

# **Clanavi**

# **Architecture Patterns – Pluggable Any Clouds**

## **Q4 2010**

11/21/2010

Open Operability Project  
DOCOMO USA Labs, Inc.

# Directory Structure

```
aws
+-aws.module
+-modules
  +-aws_ec2/aws_ec2_api.*
  +-aws_ec2/aws_ec2_lib.*

cloud
+-cloud.module
+-modules
  +-cloud_activity_audit/cloud_activity_audit.*
  +-cloud_alerts/cloud_alerts.*
  +-cloud_auto_scaling/cloud_auto_scaling.*
  +-cloud_billing/cloud_billing.*
  +-cloud_cluster/cloud_cluster.*
  +-cloud_failover/cloud_failover.*
  +-cloud_inputs/cloud_inputs.*
  +-cloud_pricing/cloud_pricing.*
  +-cloud_resource_allocator.*
  +-cloud_scripting/cloud_scripting.*
  +-cloud_server_templates/cloud_server_templates.*

iaas
+-modules
  +-amazon_ec2/amazon_ec2.*
  +-openstack_nova/openstack_nova.*
  +-libvirt_support/libvirt_support.*
  +-xcp/xcp.*
```

# Use Case Diagram

Drupal

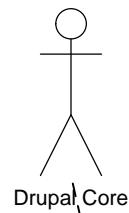
## Cloud Abstraction Operations

### Instance Operations

- Launch
- Suspend
- Terminate
- Resume
- Reboot
- Hard Reboot
- Console
- Clone
- Copy
- Monitor
- Hard Shutdown

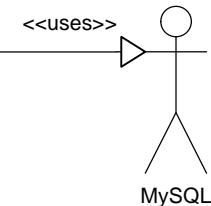
### Image Operations

- Bundle Image
- Upload Image
- Register Image
- Destroy
- Snapshot
- Snapshot Restore



