oVirt Updates

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Itamar Heim
iheim@redhat.com
Agenda

- Community
- Events
- Updates
- Feature Highlights
- Roadmap
Users Mailing List

- ~650 subscribers to users
- ~150 non subscribers send emails to it
- ~200 (20%) from redhat, ~180 from gmail, most other come from unique domains
oVirt Commits per Month

https://www.ohloh.net/p/oVirt/commits/summary
2013 Releases

- 02/2013 - oVirt 3.2 GA
- 04/2013 - oVirt 3.2.1 - .el6 (CentOS/RHEL) support
- 09/2013 - oVirt 3.3
- 10/2013 - oVirt 3.3.1 (in beta)
- 02/2014 – oVirt 3.4 (planned)
Events – Busy Year for oVirt!

- 01/2013 – oVirt workshop, NetApp, CA, USA
- 01/2013 – linux.conf.au, Australia (oVirt Intro)
- 02/2013 – Fosdem, Belgium (6 sessions, booth)
- 03/2013 – oVirt workshop, Intel, Shanghai, China
- 03/2013 - FOSS Stockholm (oVirt Intro)
- 04/2013 – OpenStack Summit, CA, USA (oVirt as Compute Resources)
- 05/2013 – CloudOpen Japan (oVirt Intro, SLA)
- 05/2013 - Linuxwochen Vienna, Austria (oVirt Intro)
Events – Busy Year for oVirt!

- 06/2013 – Red Hat Summit (oVirt booth)
- 07/2013 – FISL14, Brazil (4 sessions, booth)
- 07/2013 - Seemanta Engineering College, Odisha, India (oVirt hands on lab)
- 08/2013 – August Pinguin, Israel (oVirt Intro)
- 09/2013 – CloudOpen NA (oVirt Intro, SLA)
- 09/2013 – k-lug, MN, USA (oVirt Intro)
- 10/2013 – CloudOpen, KVM/oVirt, UK (lots...)
- 10/2013 – OSDC, Germany (oVirt Intro)
oVirt Monthly Updates (highlights)

- **Vagrant** support for oVirt/RHEV added
- `ovirt_metrics` - ActiveRecord-based gem for reading the oVirt History database
- `libgovirt` - G Object C library for oVirt REST API
- DEMO: oVirt - GlusterFS Native Integration for KVM Virtualization
- **Ubuntu and SUSE guest OSs** added to oVirt
- using oVirt to build a virtualization platform on an IBM BladeCenter
- How to create and provision an oVirt VM with **Ansible**
- oVirt works with samba
UI Plugins Crash Course: oVirt Space Shooter

<table>
<thead>
<tr>
<th>Name</th>
<th>Storage Type</th>
<th>Status</th>
<th>Compatibility Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default</td>
<td>NFS</td>
<td>Uninitialized</td>
<td>3.1</td>
</tr>
<tr>
<td>MyDC</td>
<td>NFS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- New
- Edit
- Remove
- Force Remove
- Guide Me
- Re-Initialize Data Center
- Protect DataCenter from Alien Invasion
UI Plugins Crash Course: oVirt Space Shooter
oVirt Monitoring UI Plugin
oVirt Monthly Updates (highlights)

- Alien Invasion crash course UI Plugin
- new Português users mailing list
- build your home 10GE gluster/virt lab at bargain prices
- Mac SPICE mime launcher
- Nagios monitoring plugin released
- Monitoring UI Plugin published
- Android x86 running on oVirt
- ZENOSS monitoring webinar on oVirt (rhev)
Deep dives

In anticipation of the 3.3 release, a number of deep dive presentations into 3.3 features are being prepared.

