

Foreman - Feature #2438

Ability to deploy hosts from vmware templates

04/29/2013 05:04 AM - Oliver Weinmann

Status: Closed	
Priority: Normal	
Assignee:	
Category: Compute resources	
Target version: 1.5.0	
Difficulty:	Fixed in Releases:
Triaged:	Found in Releases:
Bugzilla link:	Red Hat JIRA:
Pull request:	
Description Hi, it would be nice to deploy hosts from VMware templates to speedup the deployment process. Regards, Oliver	
Related issues:	
Related to Foreman - Feature #5125: List available VMware images	Closed 04/09/2014
Has duplicate Foreman - Feature #2703: Create vmware virtual machines by clon...	Duplicate 06/24/2013

Associated revisions

Revision 33040495 - 04/09/2014 12:19 PM - Rufus Post

fixes #2438 - Add image build capability to vsphere using templates

History

#1 - 07/08/2013 05:45 PM - Jon McKenzie

+1 to this. I work in an environment with multiple, disconnected LANs, so in many instances, I need to be able to provision from templates to reduce provisioning errors, reduce the chance that someone has changed something, not have to rely on network resources (that may be down), etc.

#2 - 09/14/2013 11:40 PM - Jason Ashby

I would love this functionality. Looks like rbvmomi, the gem used by Foreman to talk to VMware, has the ability to deploy from an OVF.

<http://rdoc.info/github/rlane/rbvmomi/master/RbVmomi/VIM/OvfManager>

So I think you could convert the VMware template to OVF format and make it accessible via http. I'm thinking:

- add new medium in Foreman pointing to my "golden" OVF.
- then I can create a new host in Foreman using the OVF as the source + any applicable fields.

I'm not sure how the kickstart portion would work in regards to setting up networking, etc... to get the new host handed off to puppet. Not sure you can configure the guest OS' network when deploying from OVF.

Anyone have any ideas, concerns? I'd be happy to work on this.

#3 - 09/27/2013 06:48 PM - Jason Ashby

You can mark this as a duplicate of <http://projects.theforeman.org/issues/2703>. I know 2703 is newer, but it has some better info and code to start with.

#4 - 09/27/2013 06:55 PM - Dominic Cleal

- Has duplicate Feature #2703: Create vmware virtual machines by cloning a template added

#5 - 09/27/2013 06:56 PM - Dominic Cleal

- Description updated

- Category set to Compute resources

I kept this one as it's got more votes, thanks for pointing it out Jason. (But yes, do check the other issue for a script snippet.)

#6 - 10/01/2013 02:58 PM - Jason Ashby

Here is a script to launch a VM from a VMware template, allowing a static IP and networking to be set on the guest OS. This expands on Ronny's script in issue 2703.

```
#!/usr/bin/ruby
require 'rubygems'
require 'fog'
require 'pp'

credentials = {
  :provider      => "vsphere",
  :vsphere_username => "myadminuser",
  :vsphere_password => "*****",
  :vsphere_server  => "vcenter.example.com",
  :vsphere_ssl     => true,
  :vsphere_expected_pubkey_hash => "89d0foof6e6aef34e1ed20ae04dfad48085355e6bfoo792e9435b5a4f1b3e9"
}

connection = Fog::Compute.new(credentials)
puts "Connected to #{connection.vsphere_server} as #{connection.vsphere_username} (API version #{connection.vsphere_rev})"

options = {
  'datacenter'    => 'Baltimore',
  'template_path' => '/centos_6_4',
  'power_on'      => true,
  'memoryMB'     => '1024',
  'network_label' => '172.18.2.x',
  'numCPUs'      => 2,
  'datastore'    => 'VM NFS Mount',
  'wait'         => true,
  'hostname'     => 'tester',
  'name'         => 'Tester',
  'customization_spec' => {
    'domain'      => 'example.com',
    'ipsettings' => {
      'ip'        => '172.18.2.10',
      'gateway'   => ['172.18.2.1'],
      'subnetMask' => '255.255.255.0',
    },
  },
},

puts "Deploying new VM from template. This may take a few minutes..."
new_vm=connection.vm_clone(options)
pp new_vm
```

Side note: I had to change the guest OS setting on my CentOS 6 template to RHEL 6 due to CentOS guest customization not being supported in vSphere per the error below. You need to convert the template to a VM, change the guest OS to Red Hat, and convert back to a template and you're golden.

```
/usr/lib/ruby/gems/1.8/gems/rbvmomi-1.6.0/lib/rbvmomi/vim/Task.rb:11:in `wait_for_completion': UncustomizableGuest: Customization of the guest operating system 'centos64Guest' is not supported in this configuration. Microsoft Vista (TM) and Linux guests with Logical Volume Manager are supported only for recent ESX host and VMware Tools versions. Refer to vCenter documentation for supported configurations. (RbVmomi::Fault)
    from /usr/lib/ruby/gems/1.8/gems/fog-1.15.0/lib/fog/vsphere/requests/compute/vm_clone.rb:259:in `vm_clone'
    from ./fogtest.rb:46
```

