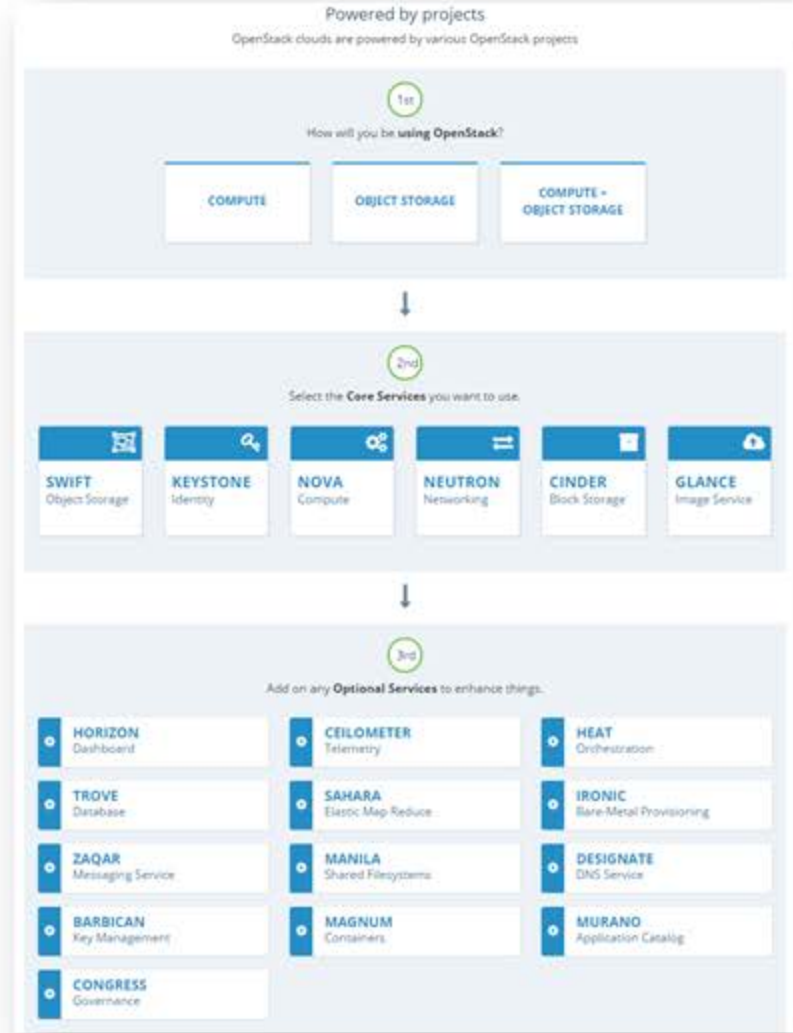
OpenStack概述

概述

- OpenStack概述
- OpenStack架构

OpenStack概述

- 什么是OpenStack
- 核心服务 Core Services
- 可选服务 Optional Services



