



OPENSTACK DAYS
CHINA

Introduction to Compass

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Compass

Directing Software Defined Infrastructure



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OPNFV Wiki

Recent changes Mod

Trace: - start - compass4fv - compass4fv_deployment_guide - pipelines - infrastructure - pharos - huawei_sc_hosting

get_start

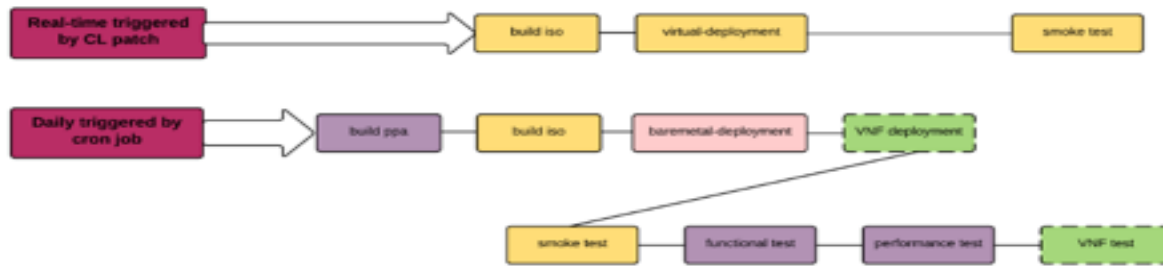
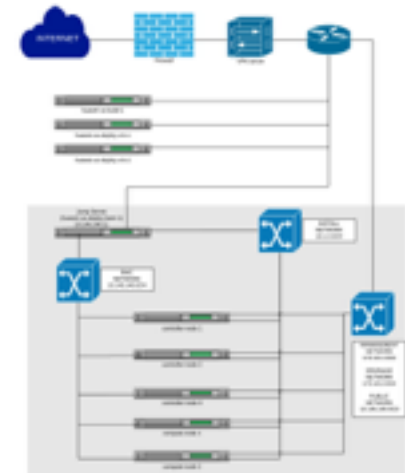
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- Introduction
- Overall Design
- How to use out
- Access

Introduction

Huawei's lab located in Santa Clara, CA will provide 1 full POD for baremetal deployment environment, 2 standalone server for virtual deployment, and 1 server with 6 executors for project's building and gate-testing. All the resources have been attached to jenkins master, you can view the slaves below in ["/jenkins master](#):

- huawei-us-build-1
- huawei-us-deploy-vm-1
- huawei-us-deploy-vm-2
- huawei-us-deploy-bare-1



What is Compass?

Deploy to BareMetal

- Auto-discovery of Hardware
- Support various servers, switches, storages

OS-Installer

- Cobbler(PXE)
- OpenStack Ironic

Package Installer

- Openstack deployment with various flavors
- NVF function(vIMS, epc, etc)
- Extensible - easy to add new applications

