

# OPENSTACK的持續整合

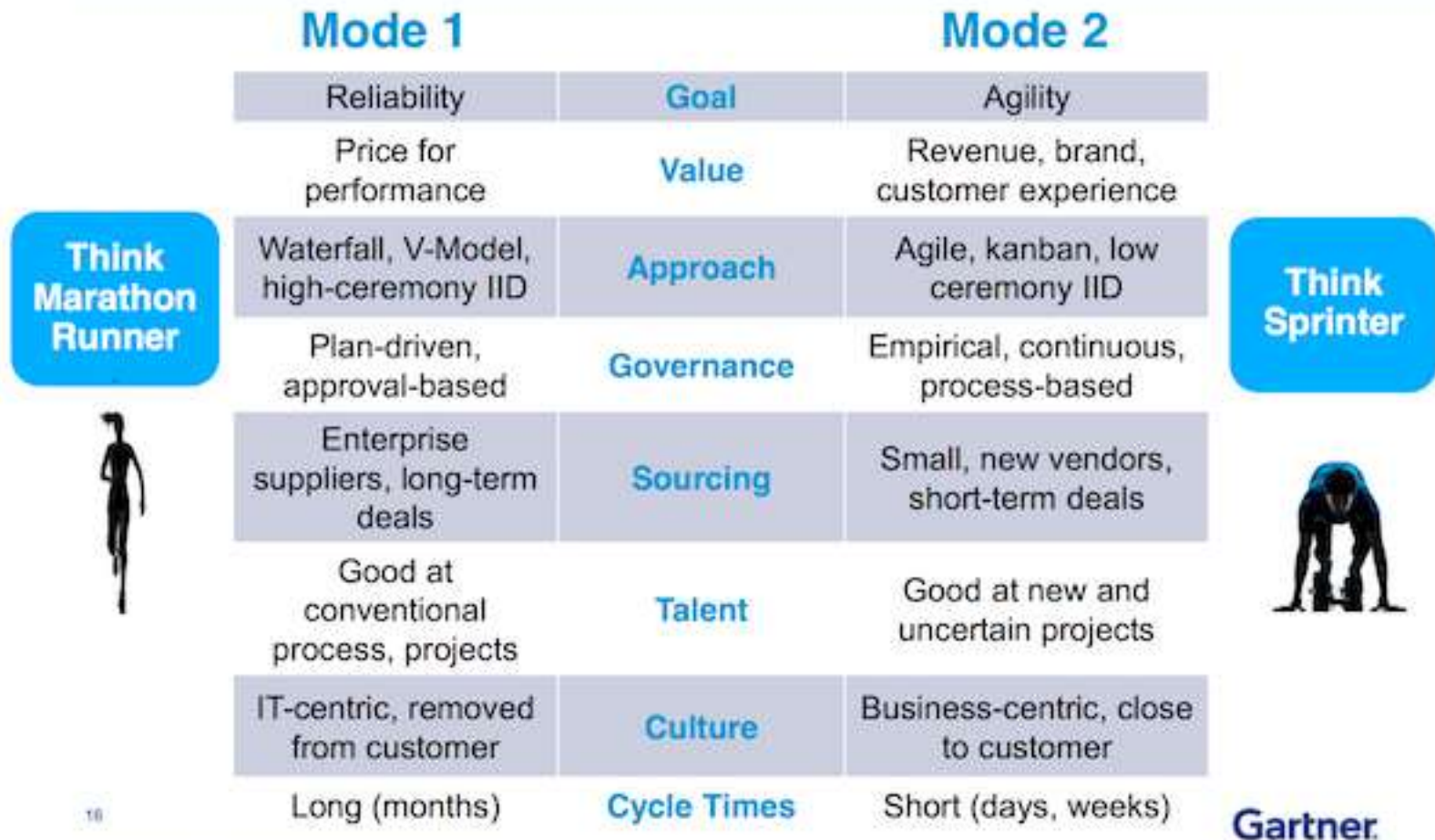
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Red Hat

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# Implication – IT moves to a bimodal organization



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# Testing



# 用於管理業務不斷變化的寓言



傳統的補丁週期中停機時間窗口



持續交付

# CI/CD for OpenStack infrastructure?

**If I had an hour to solve a problem and my life depended on the solution, I would spend the first 55 minutes determining the proper question to ask, for once I know the proper question, I could solve the problem in less than five minutes.**

