NetApp Virtual Storage Console

Integrating oVirt with Enterprise Storage

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Key Points

• NetApp view on virtualization

• VSC 1.0 capabilities

• UI plugin integration

• Future direction
NetApp View on Virtualization

From Silos... …to Flexible IT

- Centralize
- Standardize
- Consolidate
- Virtualize
- Automate
- Self-Service
NetApp’s interest in oVirt

- Customer Choice
- Open Source Commitment
- oVirt Board Representation
Commodity Disk Shelf

I need a new VM...

I’m too busy, you do this...

Offload request....

Yeah, whatever...
Enterprise Array

I’m too busy, you do this...

Offload request...

clone01, clone02, clone03

OK..
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

Tabs
Actions
Dialogs

UI Plugin Framework

Add Tab
Add Action
Show Dialog

VSC UI Plugin

NetApp Tab
New NetApp Domain
NetApp Domain Wizard
VSC and oVirt Interactions

WebAdmin UI

VSC UI

GWT RPC

VSC Server

ZAPI

REST

ovirt engine

ovirt node

NetApp Controller

NFS
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

- vdsmd-devel@lists.fedorahosted.org
- engine-devel@ovirt.org
- http://communities.netapp.com
Wrap-up

Offload!

Integration  Automation  Efficiency  Wider Acceptance of KVM
Thanks!

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Backup Slides
VSC
Backup & Restore

- Co ordinate apps & VMs
- DR Site
- Manage ment
- Backup Schedule
- Restore VMs & Data Stores

SnapShot
Snap Creator
Snap Creator Demo
KVM Plugin for Snap Creator

MySQL

DB2

Oracle

Zimbra

Sybase

Domin o

MaxDB

Snap Creator
Stacked & Nested Configurations