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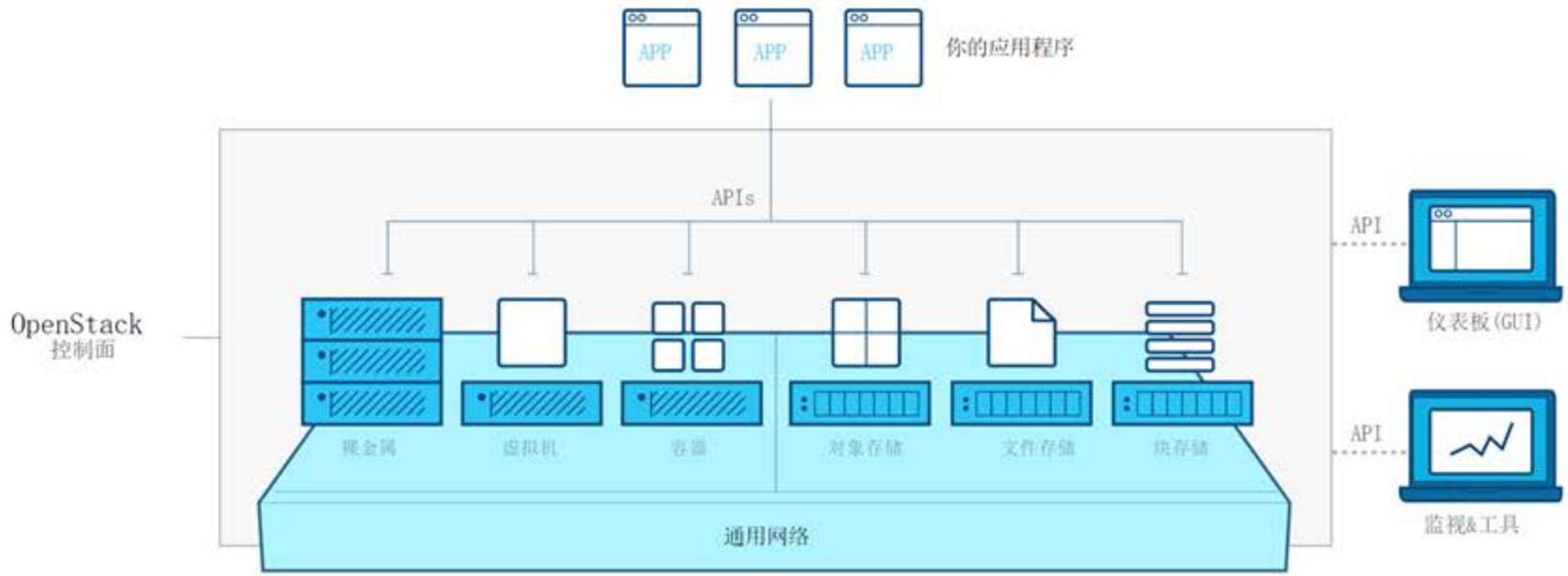
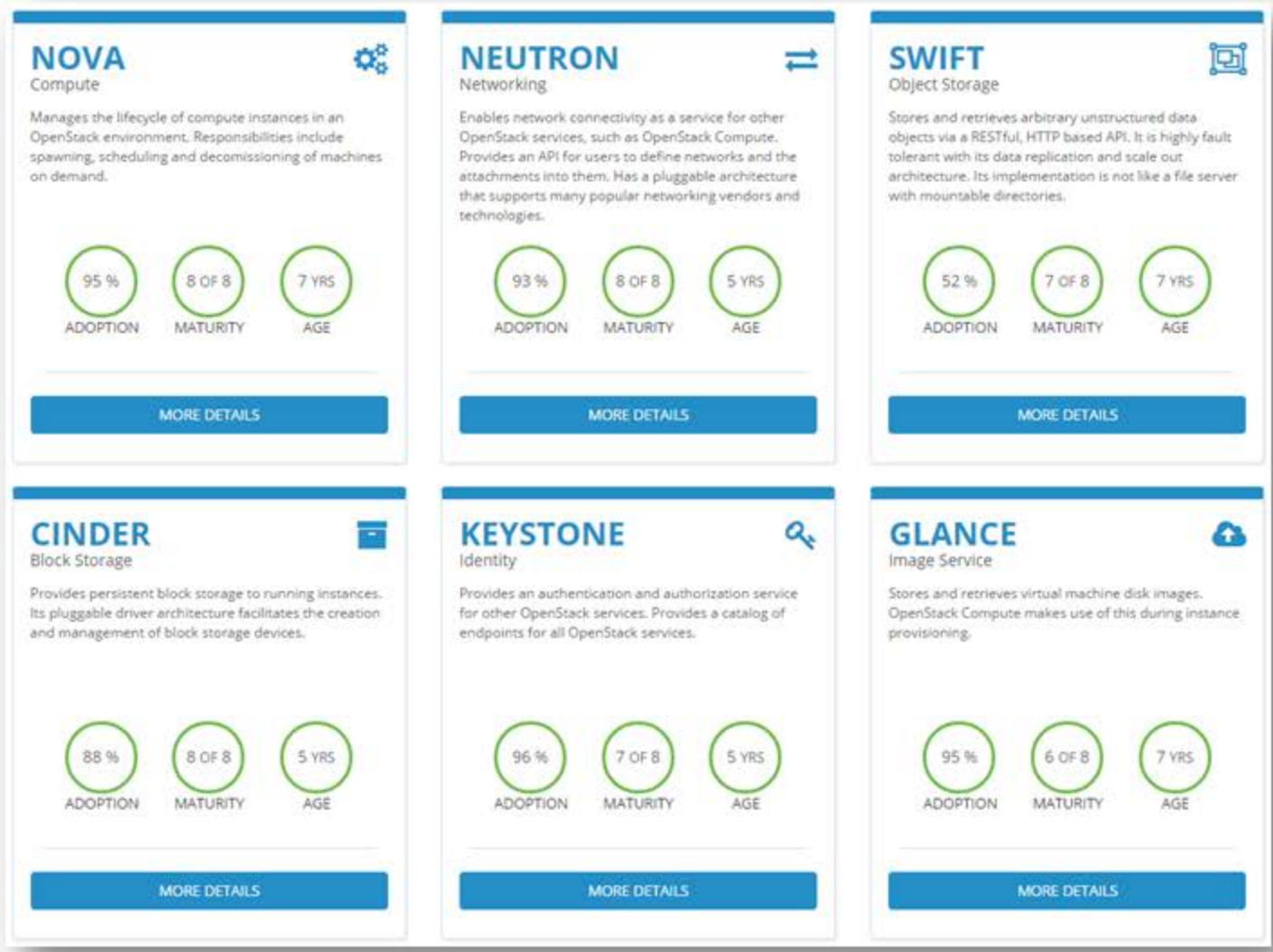
什么是OpenStack？