**-- Albert Einstein**

假如我有一個小時來解決一個決定我生存的問題，我會花第55分鐘確定是什麼問題的問題，因為一旦我知道正確的問題，我能在不到5分鐘解決問題。

--爱因斯坦

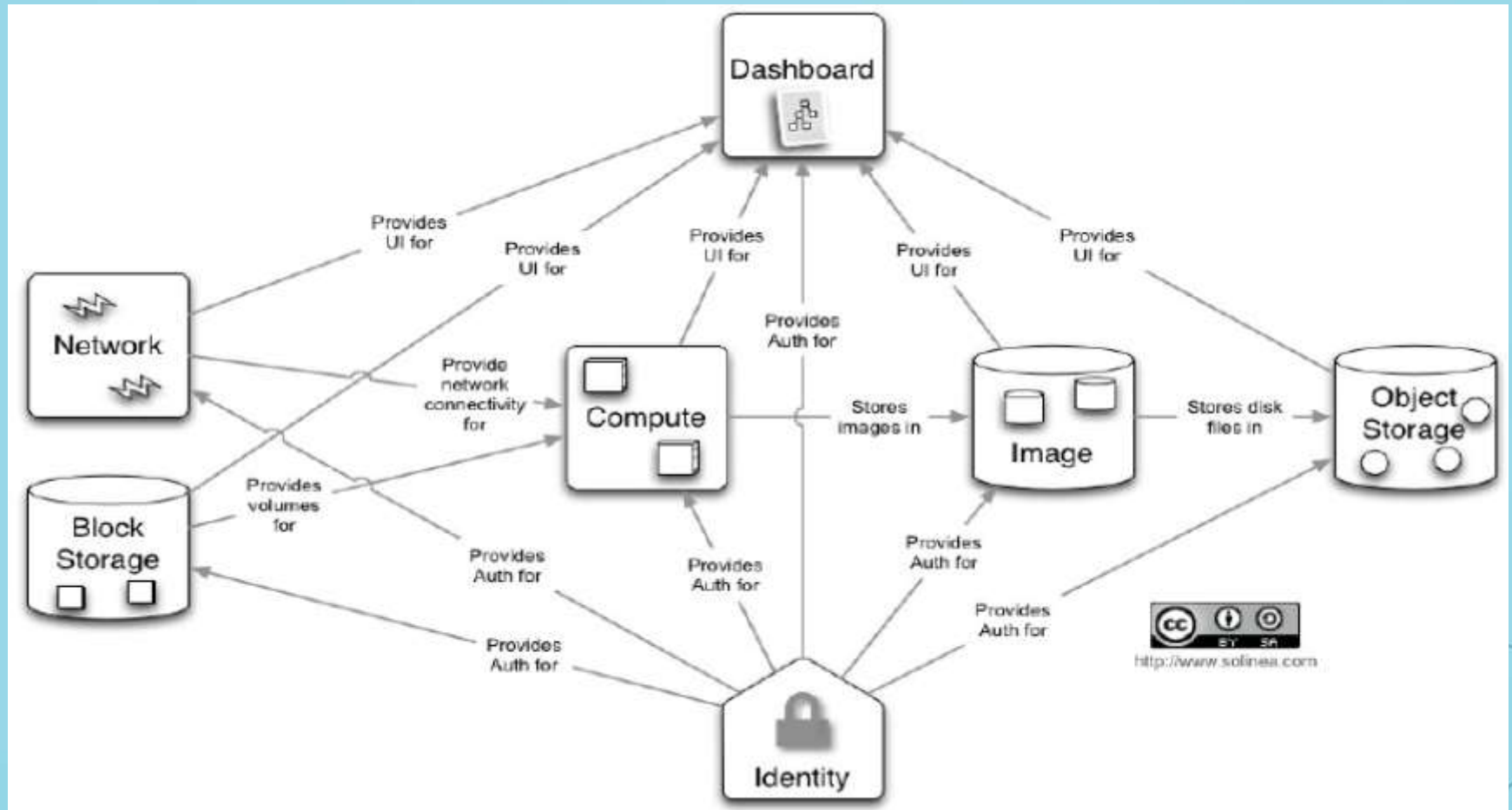
挑戰：你怎麼能連續提供並整合最新的OpenStack基礎架構和平台部署和維護應用程式？

解藥：透過不斷更新和部署的OpenStack基礎架構建設和測試應用程式，然後可以在一個單元部署到生產。

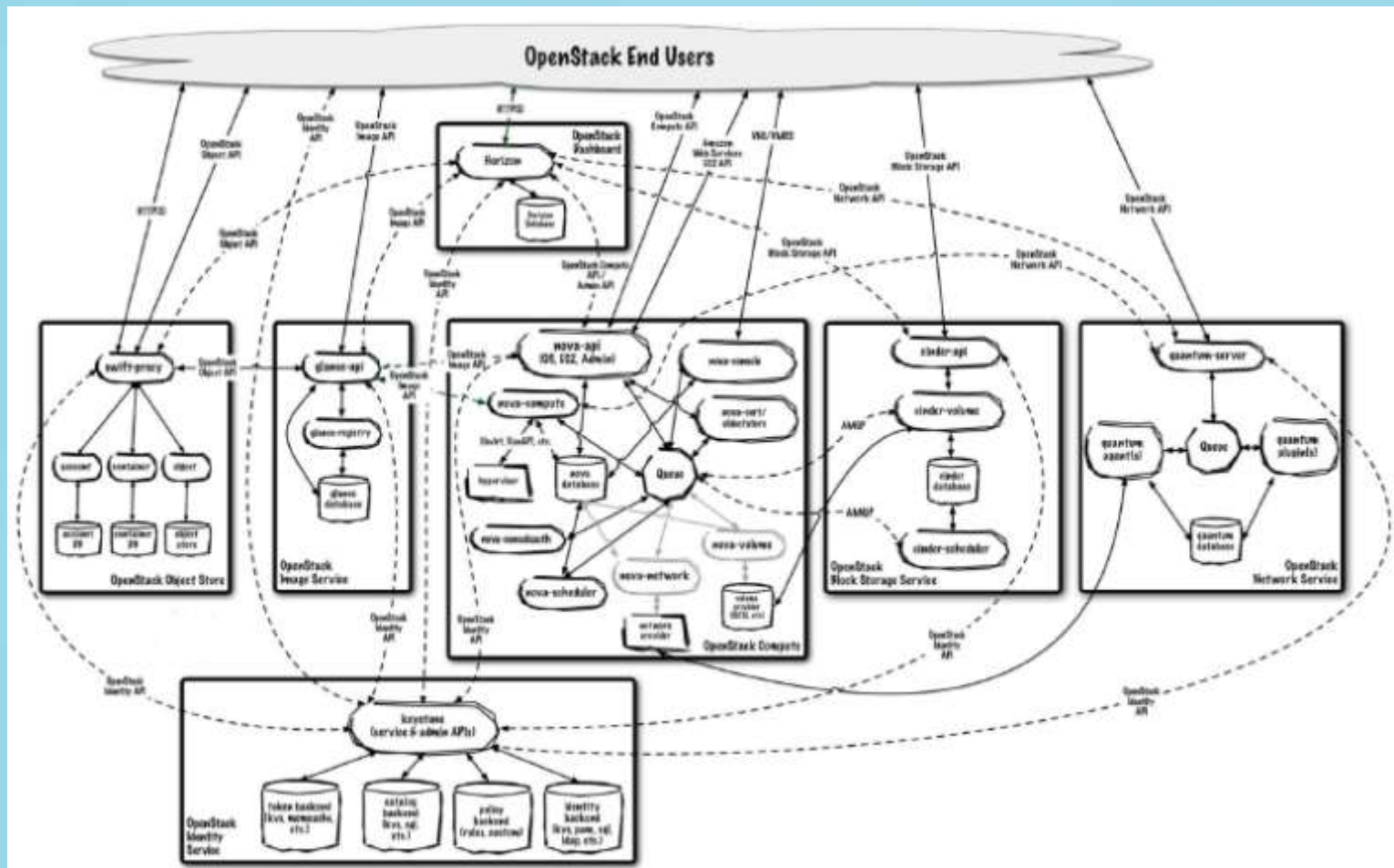
容器技術是這個解決方案的一種方式



# OpenStack之美



現實...





