

Smart Inspector Doctor Project Implementation

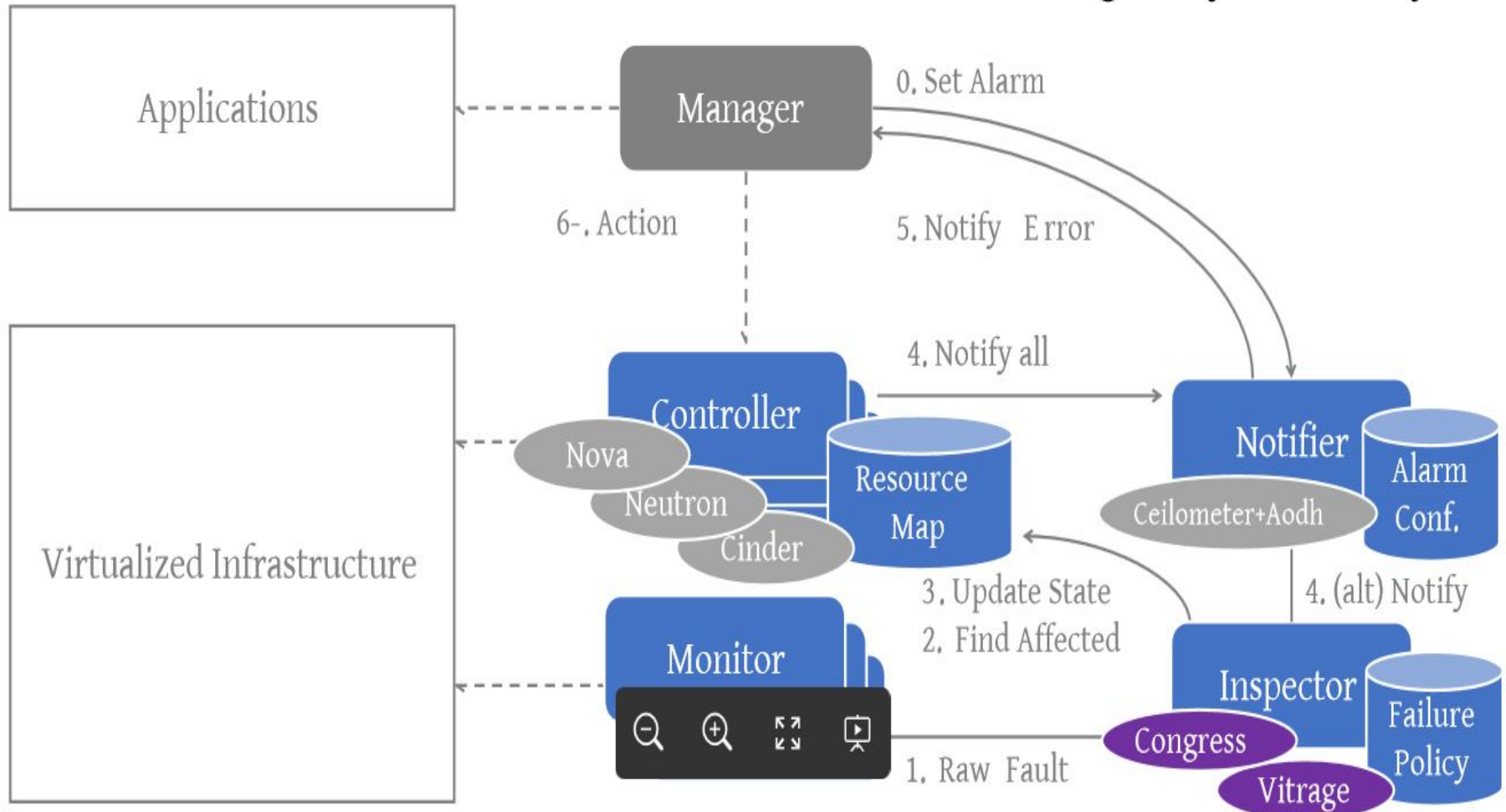
2017

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- Architecture
- OPNFV Apex Deployment Details
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- ClearWater Deployment Plans
- Instance Evacuation&Migration
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- Data Formats

