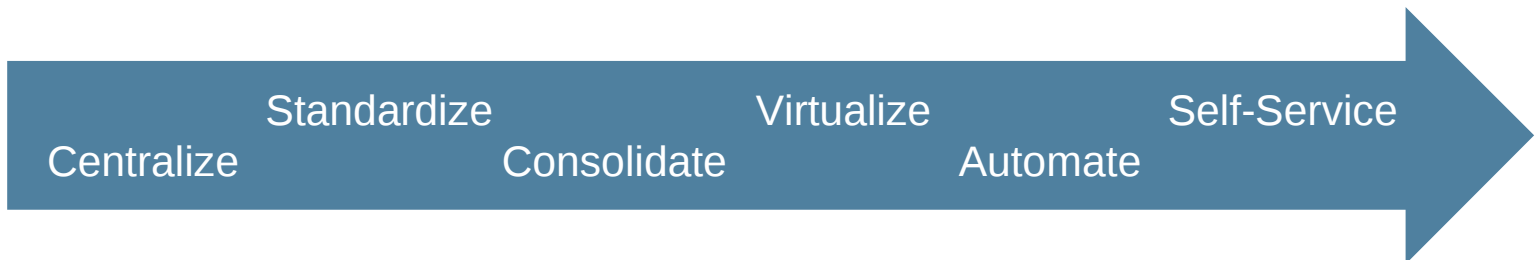
- NetApp view on virtualization
- VSC 1.0 capabilities
- UI plugin integration
- Future direction

NetApp View on Virtualization



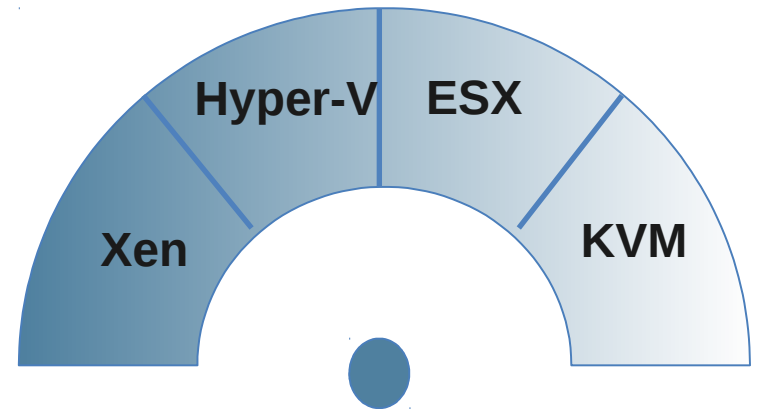
From **Silos**...