Application management

- Application monitor and logging

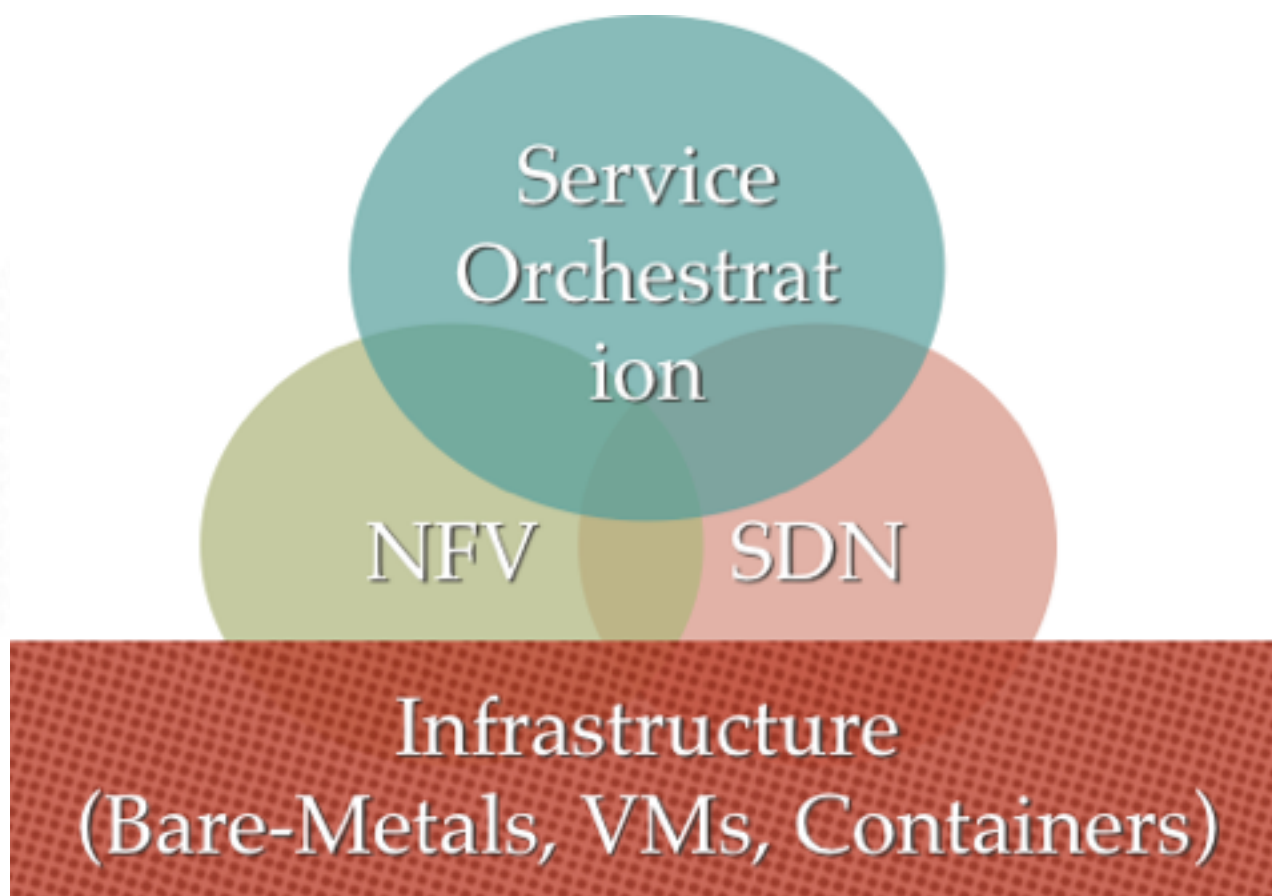


Why Compass?

- Simple: one person can manage a data center—remote deployment, data center config as configuration file
- Visual: Web UI
- Extensible: plugin mechanism
- Open: open source, actively on both OPNFV and OpenStack community