- Deep Dive Into Host Power Management [File:PM-deep-dive.odp](#) recording
- Async Task Manager changes for oVirt 3.3 Deep Dive [File:Async task mgr 23 july 2013 ovirt final.odp](#)
- Network QoS / vNIC Profiles presentation [File:VNIC Profiles.odp](#)
- Scheduling in oVirt 3.3 deep dive [File:Scheduler-Deep-Dive-oVirt.pdf](#)
- Hosted engine deep dive [File:Hosted Engine Deep Dive.pdf](#)
- Packaging [File:Ovirt 3.3 - packaging.pdf](#)
### NetApp UI Plugin

The image shows the NetApp UI Plugin for oVirt. The plugin allows users to manage NetApp storage controllers within the oVirt environment. The screen captures a form for adding a new storage controller, with fields for the target hostname, port, user name, password, and SSL configuration.

<table>
<thead>
<tr>
<th>Controller</th>
<th>IP Address</th>
<th>Version</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFIT</td>
<td>10.61.167.254</td>
<td>8.1.2</td>
<td>SSL_NOT_CONFIGURED</td>
</tr>
<tr>
<td>Ice3170-1b.rtp.netapp.com</td>
<td>10.61.185.155</td>
<td>-</td>
<td>SSL_NOT_CONFIGURED</td>
</tr>
</tbody>
</table>

[Add Storage Controller form]

- **Target Hostname**: 10.61.167.50
- **Target Port**: 80
- **User Name**: root
- **Password**: [password field]
- **Use SSL**: [checkbox]

The plugin integrates seamlessly with the oVirt environment, providing a unified management experience for virtualization and storage.
NetApp UI Plugin
<table>
<thead>
<tr>
<th>Name</th>
<th>CPU</th>
<th>Network I/O</th>
<th>Disk I/O</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fedora-19</td>
<td>0%</td>
<td>0</td>
<td>0</td>
<td>VM</td>
</tr>
<tr>
<td>kimchi-test-fedora-19</td>
<td>1%</td>
<td>0</td>
<td>23</td>
<td>Actions</td>
</tr>
<tr>
<td>kimchi-test-openuse-12.3</td>
<td>0%</td>
<td>0</td>
<td>0</td>
<td>VM</td>
</tr>
<tr>
<td>kimchi-test-rhel-6.4</td>
<td>0%</td>
<td>0</td>
<td>0</td>
<td>VM</td>
</tr>
<tr>
<td>kimchi-test-ubuntu-13.04</td>
<td>0%</td>
<td>0</td>
<td>0</td>
<td>VM</td>
</tr>
</tbody>
</table>
oVirt Monthly Updates (highlights)

- **oVirt 3.3 deep dive** sessions
- An **oVirt Clojure SDK library for vm life cycle**
- **Ubuntu and Debian guest agent packages**
- Testing **oVirt 3.3 with Nested KVM**
- **NetApp UI plugin**
- **Alter Way Case Study**
- **Kimchi** incubated
- **oVirt Python SDK review** (Português)
- **new spice-xpi windows** support (2.8.90)
VPS Order Portal

Server Catalog

Specifications
- CPU: 1
- RAM: 512MB
- HDD: 80GB

Customer Input
- Fedora
- Ubuntu
- FreeBSD
- Win2008R2

User ID (e.g. abc0001): karti
Desired Hostname (e.g. testsystem)
Submit

Stands for Virtual Private Server

What if you could have a computer that ran on it’s own and was always available. That happily gathered important research data and presented that for you on a web page that all of your colleagues could go in and view. Or to test how a particular system update is going to play russian roulette with your application. Would it be nice to have a different platform to test how your projects reacts against? Or to just let it play Pong against itself for all eternity.

Why?
You’re tired of that big noisy thing crammed under desk, your closet might be otherwise occupied, or you want a more flexible solution than hiring rack space in someone else’s server room. You get access to a customer portal where you can start and stop the machine, plus the ability to take snapshots/restore points, so that when/not if something goes wrong, you atomically roll back in time to a happier place. You know, just to take a snapshot before that huge upgrade that never goes by unnoticed.

Built on Open Source
The Virtualization engine that drives this system is called oVirt (www.ovirt.org), originally developed by RedHat, that uses Linux’s KVM virtualization. The storage behind it is supplied by a FreeNAS server (www.freenas.org) equipped with the ZFS filesystem, originally developed by SUN.