...to **Flexible IT**

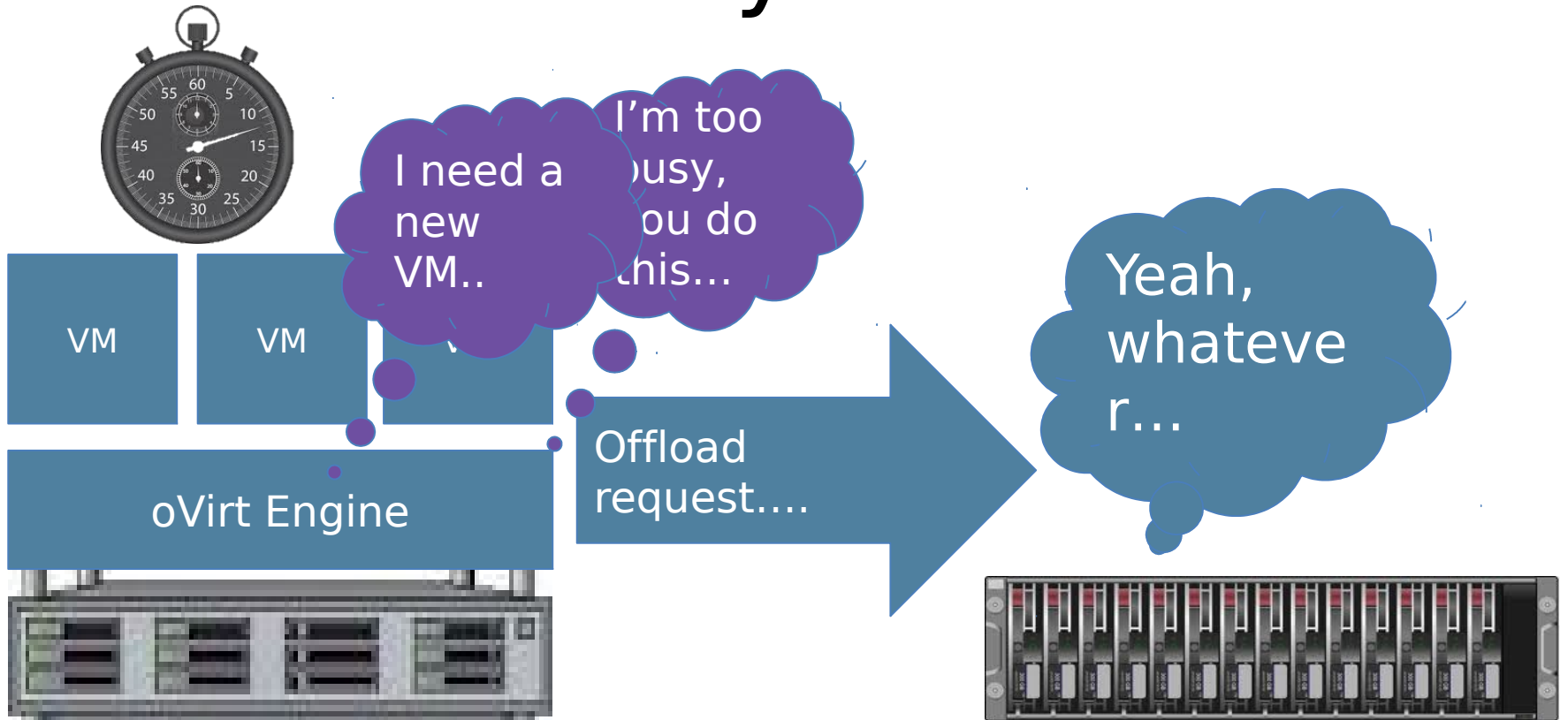


NetApp's interest in oVirt

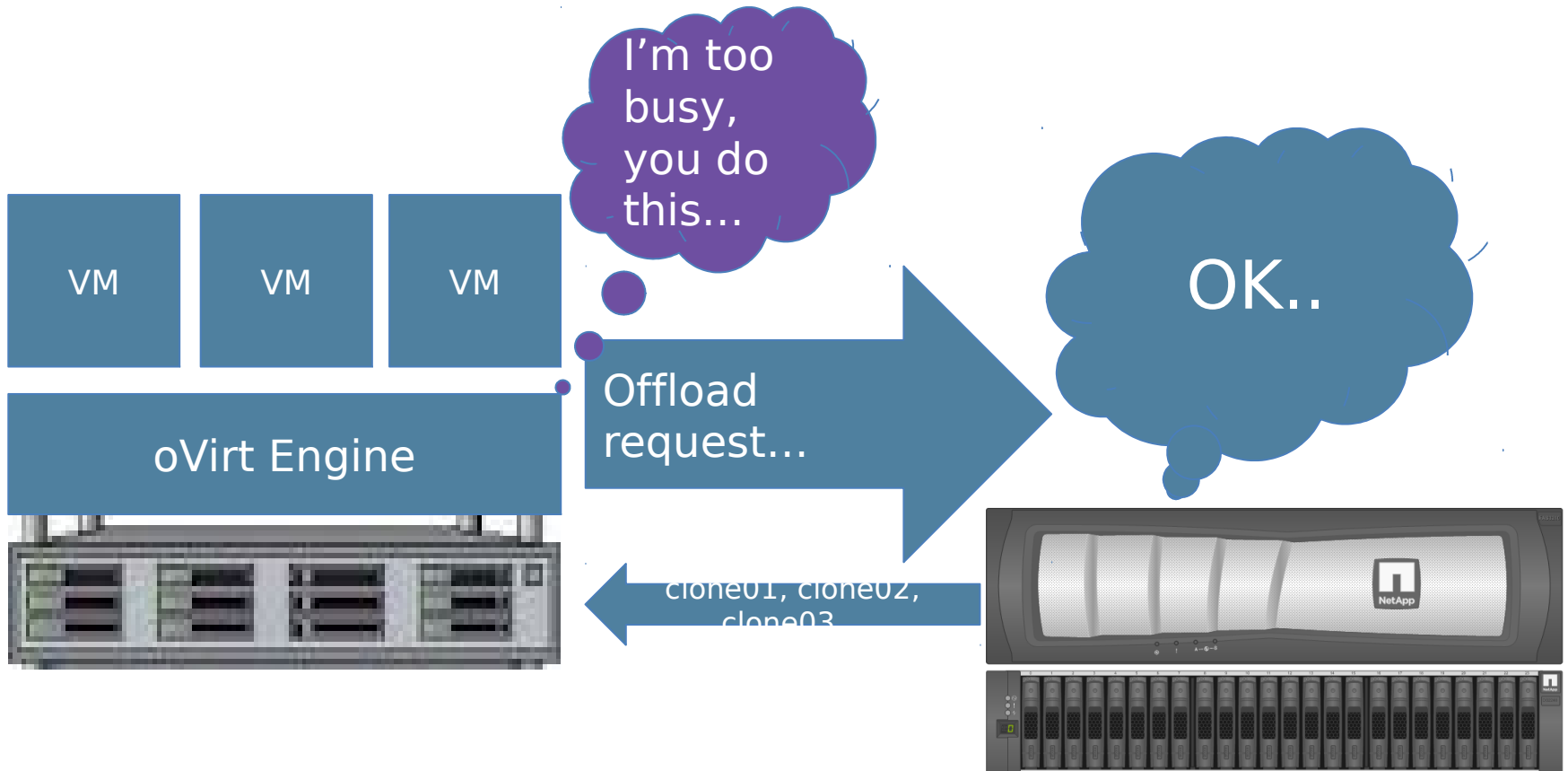
- Customer Choice
- Open Source Commitment
- oVirt Board Representation