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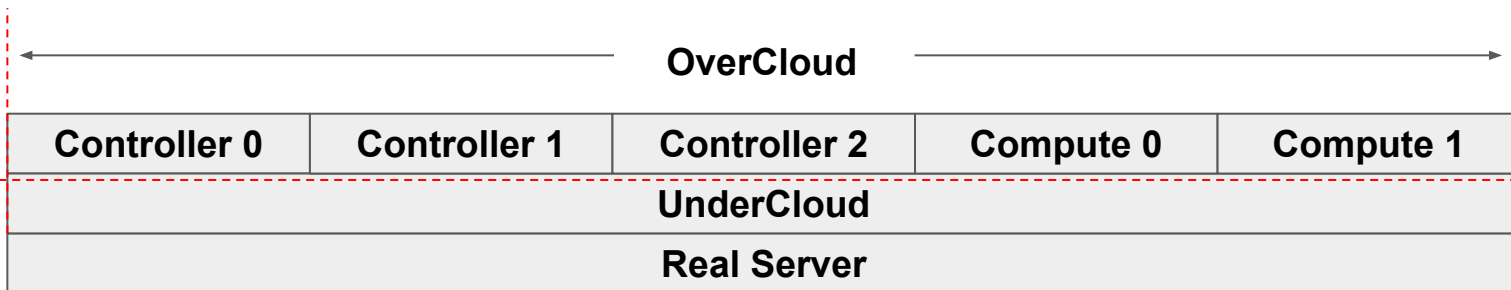


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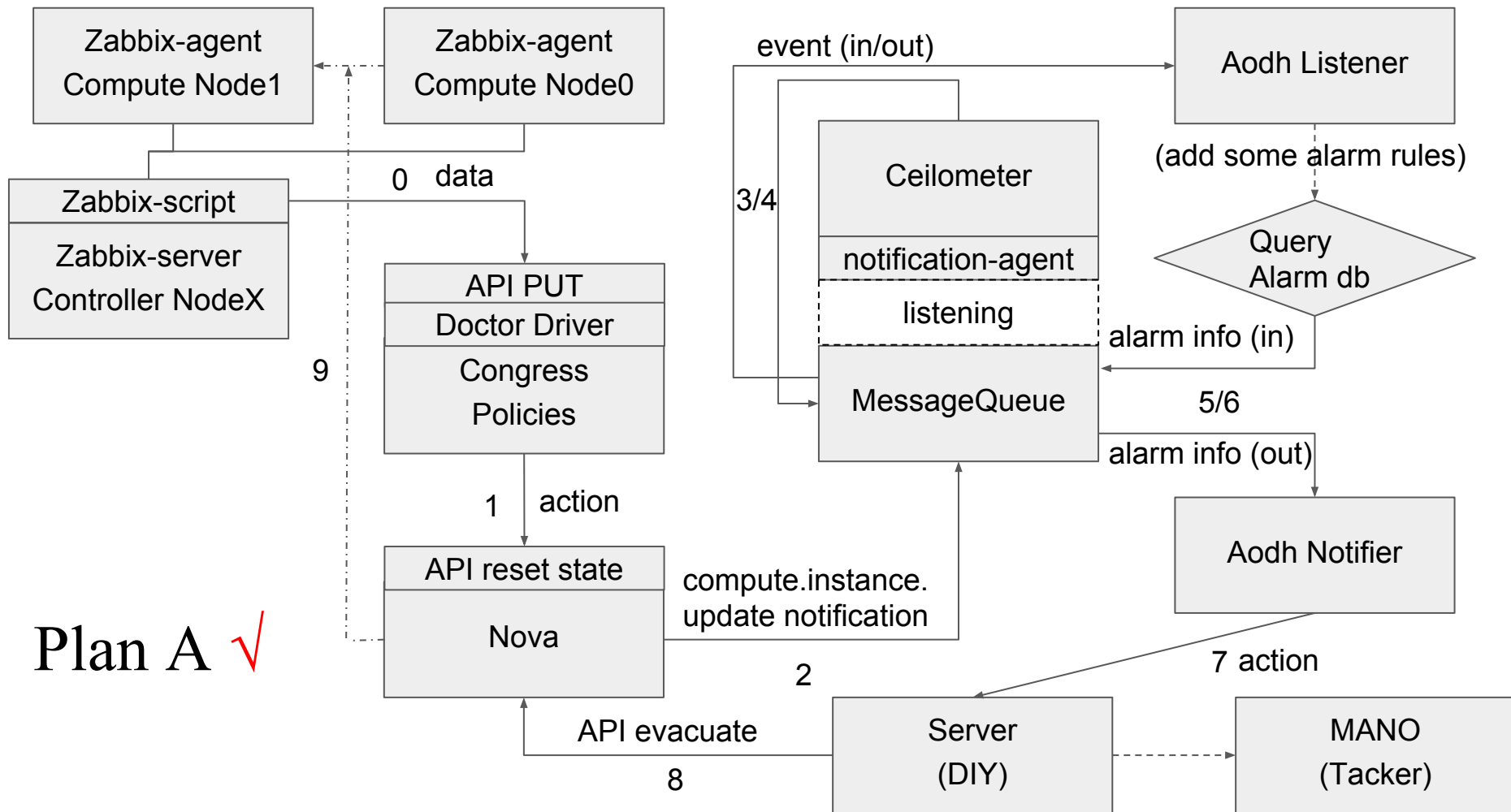
OPNFV Apex Deployment Details