Drupal Core

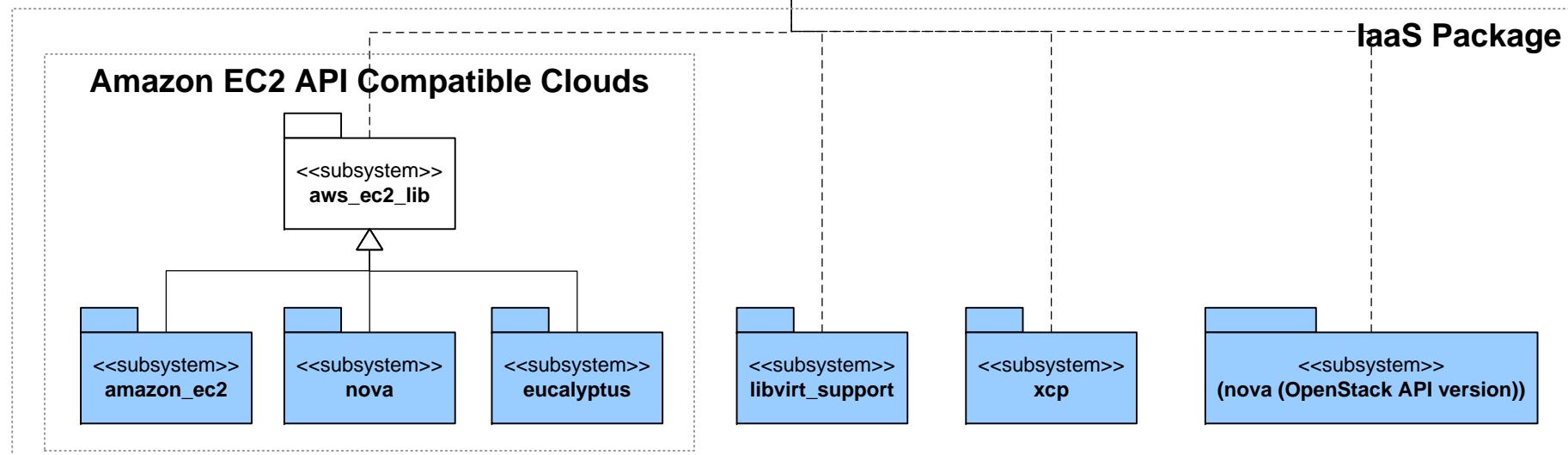
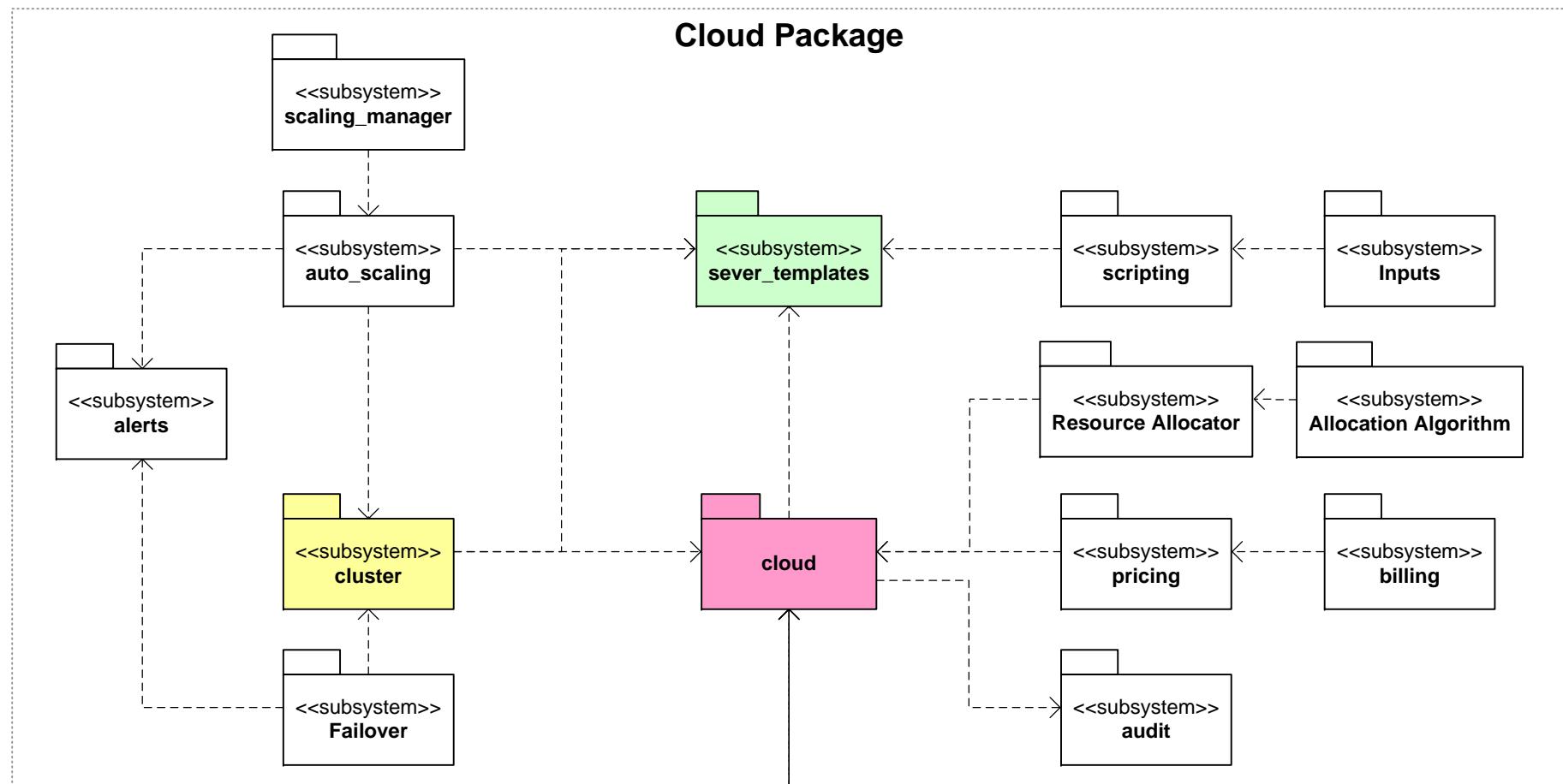
AuthN and AuthZ  
Module Management