Orchestration and Automation



From Bare-metal to Application



ceph



SDN
+
NFV

Deploy any software onto any hardware with simple plug-in



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Inside Compass



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Web UI
AngularJS

CLI

3rd PARTY OSS



Compass

Directing Software Defined Infrastructure

COMPASS CORE

REST API

Meta Data

Message Queue

workers

DB

Resource Discovery

OS Provisioning

Package Deployment

IPMI

SNMP

INTEL
RSA

COBBLER

IRONIC

ANSIBLE

CHEF

PUPPET



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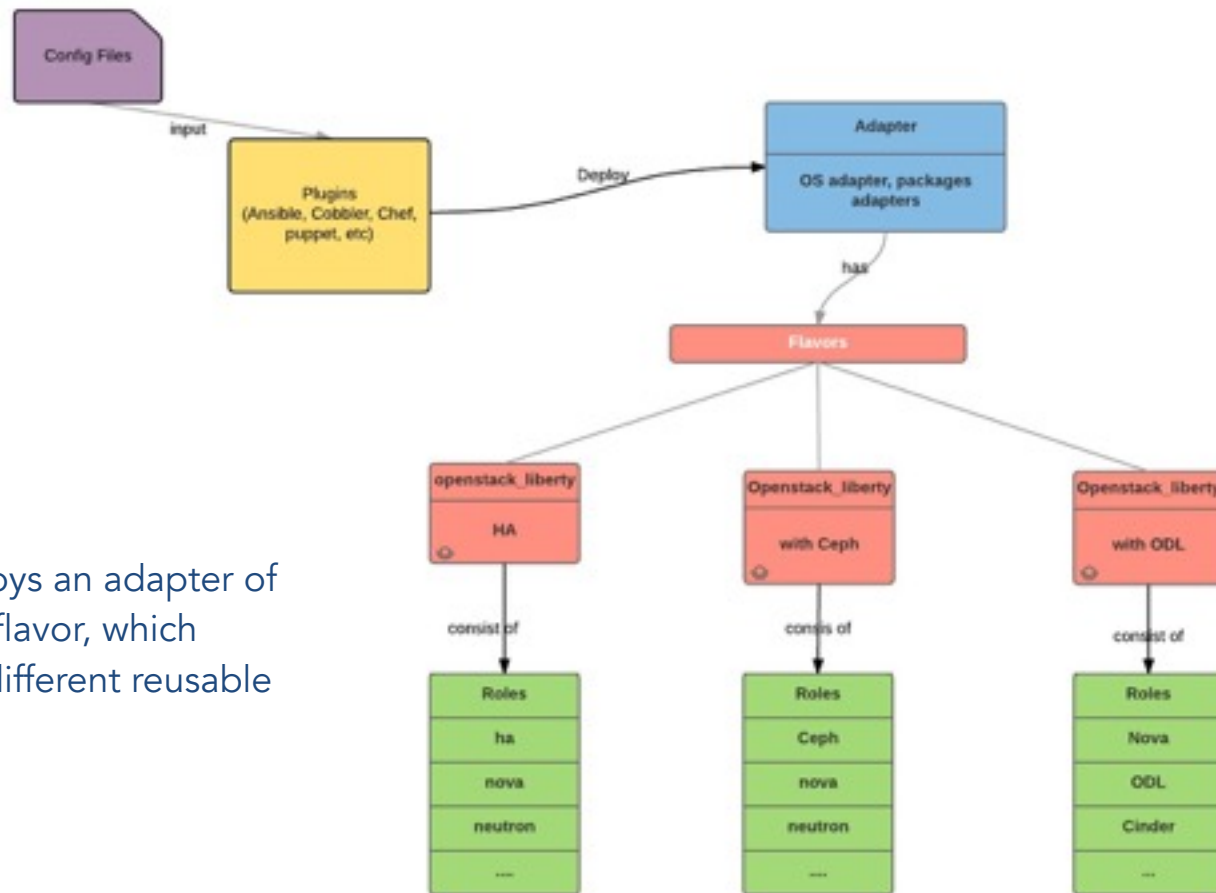
Plugin Mechanism

Important concepts:

- Plugin
- Adapter
- Flavor
- Role



Adapters - Target Systems



Plugin deploys an adapter of a particular flavor, which consists of different reusable roles