# 開發的生活好不容易





# 如果有...

- 隔離的、輕量的、可移動的
- 預整合的
- 輕鬆地描述運行時間的關係
- 輕盈運行並且容易升級



# 如果有...

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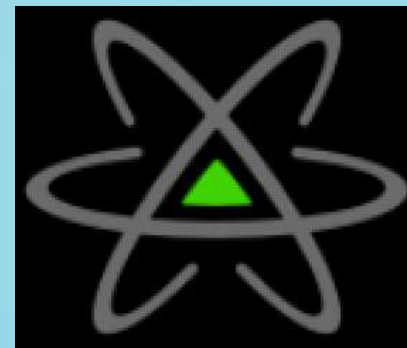
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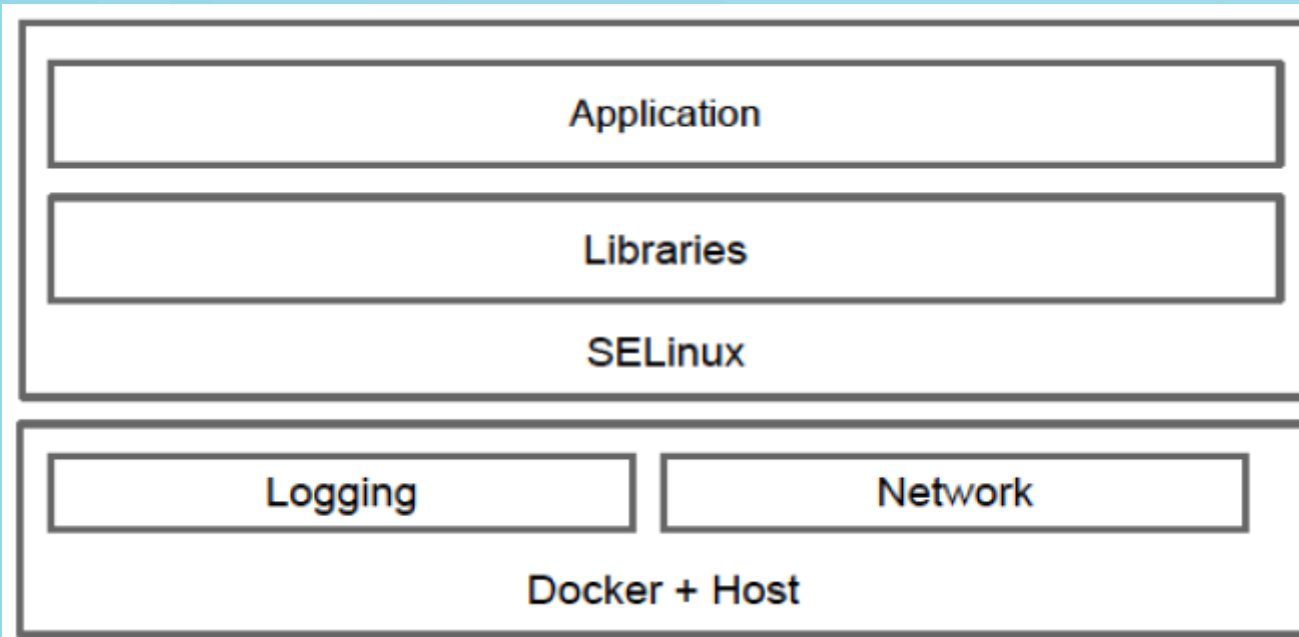


# 如果有...

- 隔離的、輕量的、可移動的
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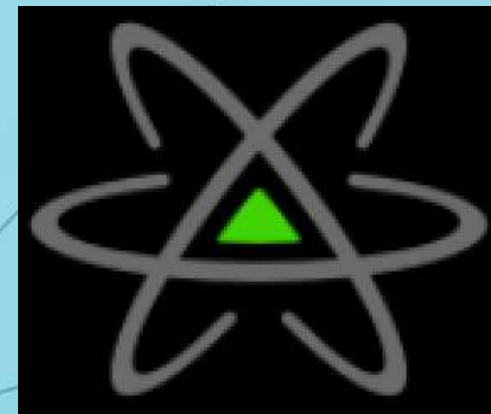