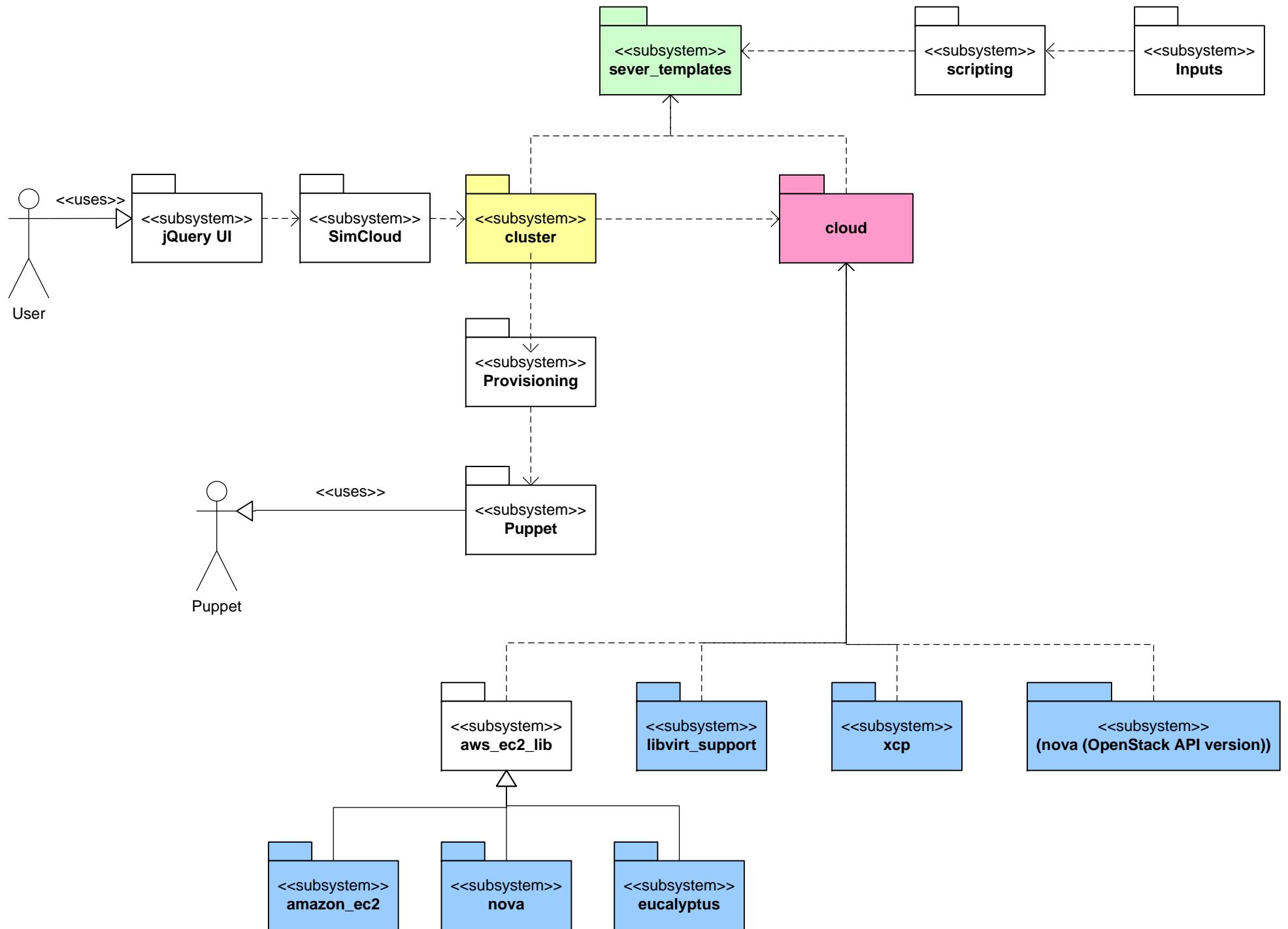
<<uses>>

# Module Diagram