Start small, scale big
What’s cool about virtual machines is that, if you need to, are able to shut the machine down, crank up its resources with more CPU’s, RAM and HDD’s, and when you don’t need anymore, you can turn it back down again; Resources On-Demand.

Safety comes first
We know from ourselves the thrill and joy of keeping hundreds of servers patched and secure. Say with me, “Patching is fun” (right?). So in this system, the servers patch themselves automatically once a month at night, between 01:30 and 04:30, and a reboot takes less than five minutes.

Support
The “RKH systems have three basic dependencies, Puppet—that is in charge of keeping the machines updated, Winbind—that handles how you log in with your SLU domain account, and SSH—so you(and we) can administer the machine without having direct access to it’s console/monitor. Since it is your server you are free to do with it what you want, but if any of these dependencies are broken, you are going to be referred to the respective distribution’s support forum instead, case closed. The same principle applies to Windows machines as well, except with it’s Active Directory join as the dependency that provides for the rest.
oVirt Monthly Updates (highlights)

- **Power PC** engine patches
- How to use a Glance image with oVirt
- oVirt order portal
- VM life cycle Ansible oVirt module
- Pluggable scheduler samples are available
- **puppet and chef** modules to deploy oVirt engine and oVirt node
- High-Availability oVirt-Cluster with iSCSI-Storage
- 3 part series on using the python sdk
3.2 - Feature Highlights

- Ease of install / stability
- .el6 support
- Live storage migration
- Live snapshot
- Hotplug disk/nic
- UI plugins
- Multiple fencing devices
- Fencing proxy
- Gluster management improvements
3.3 - Feature Highlights

- Neutron network provider support
- Glance image provider support
- Foreman as a host provider
- Pluggable scheduler (3.3.1)
- Watchdog support
- Network profiles (3.3.1)
- Cloud-init
- OpenLDAP authentication
- MoM/Cpu shares/Ballooning
- Virtual disk resize
- Live snapshot with RAM
OpenStack Network Neutron Provider

![Add Provider Interface Mappings](image)

**Interface Mappings**
- red:eth1

**QPID**
- Host: my.host.fqdn
- Port: 5672
- Username: quantum
- Password: ••••••
OpenStack Network Neutron Provider

![Image of OpenStack Network Neutron Provider interface]

The diagram shows the Import Networks section of the OpenStack interface. It lists various networks with their corresponding Provider Network IDs (PNIDs) and provides options to select or import them. The Provider Networks section includes names like external_red, nicless, test, test2, and test3, along with their PNIDs. The Networks to Import section lists newnet and foo with their respective PNIDs and data centers.
OpenStack Glance Image Provider

Add Provider

General

Name: GlanceDomain1
Description: My Glance Domain 1
Type: OpenStack Image
Provider URL: http://fsimonce-rhos.usersys.redhat.com

Requires Authentication

Username: ovirt
Password: ******
Tenant Name: ovirt-storage1

Test succeeded, managed to access provider.

OK  Cancel
### OpenStack Glance Image Provider

<table>
<thead>
<tr>
<th>Domain Name</th>
<th>Domain Type</th>
<th>Storage Type</th>
<th>Format</th>
<th>Cross Data-Center Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>BlockDomain1</td>
<td>Data</td>
<td>iSCSI</td>
<td>V3</td>
<td>Active</td>
</tr>
<tr>
<td>BlockDomain2</td>
<td>Data (Master)</td>
<td>iSCSI</td>
<td>V3</td>
<td>Active</td>
</tr>
<tr>
<td>ExportDomain1</td>
<td>Export</td>
<td>NFS</td>
<td>V1</td>
<td>Active</td>
</tr>
<tr>
<td>FileDomain1</td>
<td>Data (Master)</td>
<td>NFS</td>
<td>V3</td>
<td>Unknown</td>
</tr>
<tr>
<td>GlanceDomain1</td>
<td>Image</td>
<td>OpenStack Glance</td>
<td>V1</td>
<td>Unattached</td>
</tr>
<tr>
<td>GlanceDomain2</td>
<td>Image</td>
<td>OpenStack Glance</td>
<td>V1</td>
<td>Unattached</td>
</tr>
<tr>
<td>IsoDomain1</td>
<td>ISO</td>
<td>NFS</td>
<td>V1</td>
<td>Active</td>
</tr>
</tbody>
</table>