# Atomic...



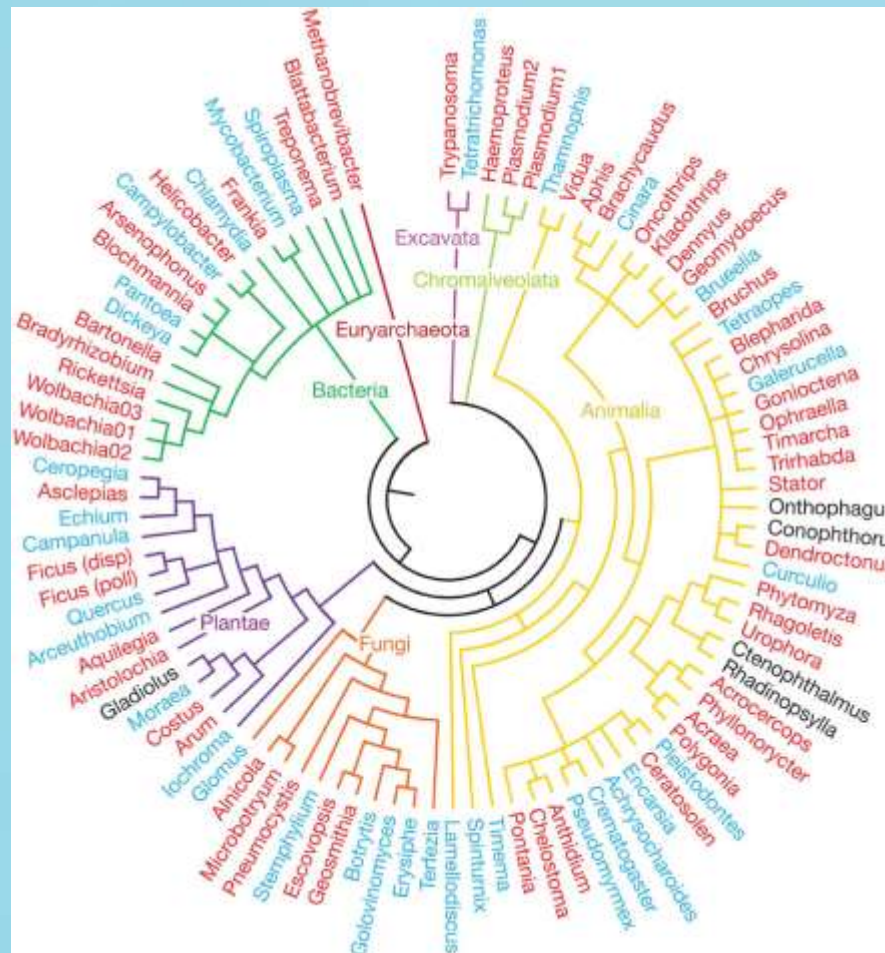
**rpm-ostree upgrade**

**rpm-ostree rollback**

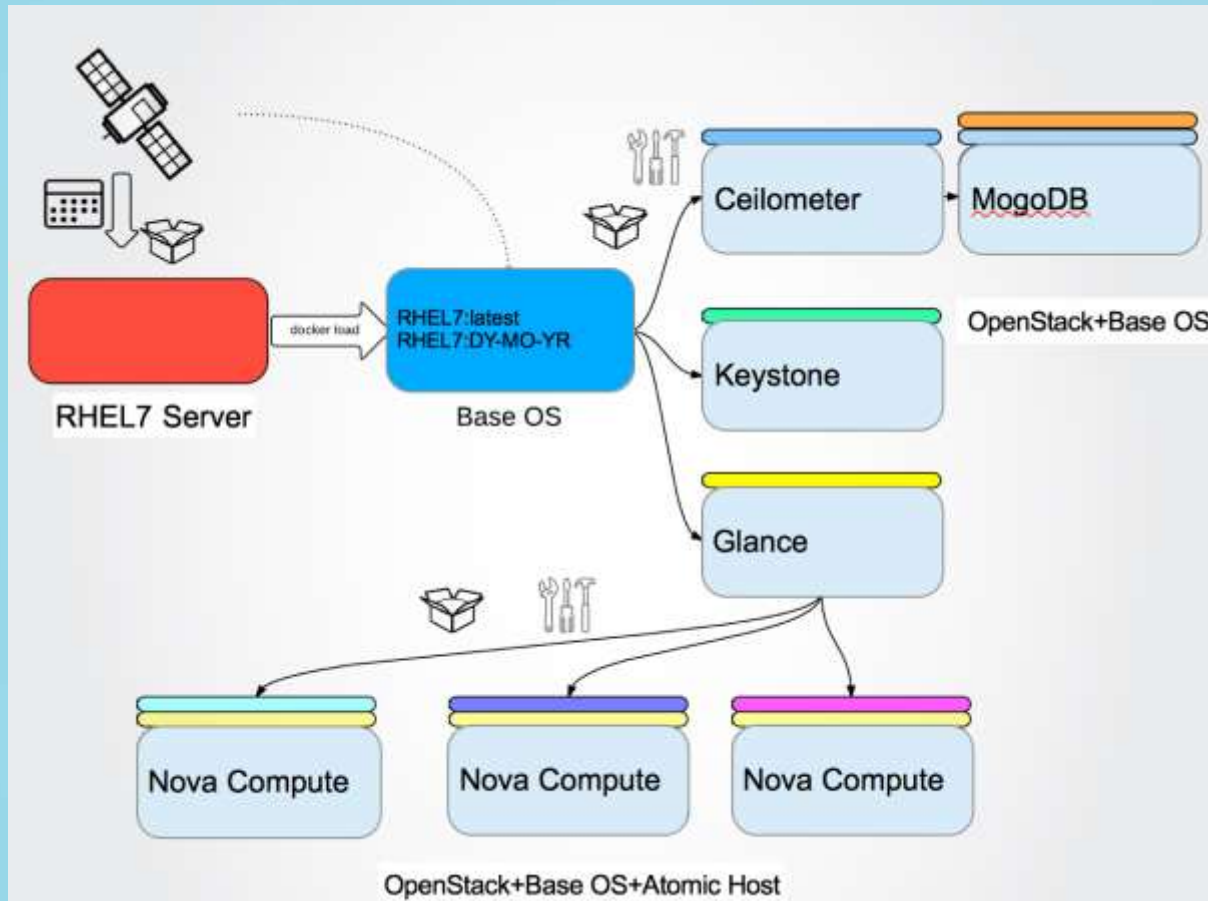




# 家譜--Docker tags



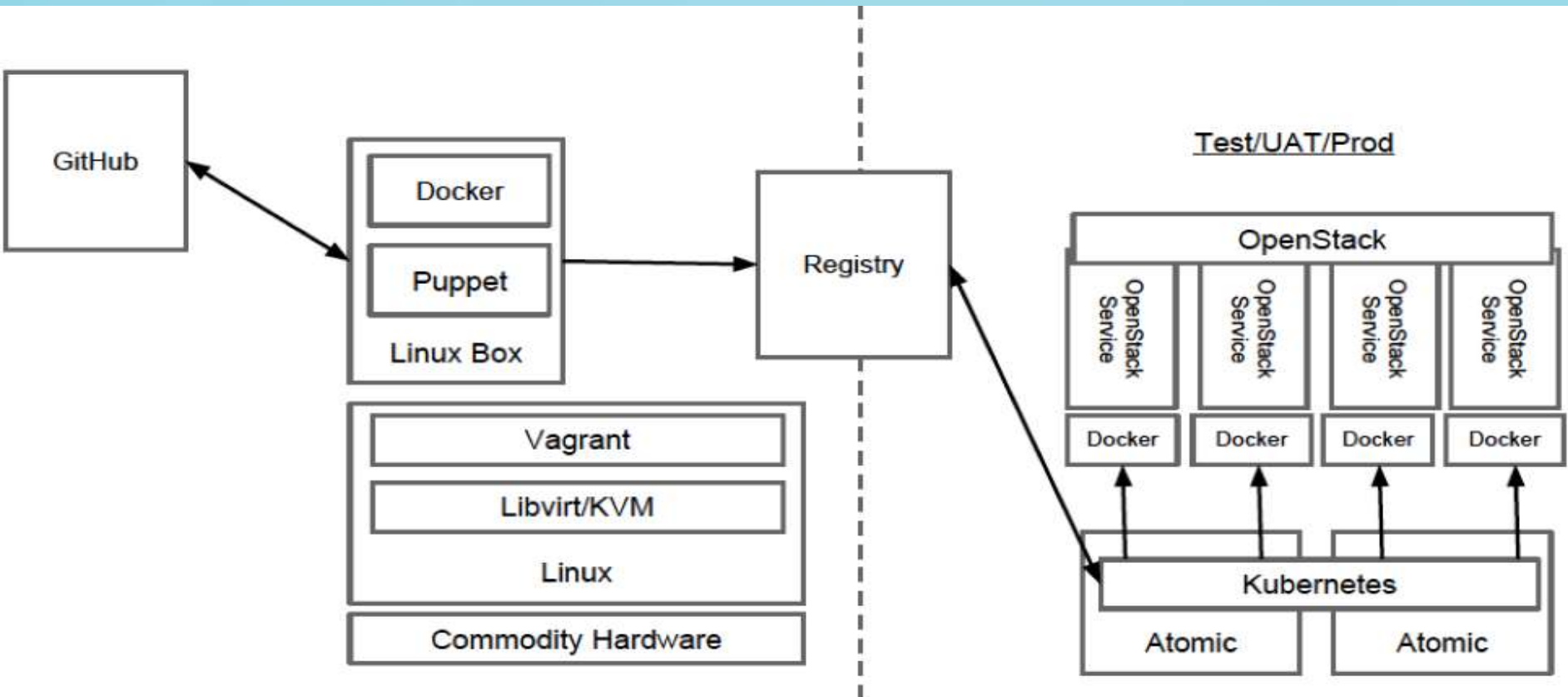
# Atomic 家譜



# Factory



# 從開發到維運





# Test at multiple levels

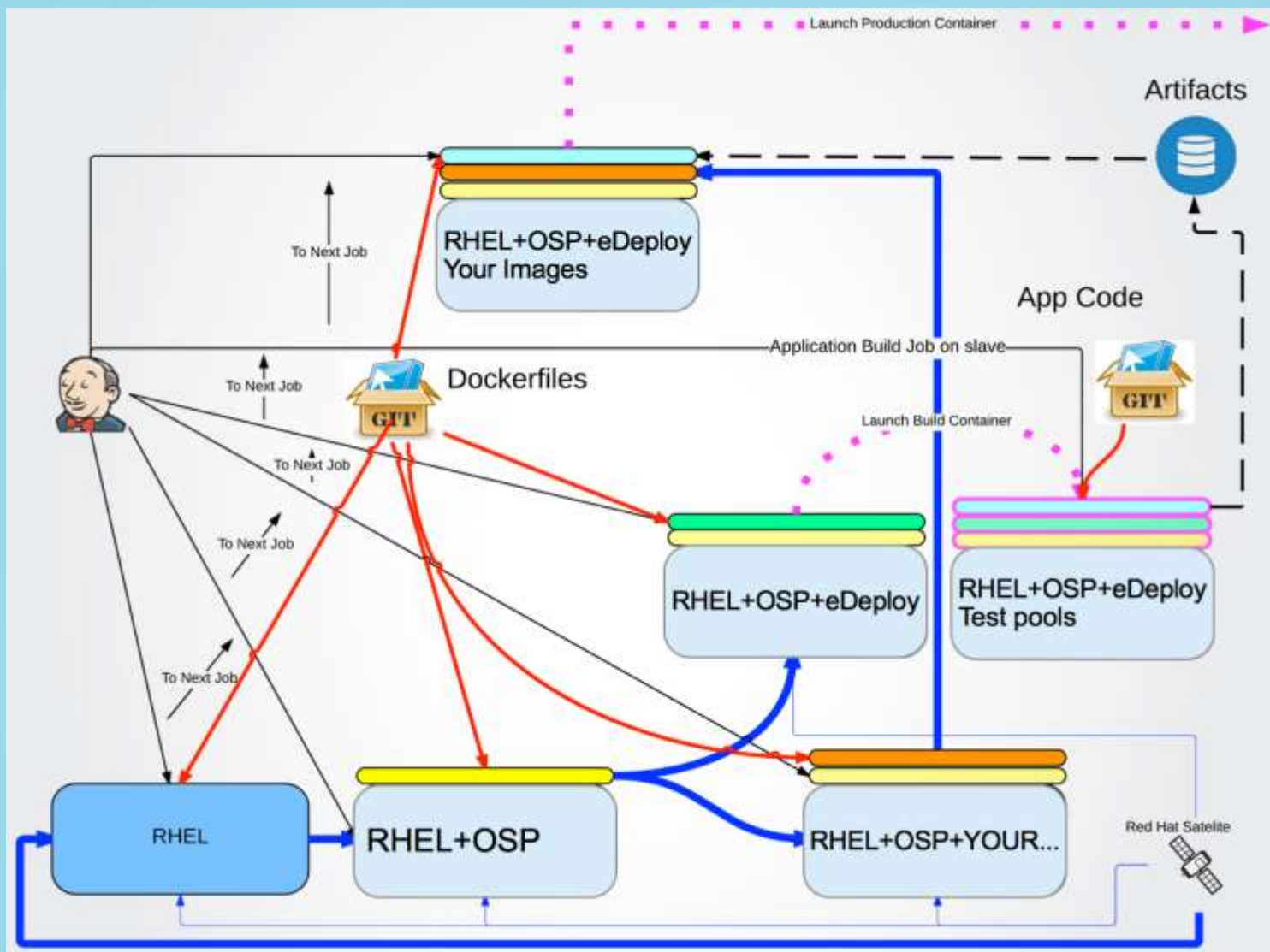


Of course I “tested” the app before production!

- 在整合過程中單元測試您的應用程式
- 規劃自動化整合測試：啟動容器的整個應用程式堆疊和驅動容器運行測試
- 減少人為干預盡可能因為它會成為瓶頸







# 容器的訂閱管理

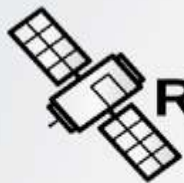
- 使用RHEL7訂閱模式，如果你想創建Docker鏡像或容器，必須合適的註冊和資格在您建構它們的主機上。
- 如果您使用的Red Hat `registry.access.redhat.com` Docker鏡像，當您使用容器內yum來添加或升級包，容器會自動造訪到RHEL7主機可用的儲存庫。
- 容器可以得到適當的庫RPM包，以便RHEL6鏡像和RHEL7鏡像可以在同一RHEL7容器主機上共存。