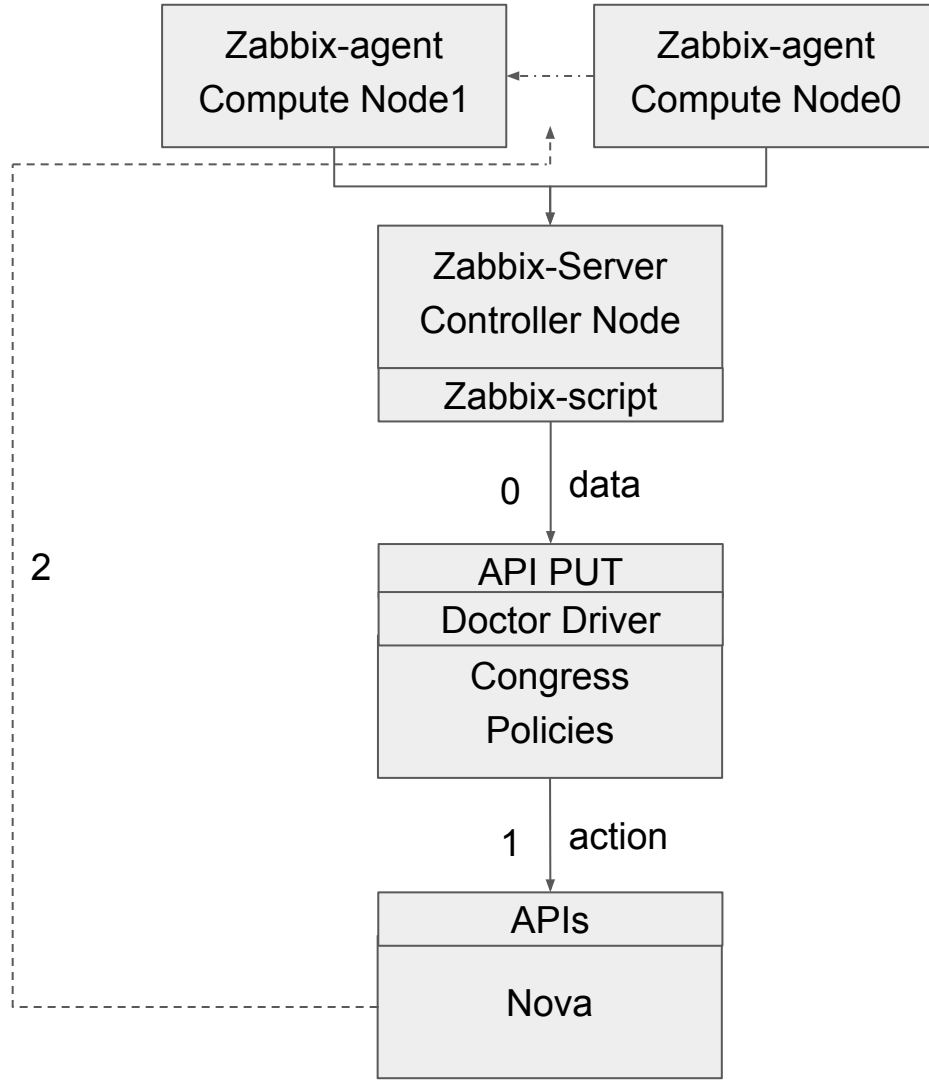
```
opnfv-deploy -v --virtual-cpus 8 \  
  --virtual-default-ram 64 \  
  --virtual-compute-ram 96 \  
  -n network_settings.yaml \  
  -d os-nosdn-nofeature-ha.yaml --debug
```