Commodity Disk Shelf

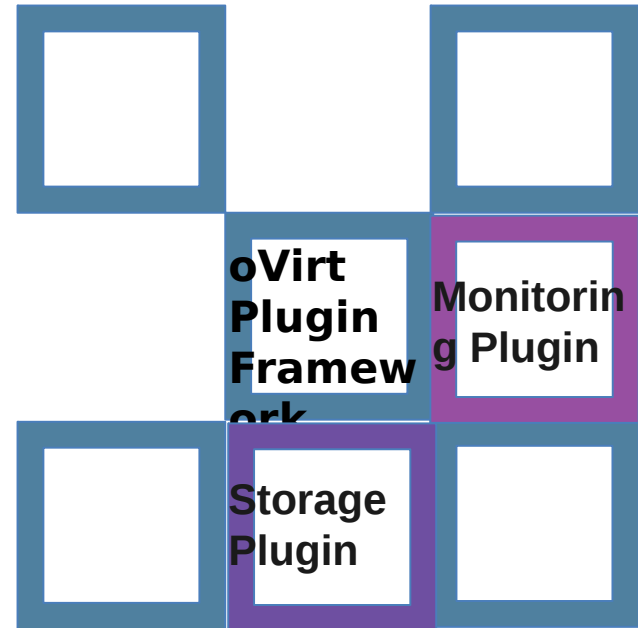


Enterprise Array



Plugin Framework

- Currently being dev'd by (Red Hat)
- Virtual Storage Console



Virtual Storage Console 1.0

- Provision storage domain
- Rapid cloning of virtual machines
- Manage available NetApp controllers
- NFS support only

Provision Storage Domain

- Storage domain may be created against any available controller
- Includes settings specific to a NetApp controller
 - Auto-grow
 - Thin provision
 - Aggregate selection

Rapid Cloning

- Creates FlexClones for the specified VM/Template
- Multiple clones in a single action
- Clones are created and ready in a matter of seconds