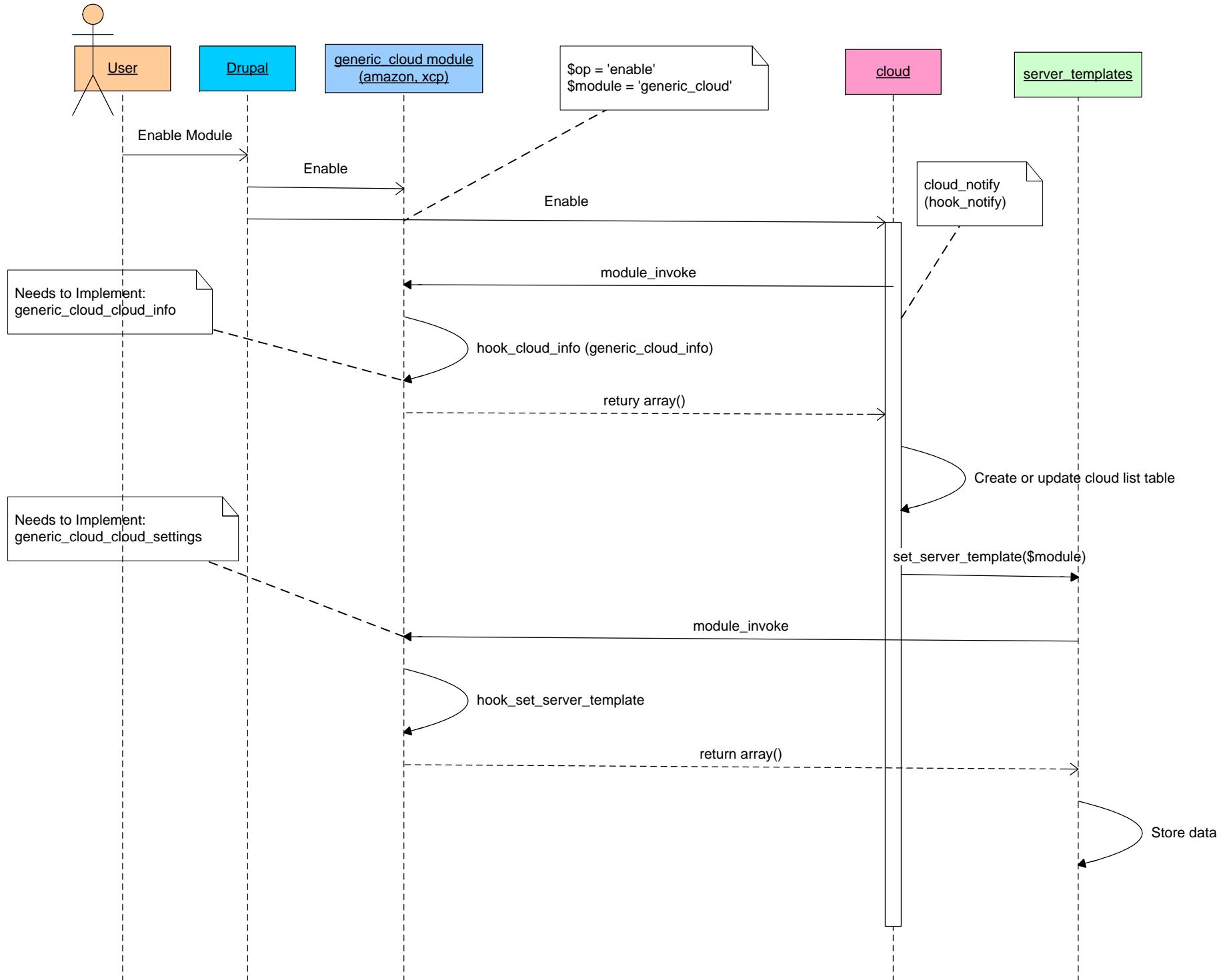
Dependency  
----->