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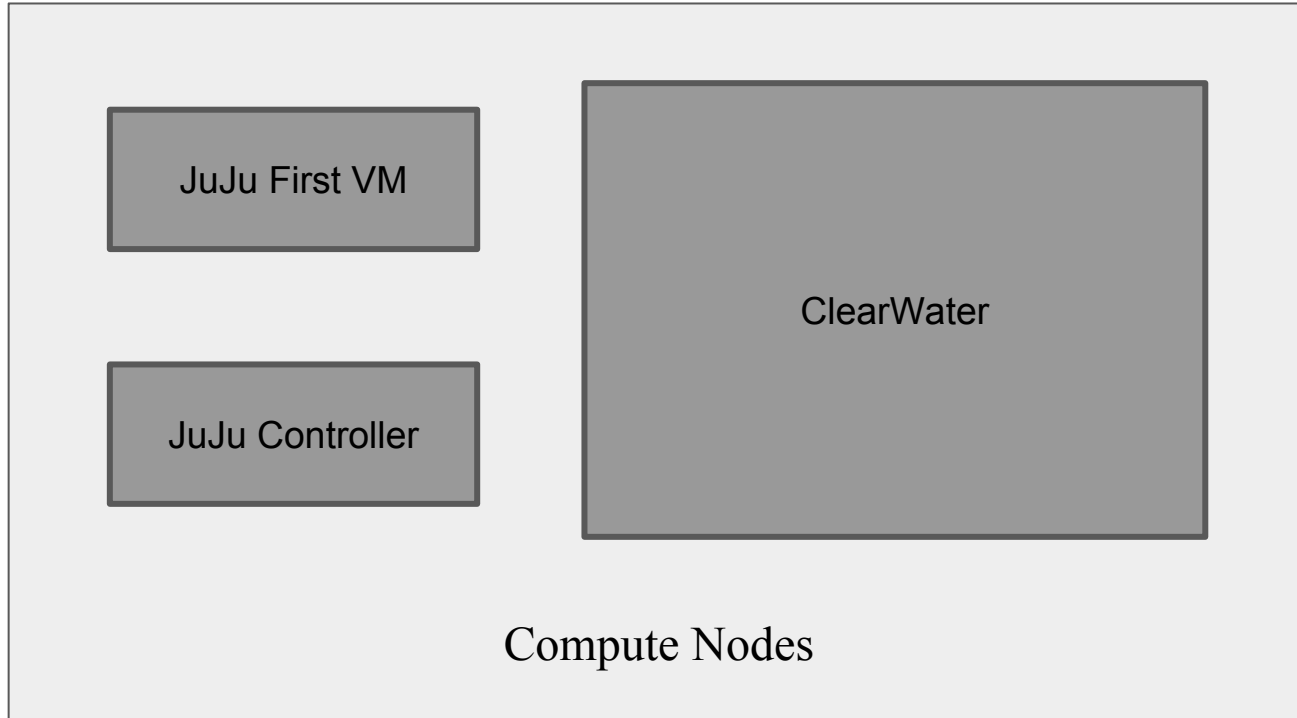