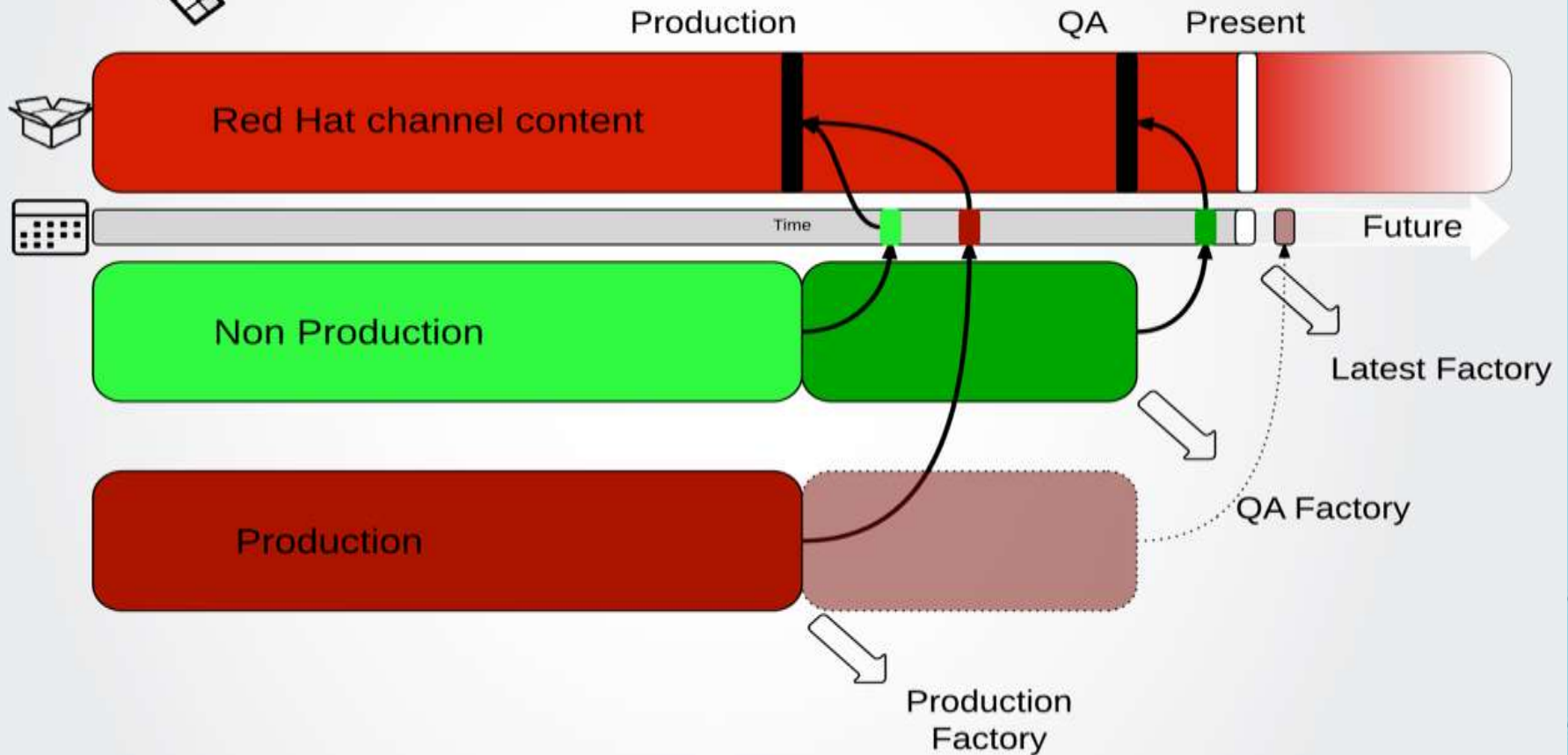
# Satellite 6 for containers

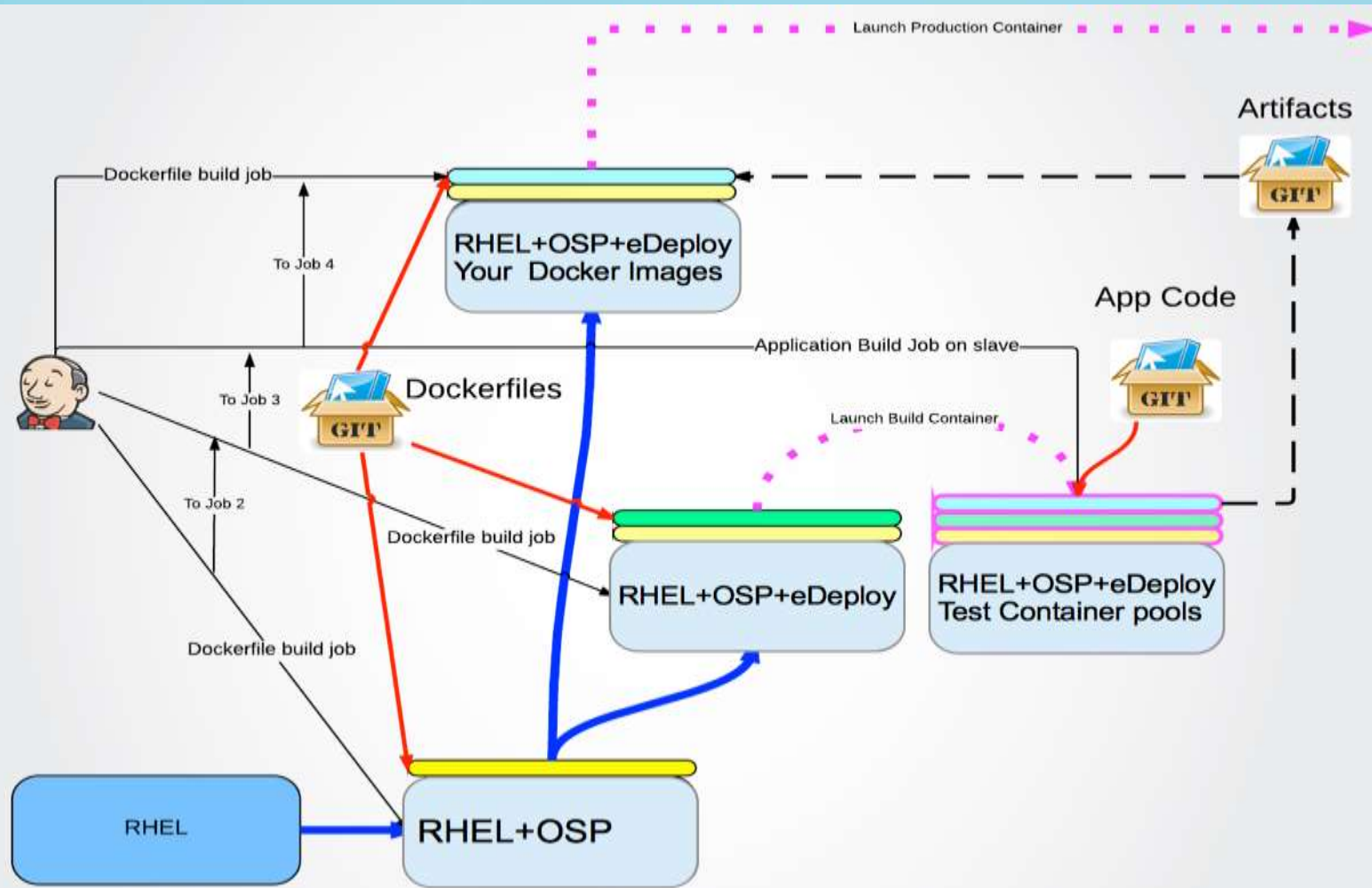
1. In Satellite 6 create a composite view that includes your:  
RHEL6 content view  
RHEL7 content view
2. Create an activation key that enables only the RHEL7 repos for the RHEL7 container host can be used for provisioning.
3. Containers can now access RHEL6 repos from your Satellite 6 server.  
Take advantage of content management capabilities
4. Library matches latest content from Red Hat Network
5. Lifecycle environments can match your needs for managed changes
  - QA
  - Next
  - PRD