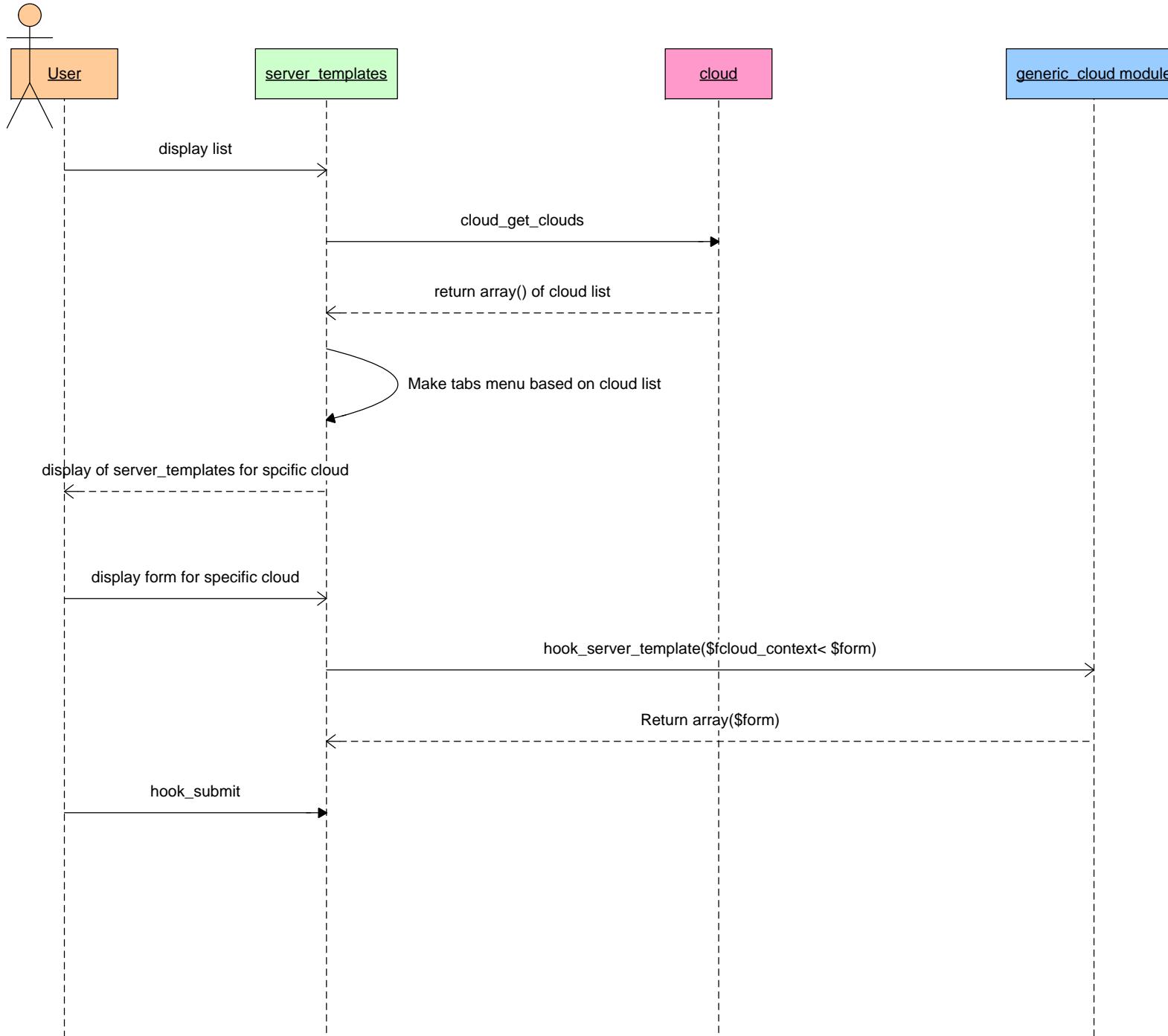
# Module Diagram (for SimCloud)