Plan B ✗

Navigation

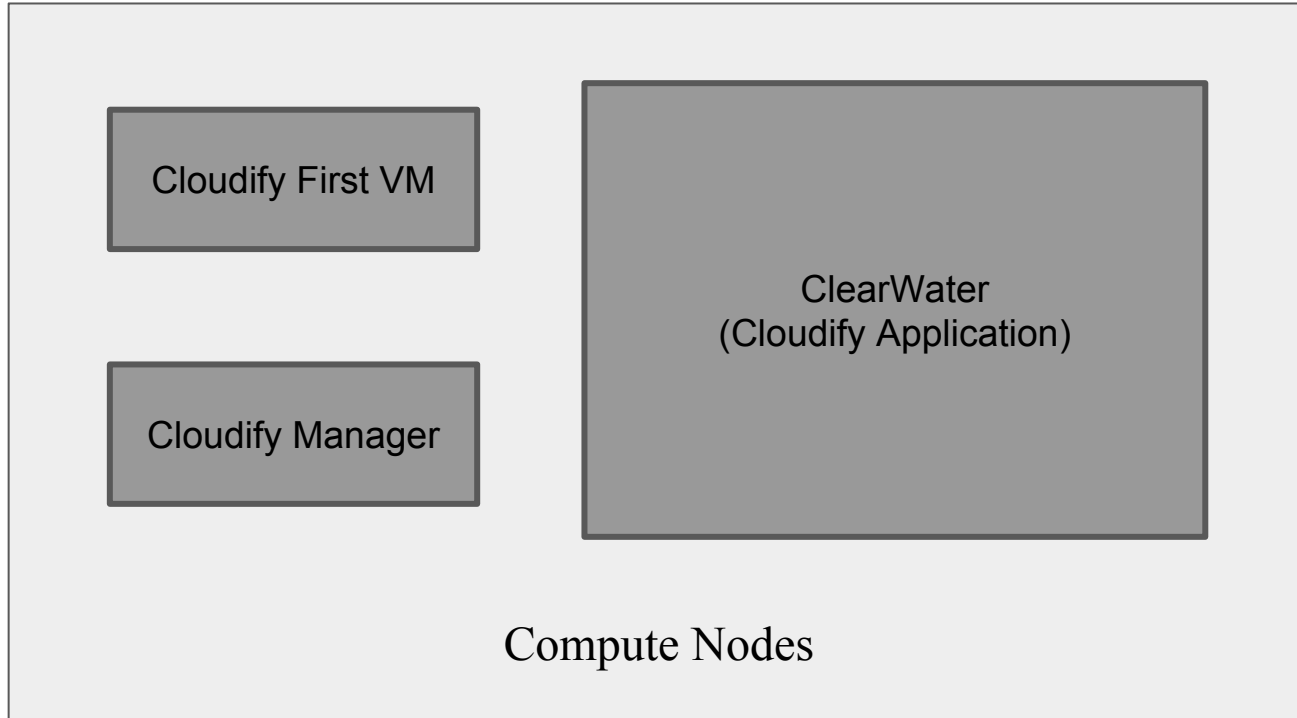
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ClearWater Plan A ✖



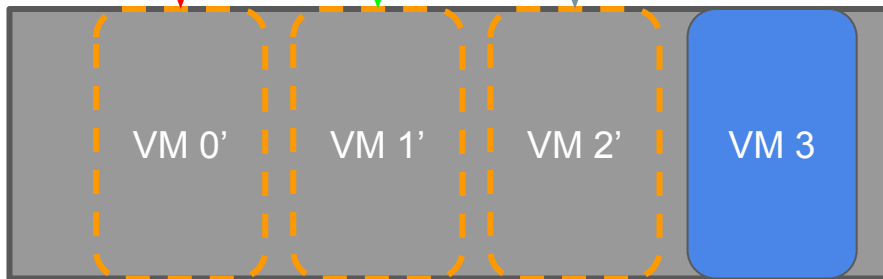
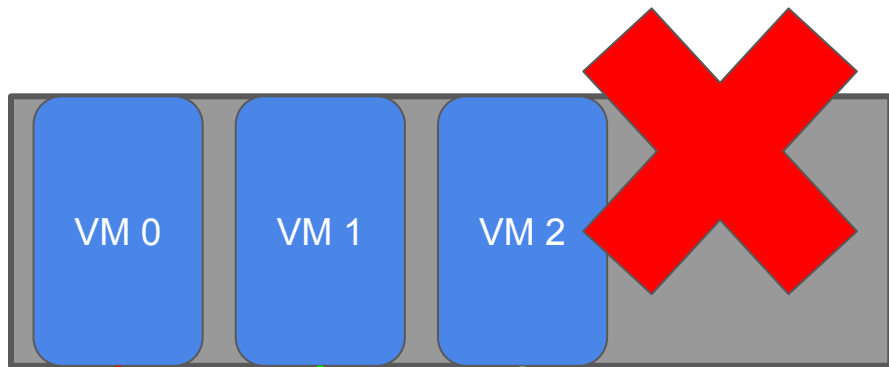
Hook installed failed