#7 - 10/01/2013 03:32 PM - Jason Ashby

I'll see about incorporating this in Foreman. First, one should be able to retrieve a list of available templates from a compute resource and have that populate a drop-down in the deploy New Host view. I'm not sure if all the fields when deploying a new host in Foreman are applicable/supported by fog's vm_clone or even vSphere, so the functionality may be limited. Still, having this ability through Foreman to deploy a new host via template would be huge in my environment.

#8 - 10/01/2013 04:57 PM - Dominic Cleal

Thanks for looking into this Jason. You might want to investigate Foreman's image support, which allows you to associate a compute resource image

with an operating system, so it's available to select on the new host form. CRs such as EC2 and OpenStack use this method, but we'll need to support both methods for VMware.

#9 - 10/10/2013 02:34 PM - Jason Ashby

Will do Dominic, thanks.

I'm running into an issue with fog where I can't deploy a VM to a different datacenter/resource pool other than where the template resides. Hopefully I'll get some info while I dig into this issue myself. Details on github:

<https://github.com/fog/fog/issues/2233>

#10 - 10/10/2013 05:18 PM - Ronny M

Beside (or instead of) a template selection drop-down menu I was thinking that it would be nice if vmware templates could be linked to an hosts selected OS version.

This way selecting, for example Redhat/CentOS 6.4 64bit OS for a host would default to a vmware template (rhel6_64bit) that is optimized for this OS version without the need of having to select a template from a drop-down menu. The drop-down menu could then be used to override a default or if no default template would exist for an OS version.

This minimizes the amount of configuration changes a user has to do for creating a host and could also prevent a maybe unnecessary selection of a wrong template for a configured/chosen OS version.

#11 - 01/21/2014 11:47 PM - Rufus Post

I have a PR open for a basic implementation, looking for feedback and have more time to invest in this

<https://github.com/foreman/foreman/pull/1183>

#12 - 01/22/2014 10:08 AM - Dominic Cleal

- Status changed from New to Ready For Testing

- Target version set to 1.9.2

#13 - 02/06/2014 12:05 PM - Anonymous

- Target version changed from 1.9.2 to 1.9.1

#14 - 03/03/2014 12:49 PM - Anonymous

- Target version changed from 1.9.1 to 1.9.0

#15 - 03/26/2014 12:58 PM - Anonymous

- Target version changed from 1.9.0 to 1.8.4

#16 - 04/07/2014 10:08 AM - Jean-Christophe Counio

Hi,

This a a very good and needed feature, and I'd love to see that in 1.5.0.

Just a few comments :

- The PR actually doesn't use VmWare templates from what I tested. It requires one of the VMs in the list of 'Virtual Machines', which are actual VMs (that can be off) but not VmWare templates
- If the image VM is located in a folder, it fails since it try to take it from the root. Moving the image VM to the root of the DataCenter solved the issue
- The image id to enter when creating the image is indeed the UUID. It's ok when you know it, but since the field is common to many cloud servers, the UI isn't explicit on this

Thanks

JC

#17 - 04/07/2014 10:10 AM - Dominic Cleal

This is very unlikely to land in Foreman 1.5 now as we're approaching feature freeze this week, and the PR still has issues as you noted. If anybody has the time to resurrect it and address the noted issues, that'd be much appreciated. We'd be happy to give guidance on the PR, foreman-dev mailing list or IRC channel.

#18 - 04/08/2014 12:26 PM - Jean-Christophe Counio

I commented with a way to make the clone work when image isn't in the root in the PR.

Using Vms instead of templates isn't a blocker, what is important is to be able to clone, it saves a lot of time (eg for us, 3-7 mns to clone, 30-40mns to create new VMs with OS).

Maybe it's worth to merge it for 1.5.0 and go on with new issues/PR to improve it, since this one is opened for a while.

#19 - 04/09/2014 12:20 PM - Dominic Cleal

- *translation missing: en.field_release set to 4*

Thanks for your input Jean-Christophe, it's been very helpful.

#20 - 04/09/2014 12:48 PM - Dominic Cleal

- *Related to Feature #5125: List available VMware images added*

#21 - 04/09/2014 01:31 PM - Rufus Post

- *Status changed from Ready For Testing to Closed*

- *% Done changed from 0 to 100*

Applied in changeset [330404954cee82da47bc964df25a3902baa6dbf1](#).