MetaData and Template Rendering

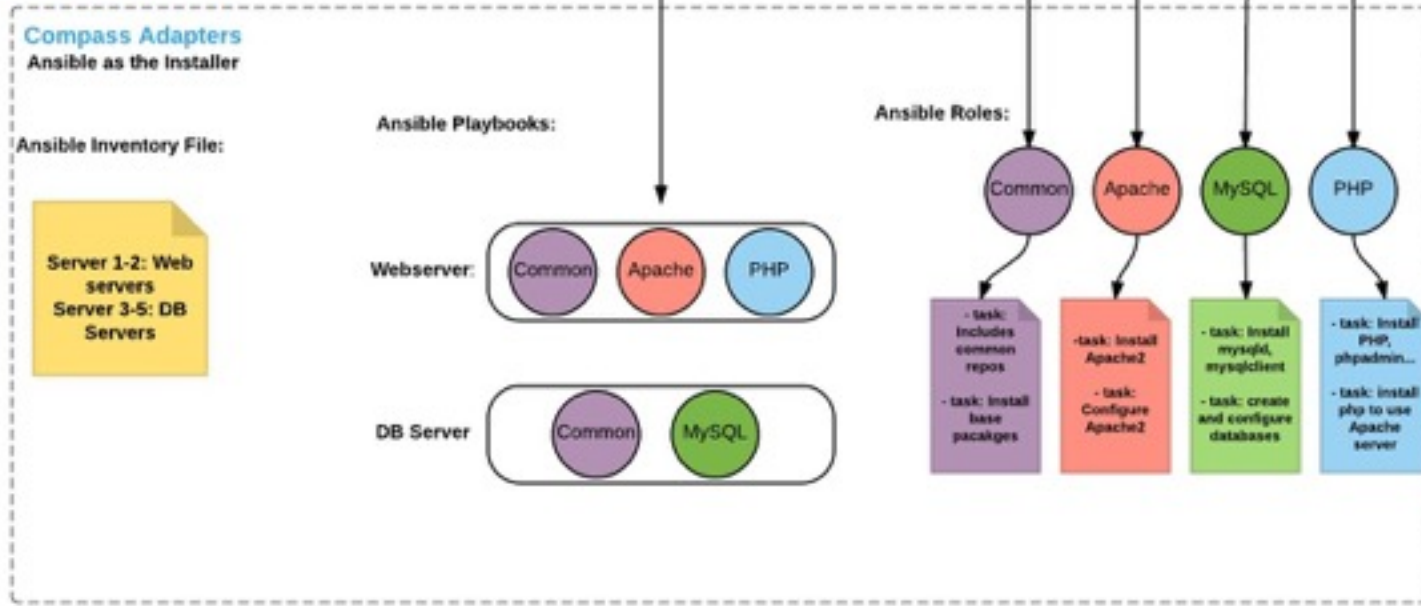
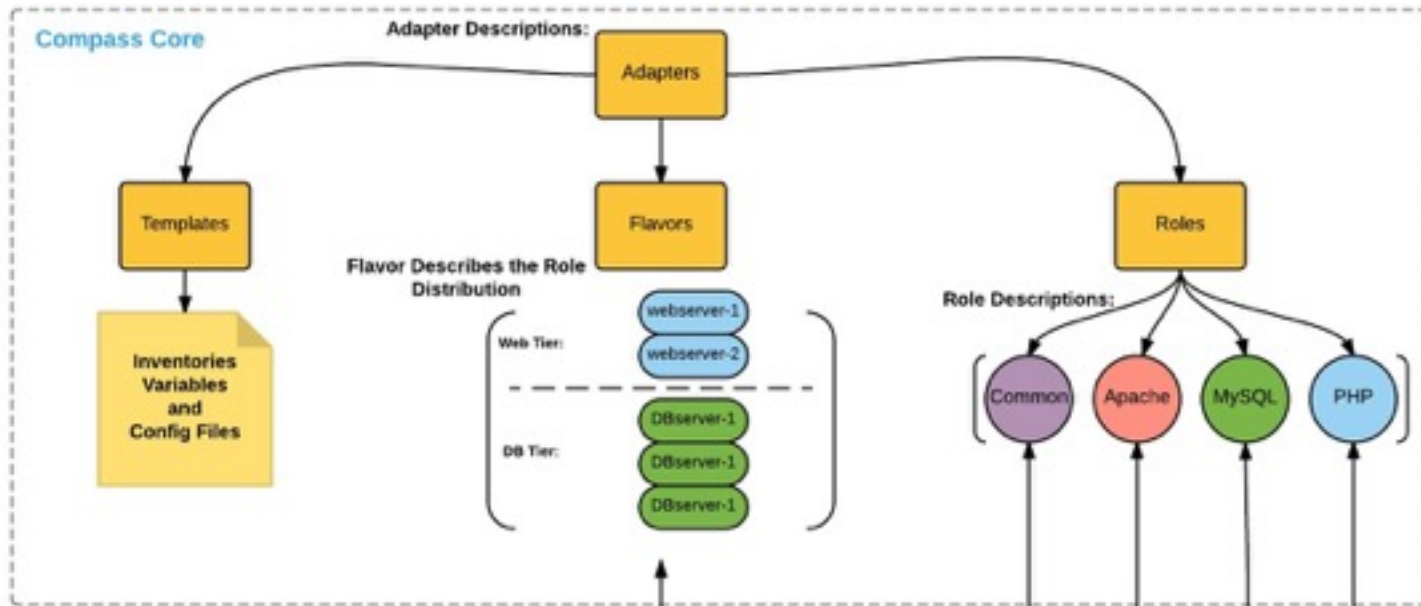
- Configurable data for each adapter
- Rendered by compass-core at run-time

➤ Extensible by design

```
{
  "os_config": {
    "general": {
      "timezone": {...}
      "language": {...}
    },
    "network": {
      "$interface": {
        "ip": {...},
        "netmask": {...}
        "gateway": {...}
      }
    },
    .....
  }
}
```

```
{
  "ftype": "str",
  "description": null,
  "is_required": true,
  "id": 3,
  "validator": "is_valid_ip"
}
```





Remote Deployment

- Deploy anything deployable from anywhere !
- Avoid the hassle of managing data center using traditional approach
 - data center infrastructure and applications as configuration file (blueprint)
 - hardware as reusable components
- Simply install compass agent in your data center, and you are good to go!



