



Integrating GNOME Boxes with oVirt

oVirt Workshop

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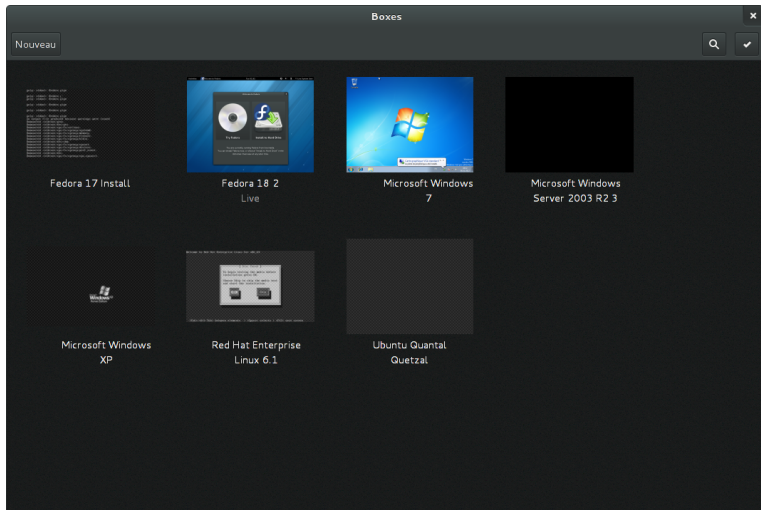
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What is GNOME Boxes?

- From <https://live.gnome.org/Boxes>:
A simple GNOME 3 application to access remote or virtual systems
- Creates and manages local KVM virtual machines using libvirt
- Automatic installation of Windows and Fedora systems
- Remote machine access through SPICE or VNC
- First release in GNOME 3.4 (March 2012)

GNOME Boxes



oVirt REST API

- API to access and control oVirt through HTTP
GET/POST/PUT requests
- list VMs managed by an ovirt instance: GET
`https://ovirt.example.com/api/vms`
- start a VM: POST `https://ovirt.example.com/api/vms/4e7da383-307f-4a65-9cca-e46fd475fb75/start`
- and much more...

Introducing govirt

- C library to access the oVirt REST API
- uses GObject and gobject-introspection
 - gobject-introspection gives us Javascript, Python, Vala, ... bindings
- synchronous and asynchronous API

govirt features

- get list of oVirt VMs
- start, stop oVirt VMs
- get connection information
 - connection type (SPICE, VNC)
 - display IP address, port
 - SPICE password (ticket)
 - CA certificate
- graphical display handled by spice-gtk/gtk-vnc

govirt example

```
proxy = ovirt_proxy_new (REST_URI);
ovirt_proxy_fetch_vms(proxy, &error);
vm = ovirt_proxy_lookup_vm(proxy, VM_NAME);
ovirt_vm_get_ticket(vm, proxy, &error);
ovirt_proxy_fetch_ca_certificate(proxy, &error);
g_object_get(G_OBJECT(proxy),
             "ca-cert", &ca_cert,
             NULL);
g_object_get(G_OBJECT(vm), "display", &display, NULL);
g_object_get(G_OBJECT(display),
             "type", &type,
             "address", &host,
             "port", &port,
             "secure-port", &secure_port,
             "ticket", &ticket,
             NULL);
```

Things to know

- authentication
- CA certificate
- password (ticket) needed for SPICE connections
- 2 different access modes: admin VS user

Current status

- govirt 0.0.2 to be released very soon
- oVirt virtual machines appear in GNOME Boxes main view
- can start oVirt VMs if needed and connect to them
- Boxes patches to be merged upstream after review (bgo #681747)
- virt-viewer patches in progress

Implementation issues

- missing SSL subject prefix in REST API (rhbz #867513)
- polling is needed for up to date state of the VMs
- very limited coverage of the REST API by govirt

Questions?

GNOME Boxes: <https://live.gnome.org/Boxes>

oVirt: <http://www.ovirt.org/>

govirt: <http://cgkit.freedesktop.org/~teuf/govirt/>

IRC channel: <irc://irc.gnome.org/#boxes>

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