#### Images

<table>
<thead>
<tr>
<th>File Name</th>
<th>Type</th>
<th>Actual Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank QCOW2 Image 20Gb (1477cd5)</td>
<td>Disk</td>
<td>&lt; 1 GB</td>
</tr>
<tr>
<td>BlockDiskThin1 (7fdbc25)</td>
<td>Disk</td>
<td>&lt; 1 GB</td>
</tr>
</tbody>
</table>
The Foreman Provider

![Add Provider dialog box with the following details:
- Name: new foreman provider
- Type: Foreman
- Provider URL: http://localhost
- Requires Authentication: checked
- Username: username
- Password: **********

Test button available for authentication test.]
The Foreman Provider

![New Host window with Foreman Provider configuration]

- Data Center: DC2
- Host Cluster: CL2
- Provider search filter: `hostgroup=hg`
- External Hosts: test1.example.com, test2.example.com, ..., test15.example.com

- Show External Providers: checked
- Automatically configure host firewall: checked
Pluggable Scheduler

Edit Cluster Policy

Filter Modules

<table>
<thead>
<tr>
<th>Enabled Filters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migration</td>
</tr>
<tr>
<td>Memory</td>
</tr>
<tr>
<td>CPU</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disabled Filters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

Weights Modules

<table>
<thead>
<tr>
<th>Enabled Weights &amp; Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>PowerSaving</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disabled Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
<tr>
<td>EvenDistribution</td>
</tr>
</tbody>
</table>

Load Balancer

<table>
<thead>
<tr>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>CpuOverCommitDurationMins</td>
</tr>
<tr>
<td>HighUtilization</td>
</tr>
<tr>
<td>LowUtilization</td>
</tr>
</tbody>
</table>
Watchdog
vNic Profiles & QoS

VM Interface Profile

Network
ovirtmgmt

Name
ovirtmgmt

Description

QoS

Port Mirroring

No available keys

Edit Network QoS

Data Center
sla-gold-tlv-redhat-com-Local

Name
test-qos

Inbound
Average 1 Mbps
Peak 2 Mbps
Burst 0 Mb

Outbound
Average 2 Mbps
Peak 4 Mbps
Burst 0 Mb
cloud-init

- Cloud-Init
- Hostname: cloud-init-test
- Network: eth0
- IP Address: 192.168.2.15
- Netmask: 255.255.255.0
- Gateway: 192.168.2.1
- Start on Boot: checked
- DNS Servers: 8.8.8.8
- DNS Search Domains: 
- SSH Authorized Keys: 
- Time Zone: (GMT+02:00) Israel Standard Time
- Root Password: ********
3.3 – Feature Highlights (cont)

- Intel's attestation service support
- Native gluster domain
- NoVNC/spice.html5
- Java SDK
- Hosted Engine (coming)
- virtio-scsi support
- Edit storage connections (3.3.1)
- Apache frontend
- ssh soft fencing
- Create multiple VMs from template
- OsInfo
Short Term Roadmap

- Authentication refactoring (in the works)
- PPC support (in the works)
- JSON Rest API (in the works)
- Logical Network QoS (in the works)
- Feature level negotiation (engine-vdsm)
- Fedora 20 support
- Ubuntu support
- Host profiles
- VM affinity scheduling
- Hot plug cpu
High on the Radar

- UI over REST API
- Host update manager
- Template versions
- Private networks
- Resize LUN
- Import data domain
- Multiple storage types in DC
- Live merge snapshot
- Keystone authentication support
- Cinder storage domain
THANK YOU!

http://ovirt.org
users@ovirt.org

#ovirt irc.oftc.net