Remote Deployment

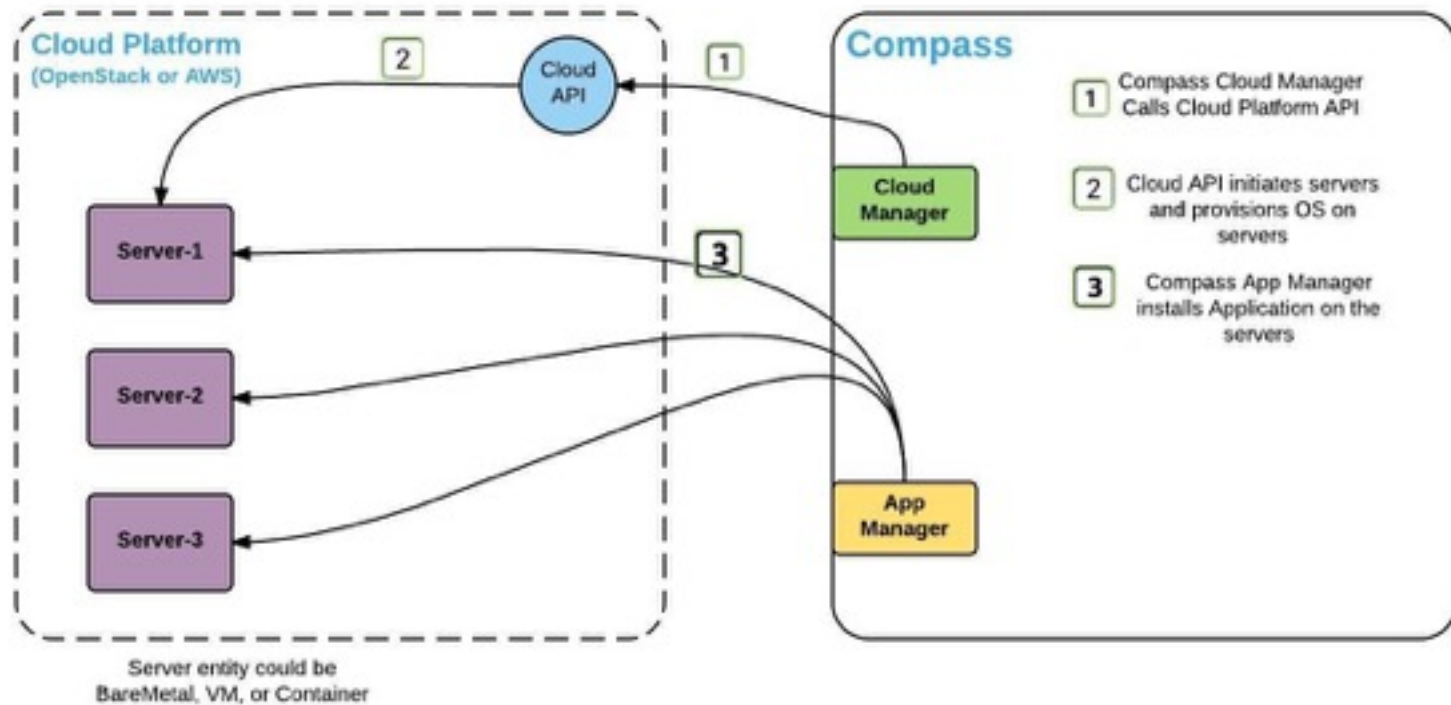
User enters configuration data on compass UI in the cloud

Compass server sends deployment configuration and instrument to compass agent in target environment

Local compass agent deploys/updates data center



Application Provisioning



See our demo!



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Find us on:

syscompass.org

<https://github.com/openstack/compass-core>

stack360.io

weidongshao@gmail.com



WeChat Group



Compass Discussion
Group



该二维码7天内(7月22日前)有效, 重新进入将更新



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We are hiring



WE WANT YOU!

Join our open source team
OpenStack
NFV
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Thank You!