Manage NetApp Controllers

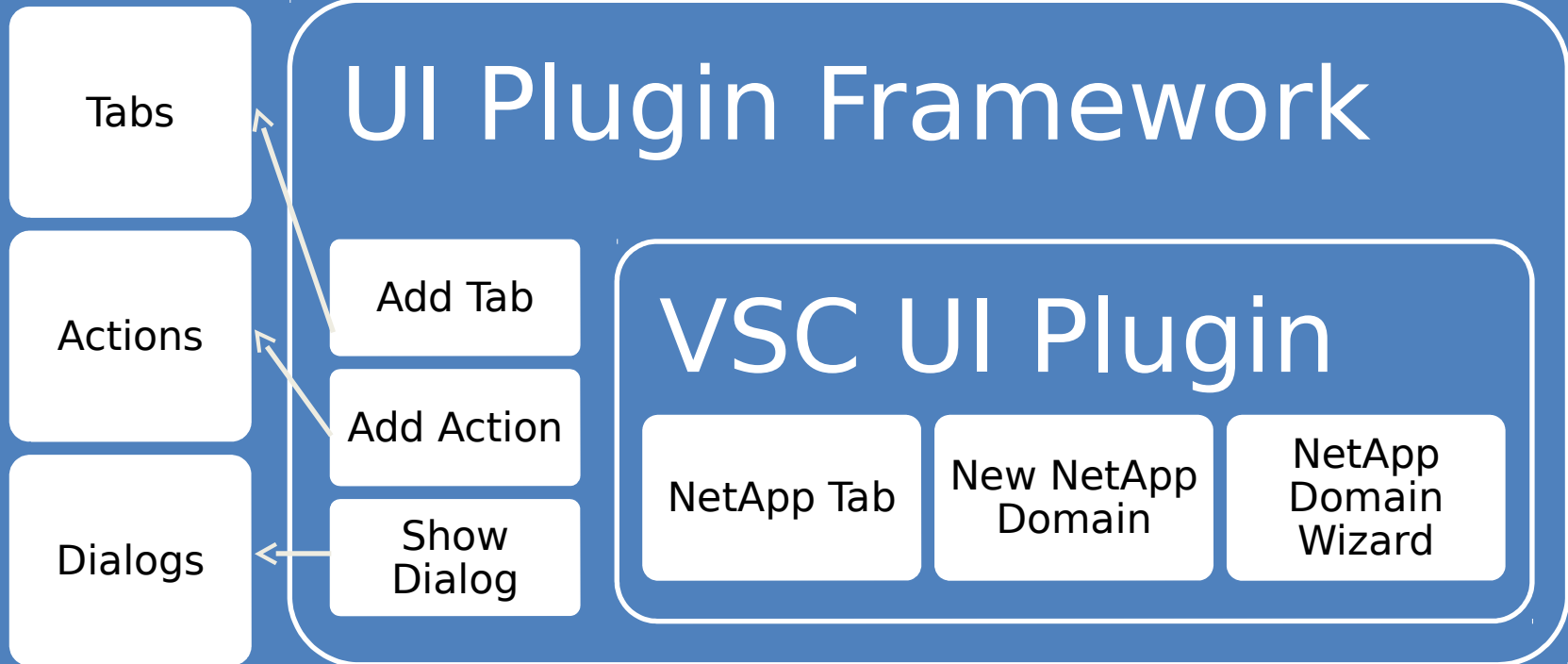
- Controllers shown in a NetApp tab
- Add/remove controllers for use in other actions
- View information about vServers and filers
 - free capacity
 - status