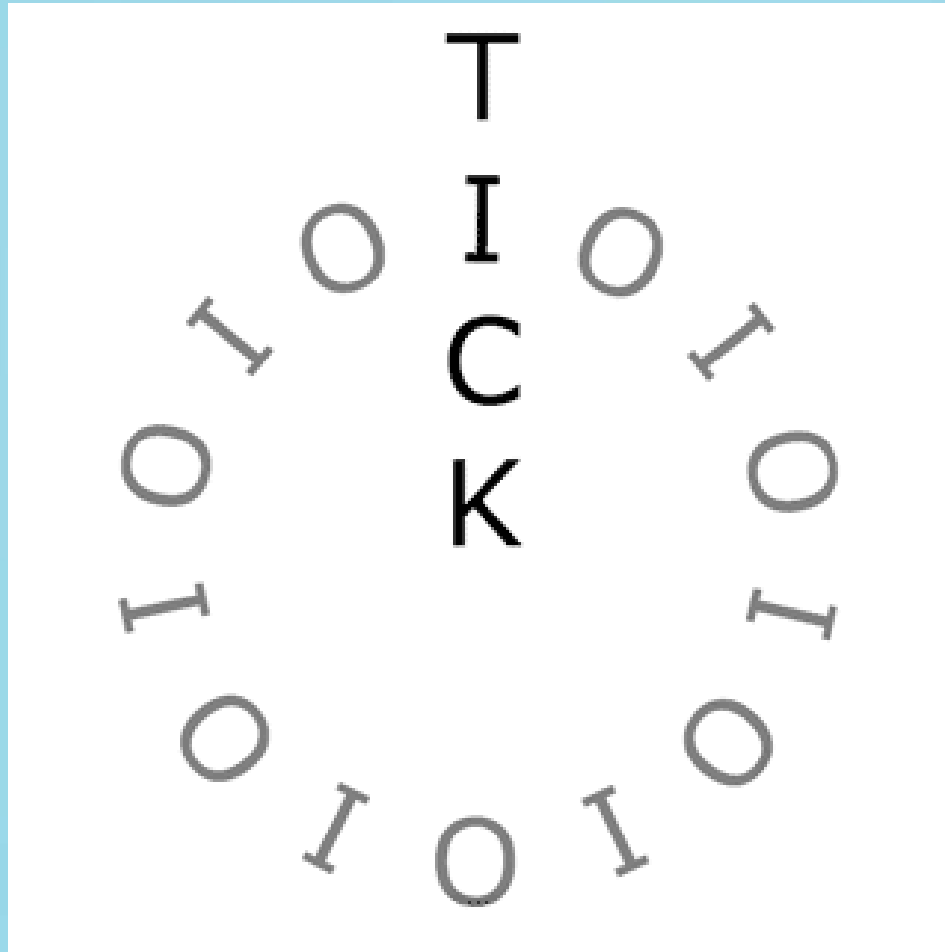
## Red Hat Satellite - Manage input to factory lines