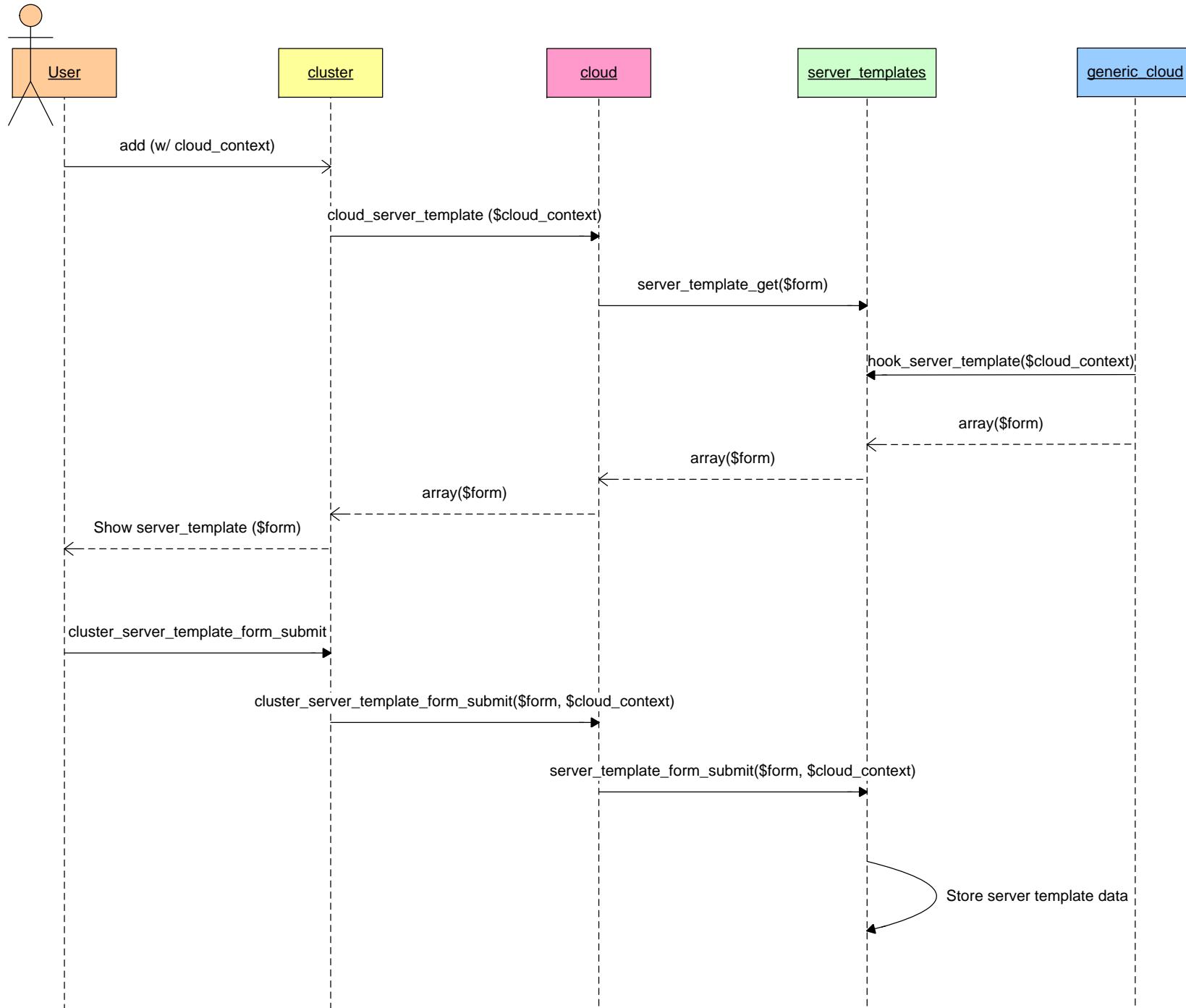
# Cloud Module Provisioning Sequence



# Server Templates Sequence



# Cluster Operation Sequence



# Cloud Operations (Launch Instance)