UI Plugin Integration

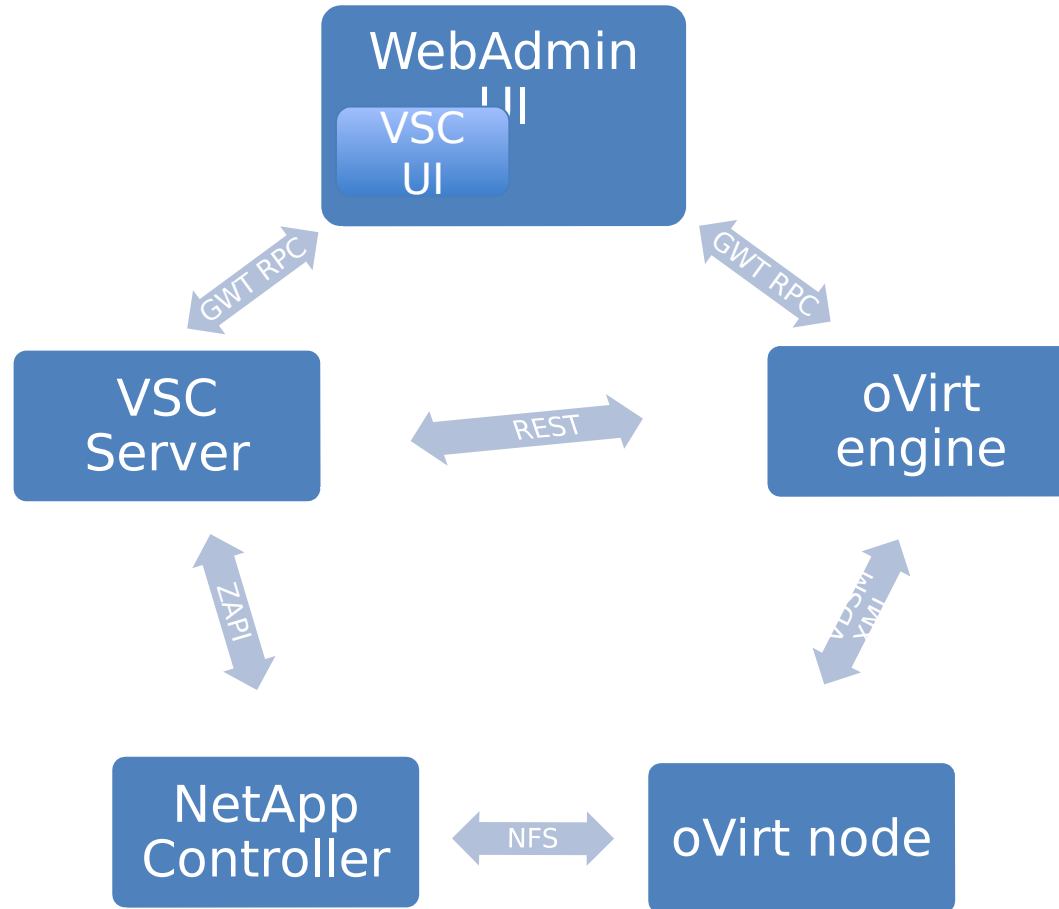
- NetApp capabilities plugged into oVirt UI using new UI Plugin framework
- Integration javascript lives on oVirt engine
- UI is served from separate NetApp VSC server

UI Plugin Integration

oVirt WebAdmin UI



VSC and oVirt Interactions



Demo Time!

Lessons Learned

- Having content loaded from separate domain will cause issues
 - Worked around using `Window.postMessage()` and REST API
- oVirt UI code base is large and complex
 - A deep knowledge of GWT and GWTP is necessary
- UI plugin framework is young and still being formed
 - On the plus side, we get to help form it

Future Direction

- SAN support for 1.0 functionality
- Looking at direct integration with VDSM and/or libstorage

Additional Resources

- vdsm-devel@lists.fedorahosted.org
- engine-devel@ovirt.org
- <http://communities.netapp.com>

Wrap-up

Offload!
!!!

Integration

Automation

Efficiency

Wider
Acceptance of
KVM

Thanks!