ClearWater Plan B ✓

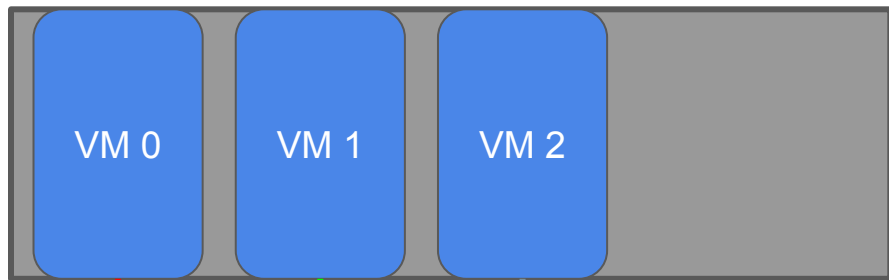


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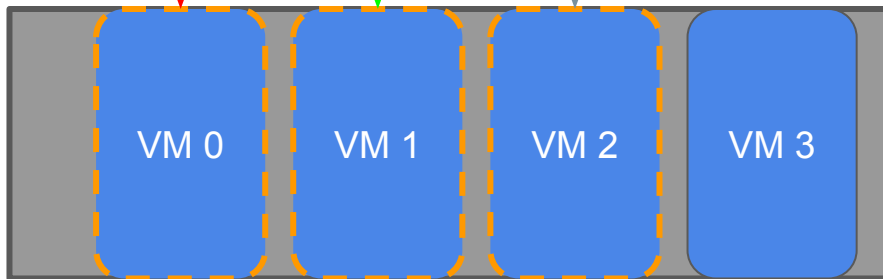
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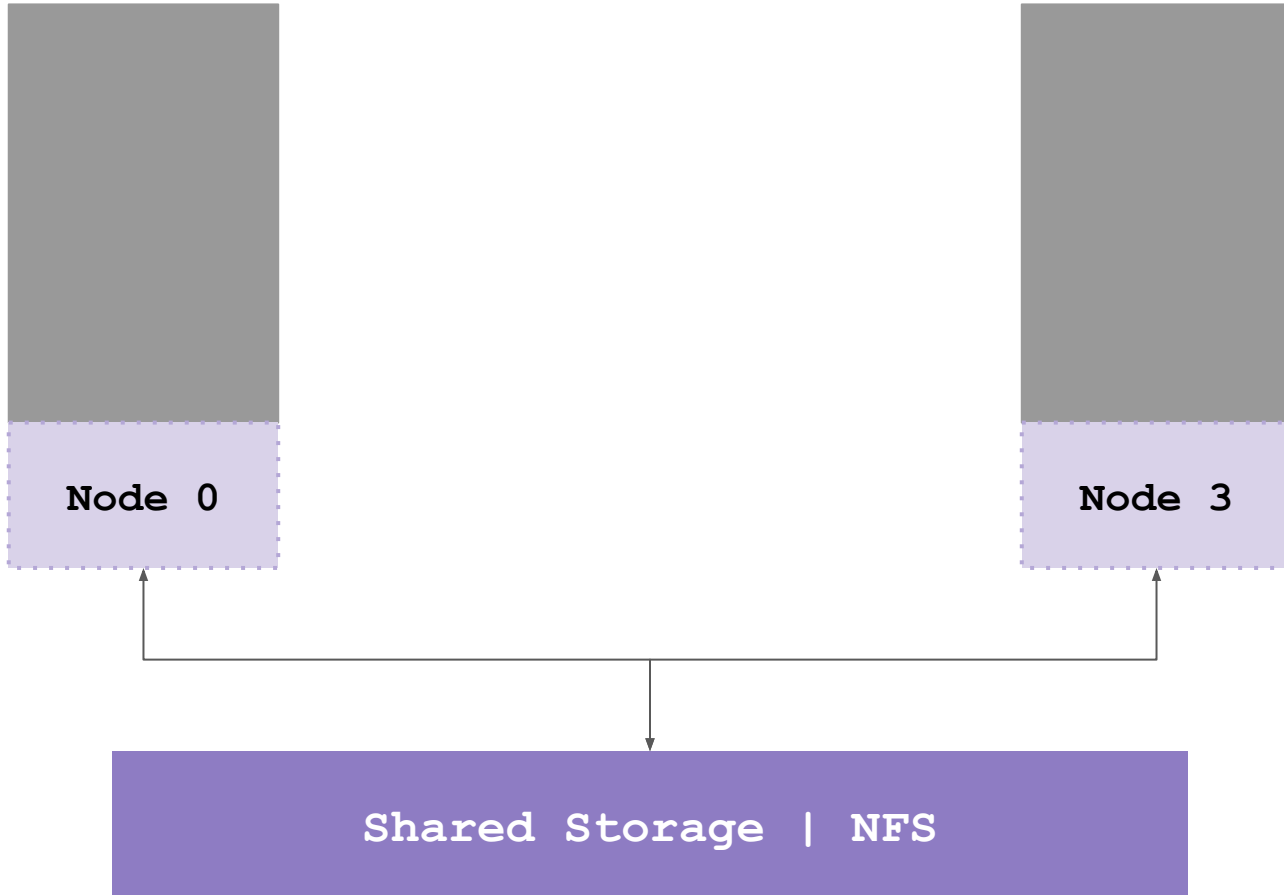