# 補丁週期變成了割接

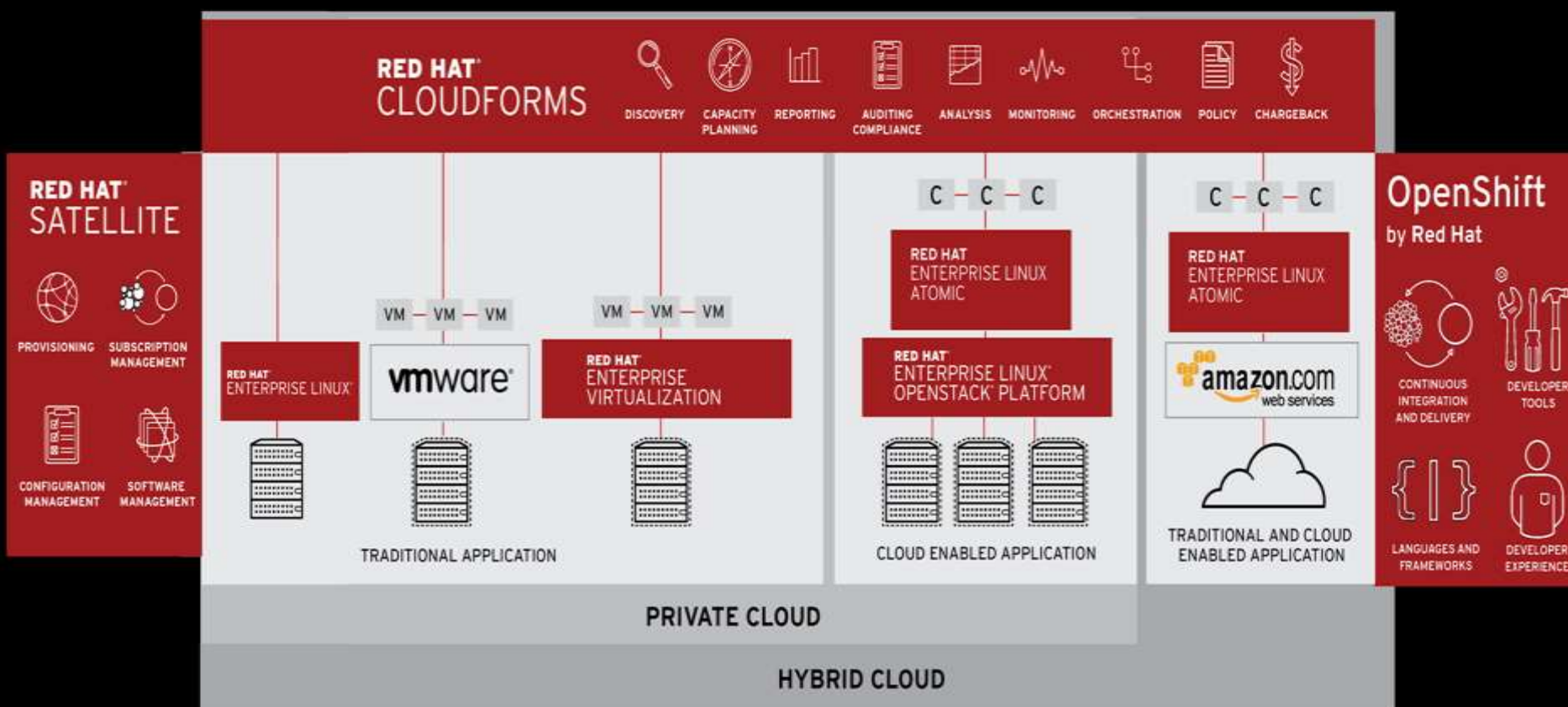


# 其他好處

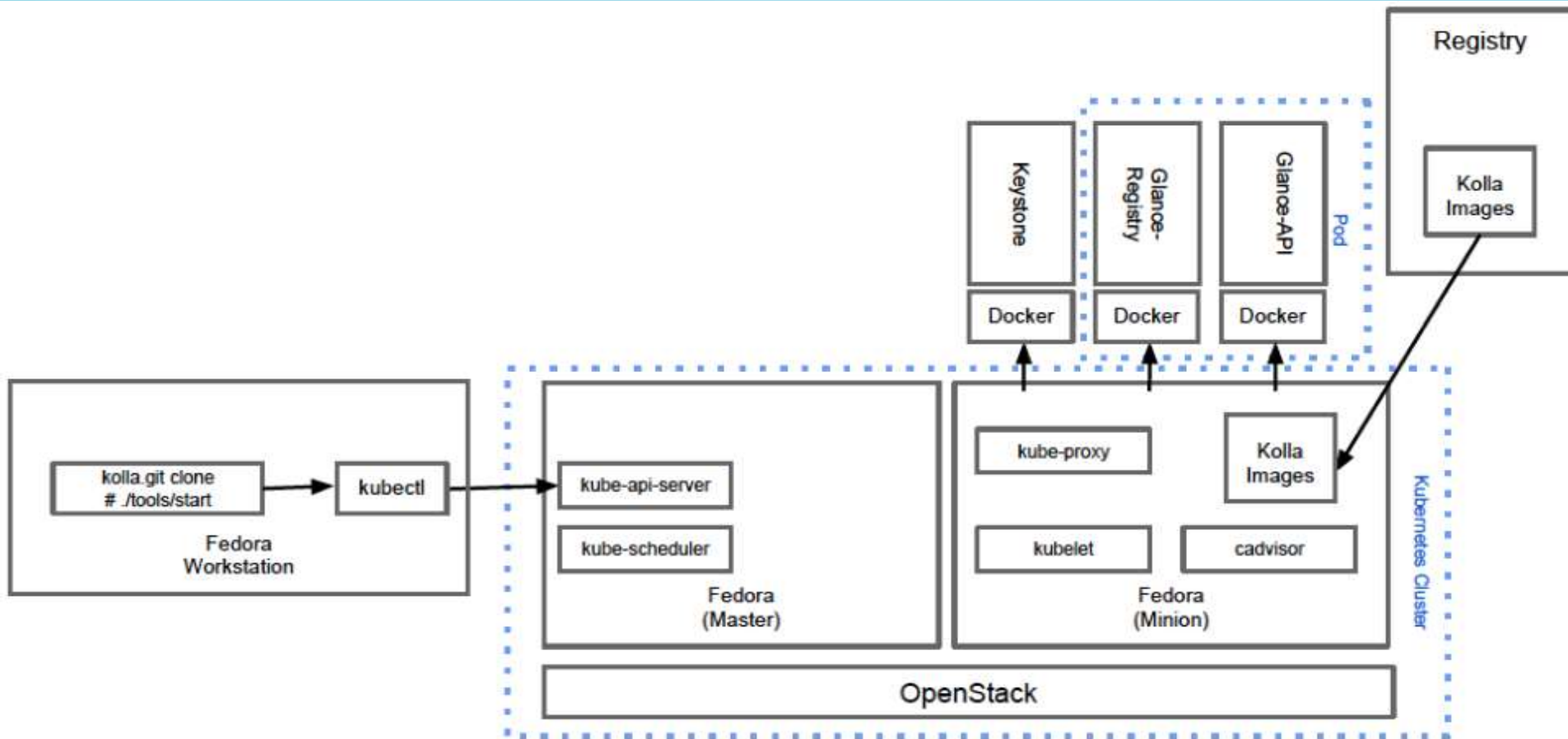
1. **Backup/Restore or DR ready**
  - Jenkins server
  - Satellite 6
  - Source code repositories
  - Databases and systems of record
2. **Rebuild instead of Restore reduces backup load and time to recovery**
  - Platform containers
  - Build containers
  - Application containers
3. **Rapid security response**
  - Cherry pick critical security patch and promote content in Satellite 6 for an emergency patch to rebuild the production line
4. **Always ready to deploy**
  - Latest builds available for OS, OpenStack Platform, Application changes
  - Take images anywhere to develop or deploy, developer laptop or cloud provider



# Red Hat Portfolio



# Try it ...



# Communities

<https://github.com/docker/docker>

<https://github.com/GoogleCloudPlatform/kubernetes>

<https://github.com/projectatomic/>

<https://github.com/openshift/origin-server>

<https://blueprints.launchpad.net/kolla/>

<https://github.com/larsks/heat-kubernetes>

[https://access.redhat.com/downloads/content/271/ver=7/rhel---7/7.1.0/x86\\_64/product-downloads](https://access.redhat.com/downloads/content/271/ver=7/rhel---7/7.1.0/x86_64/product-downloads)





**謝謝！**