Jon Benedict

@CaptainKVM

<http://CaptainKVM.com>

Chris

Morrissey

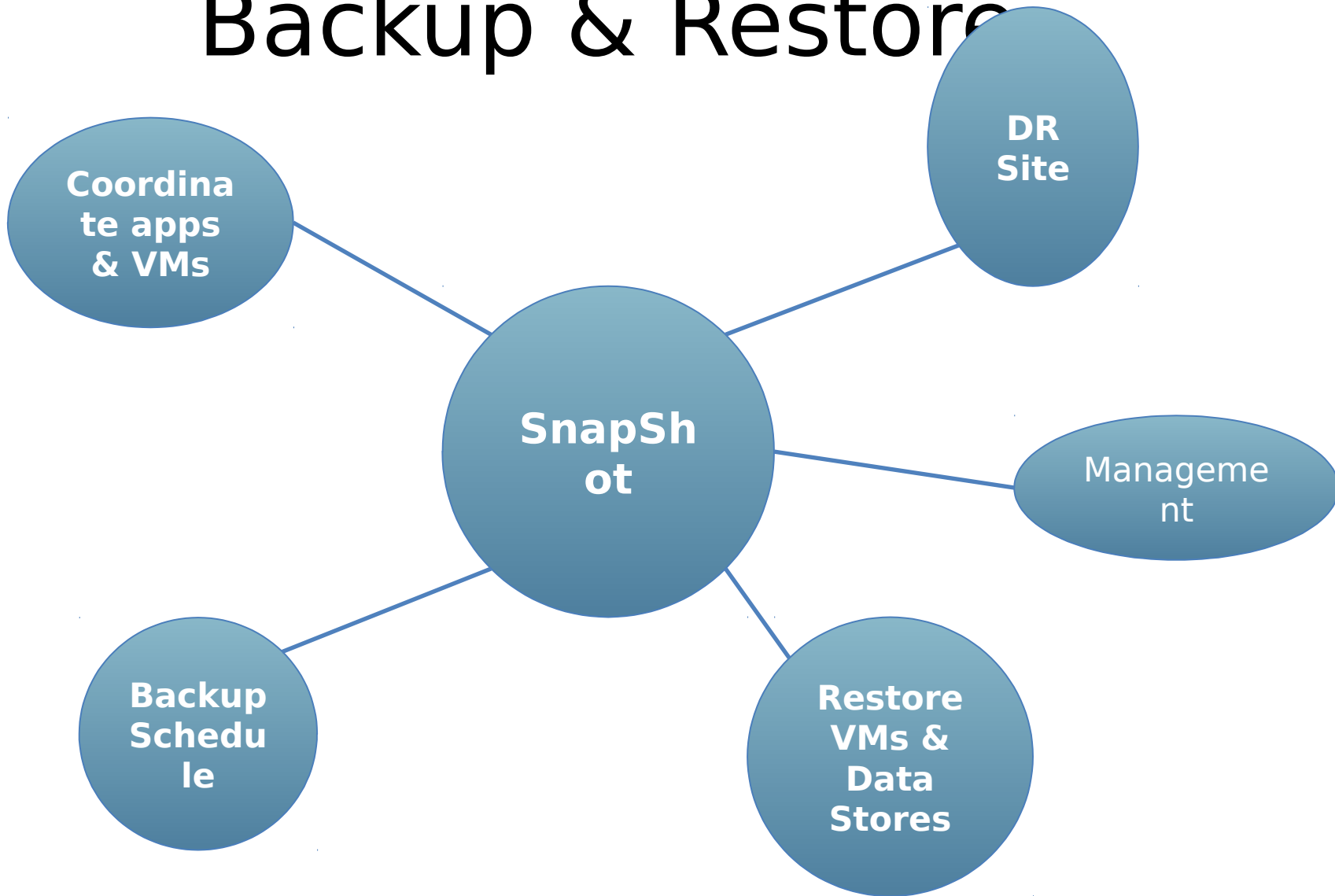
cmorriss@netapp.com

Backup Slides

VSC

The screenshot displays the oVirt Open Virtualization Manager interface. At the top, the oVirt logo is on the left, and a green button labeled "Open Virtualization Manager" is on the right. Below this is a search bar containing the text "Vms: cluster = Default". The main content area is titled "Virtual Machines" and features a toolbar with buttons for "New Server", "New Desktop", "Edit", "Remove", "Run Once", a play button, a pause button, and "Migra". Below the toolbar is a table with two columns: "Name" and "Cluster". The table is currently empty. On the left side, there is a "Tree" view showing a hierarchical structure: "System" (expanded) contains "Default" (expanded), which includes "Storage" and "Templates"; "Clusters" (expanded) contains "Default" (expanded), which includes "Hosts"; and "VMs" is highlighted at the bottom. A red text annotation on the right side of the interface reads: "On right-click of a vm: NetApp -> Clone Virtual Machine".