**Nova
evacuate**



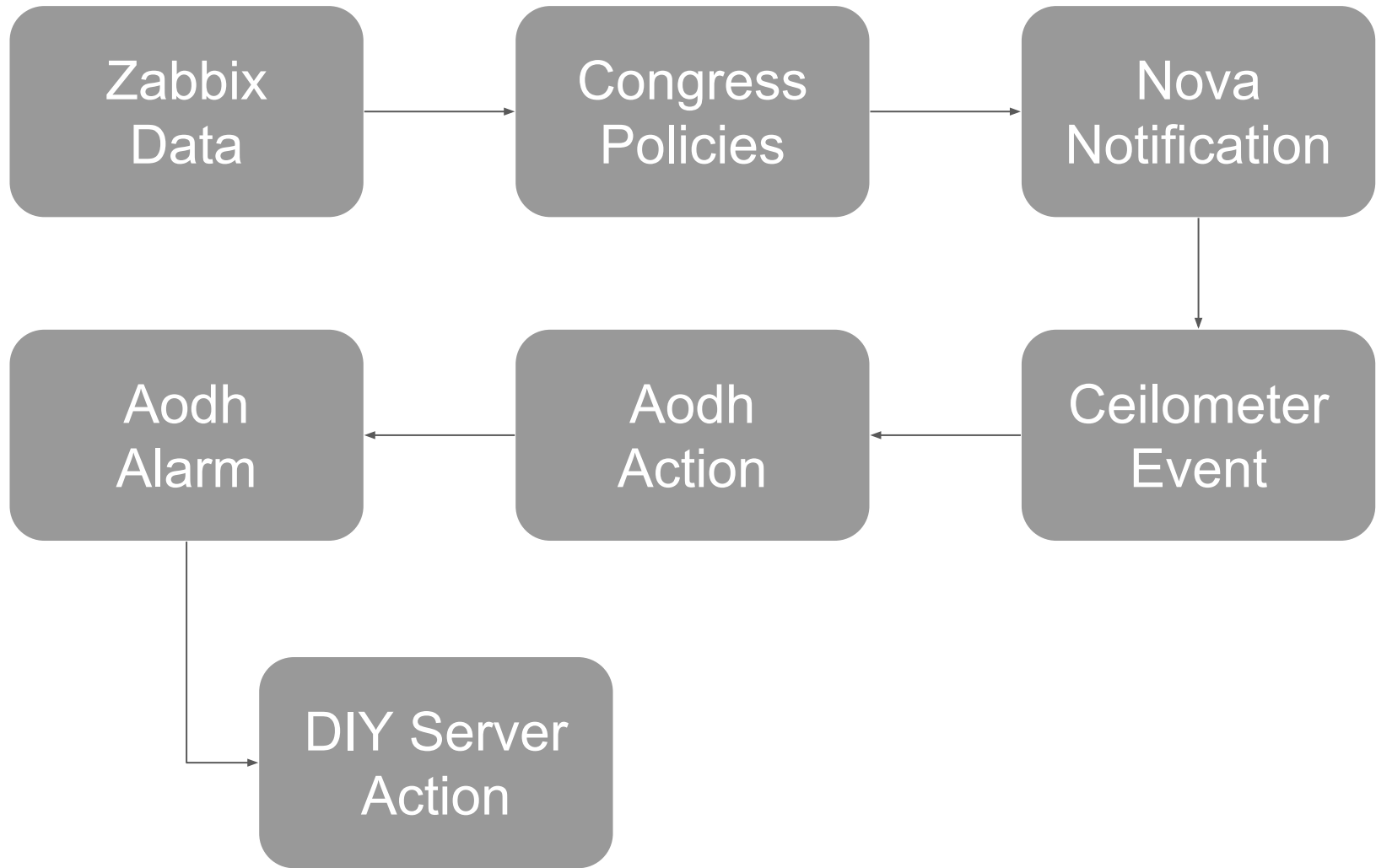
Nova
live-migrate





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Zabbix Data

PUT /v1/data - sources/doctor/tables/events/rows

```
request body:
[
  {
    "time": "2016 - 02 - 22T11:48:55Z",
    "type": "compute.host.down",
    "details": {
      "hostname": "compute1",
      "status": "down",
      "monitor": "zabbix1",
      "monitor_event_id": "111"
    }
  },
  ...
]
```

Congress Policies

```
openstack congress policy rule create \  
  - - name host_down classification \  
  'host_down(host) : - \  
  doctor:events(hostname=host, \  
  type="compute.host.down", status="down") '
```

```
openstack congress policy rule create \  
  - - name active_instance_in_host classification \  
  'active_instance_in_host(vmid, host) : - \  
  nova:servers(id=vmid, host_name=host, \  
  status="ACTIVE") '
```

```
openstack congress policy rule create \  
  - - name host_force_down classification \  
  'execute[nova:services.force_down(host, \  
  "nova - compute", "True")] : - \  
  host_down(host) '
```

```
openstack congress policy rule create \  
  - - name error_vm_states classification \  
  'execute[nova:servers.reset_state(vmid, "error")] \  
  : - host_down(host), \  
  active_instance_in_host(vmid, host) '
```

Nova Notification

```
{
  "event_type": "instance.update",
  "payload": {
    "nova_object.data": {
      "host": "compute",
      "host_name": "some-server",
      "state": "error",
      "state_update": {
        "nova_object.data": {
          "new_task_state": null,
          "old_state": "running",
          "old_task_state": null,
          "state": "error"
        },
      },
    },
    "tenant_id": ...,
    "flavor": {...},
  },
  ...
},
}
```

Ceilometer Event

```
- event_type: 'compute.instance.*'  
  traits: &instance_traits  
    tenant_id:  
      fields: payload.tenant_id  
    user_id:  
      fields: payload.user_id  
    instance_id:  
      fields: payload.instance_id  
    host:  
      fields: publisher_id.`split(., 1, 1)`  
    state:  
      fields: payload.state  
    ...
```

Aodh Action

```
aodh alarm create \  
  --name test_alarm \  
  --type event \  
  --alarm-action  
  "http://127.0.0.1:12346/failure" \  
  --repeat-actions false \  
  --event-type  
compute.instance.update \  
  --query "traits.state=string:error"
```


Aodh Alarm

```
{
  "severity": "low",
  "alarm_name": "test_alarm4",
  "current": "alarm",
  "alarm_id": "c624a1b6-da6a-45b9-b4de-d46aed49c5e4",
  "reason_data": {
    "type": "event",
    "event": {
      "event_type": "compute.instance.update",
      "traits": [
        ["state", 1, "error"],
        ["user_id", 1,
"9f248df069f24ab6bfc07b729450aaba"],
        ["tenant_id", 1,
"a871cfb039644721bcadd108d75b35d7"],
        ["instance_id", 1,
"91562873-61f4-4f06-aace-05a2ff9c1dfb"],
        ["host", 1,
"overcloud-controller-0.opnfvlf.org"],
      ]
    }
  }
}
```

DIY Server Action

POST /servers/{server_id}/action

```
{
  "evacuate": {
    "host": "b419863b7d814906a68fb31703c0dbd6",
    "adminPass": "MySecretPass",
    "onSharedStorage": "True"
  }
}
```

End