Backup & Restore

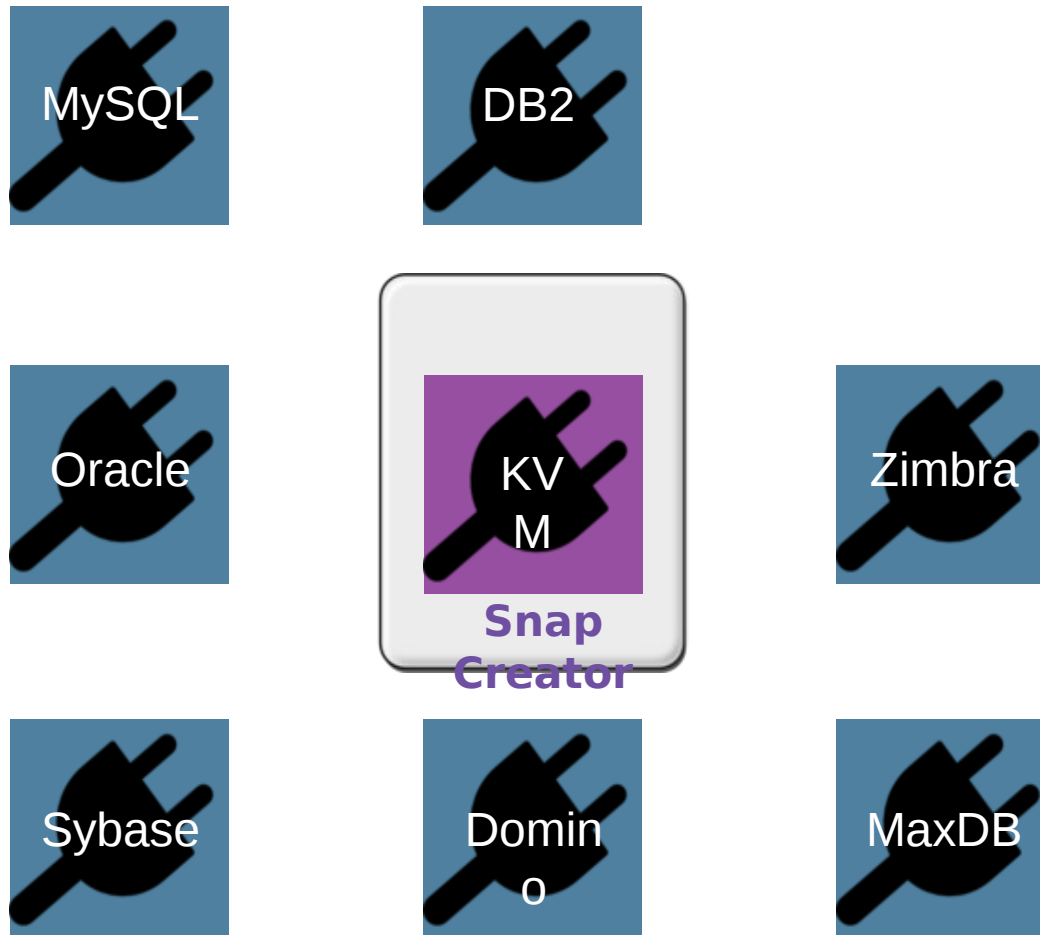


Snap Creator

The screenshot displays the oVirt Management interface. On the left, a navigation sidebar shows 'Management' with sub-items: 'Configurations', 'Schedules', 'Users', and 'Job Monitor'. The main area is titled 'Management Configurations' and is split into two panes: 'Backup Profiles' and 'Configuration Content'. Under 'Backup Profiles', a tree view shows 'KVMtest' expanded to reveal a 'kvm' profile. The 'Configuration Content' pane shows the configuration for the 'kvm' profile. An 'Actions' dropdown menu is open, listing various operations: LUN Clone, Volume Clone, Snapshot (highlighted), Restore, scdump, Discover, Archive Log, Quiesce, Unquiesce, Mount, Umount, and OSSV. The configuration details include a 'Reload' button, a 'Check' box, a text input field with '30', a dropdown menu with 'Yes', a 'Settings' section with an unchecked checkbox, a dropdown menu with 'HTTP', and a text input field with '80'. A 'Login Credentials' section is partially visible at the bottom.

Snap Creator Demo

KVM Plugin for Snap Creator



Stacked & Nested Configurations