OpenStack is a cloud operating system that controls large pools of compute, storage, and networking resources throughout a datacenter, all managed through a dashboard that gives administrators control while empowering their users to provision resources through a web interface.

核心服务 Core Services



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可选服务 Optional Services

Optional Services (13 Results)

NAME	SERVICE	MATURITY	AGE	ADOPTION
Horizon	Dashboard	6 of 8	5 Yrs	87 %
Ceilometer	Telemetry	1 of 8	4 Yrs	55 %
Heat	Orchestration	6 of 8	4 Yrs	67 %
Trove	Database	3 of 8	3 Yrs	13 %
Sahara	Elastic Map Reduce	3 of 8	3 Yrs	10 %
Ironic	Bare-Metal Provisioning	5 of 8	3 Yrs	21 %
Zaqar	Messaging Service	4 of 8	3 Yrs	4 %
Manila	Shared Filesystems	5 of 8	3 Yrs	14 %
Designate	DNS Service	3 of 8	3 Yrs	16 %
Barbican	Key Management	4 of 8	3 Yrs	9 %
Magnum	Containers	2 of 8	2 Yrs	11 %
Murano	Application Catalog	1 of 8	2 Yrs	11 %
Congress	Governance	1 of 8	2 Yrs	2 %

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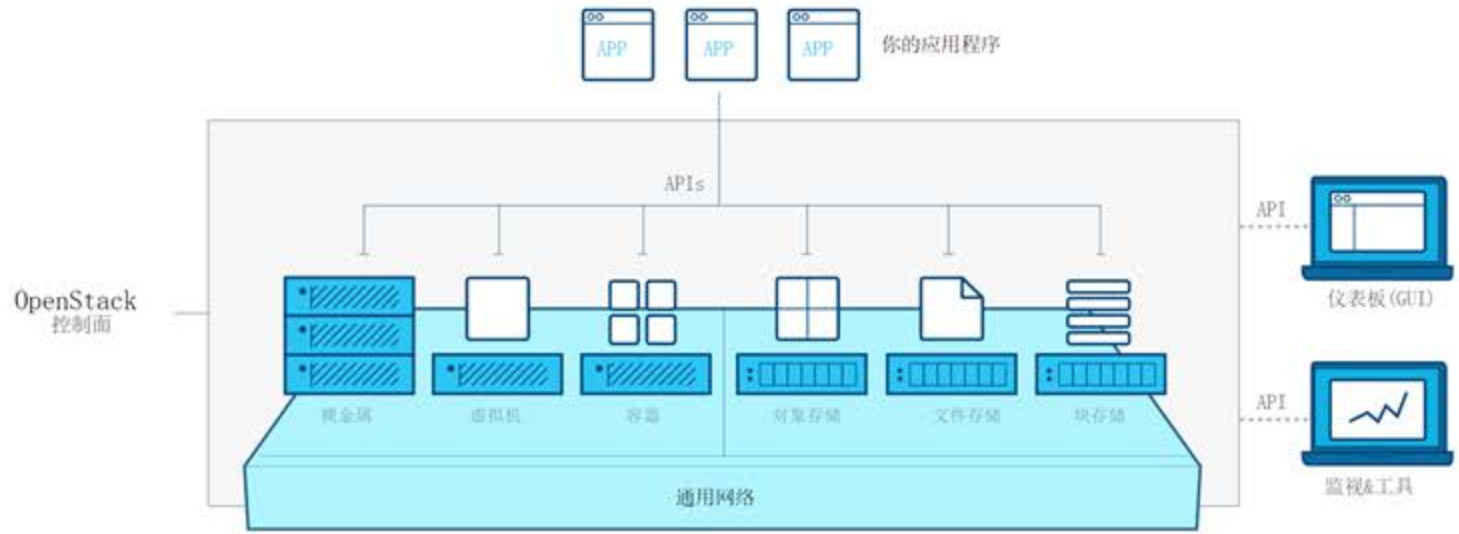
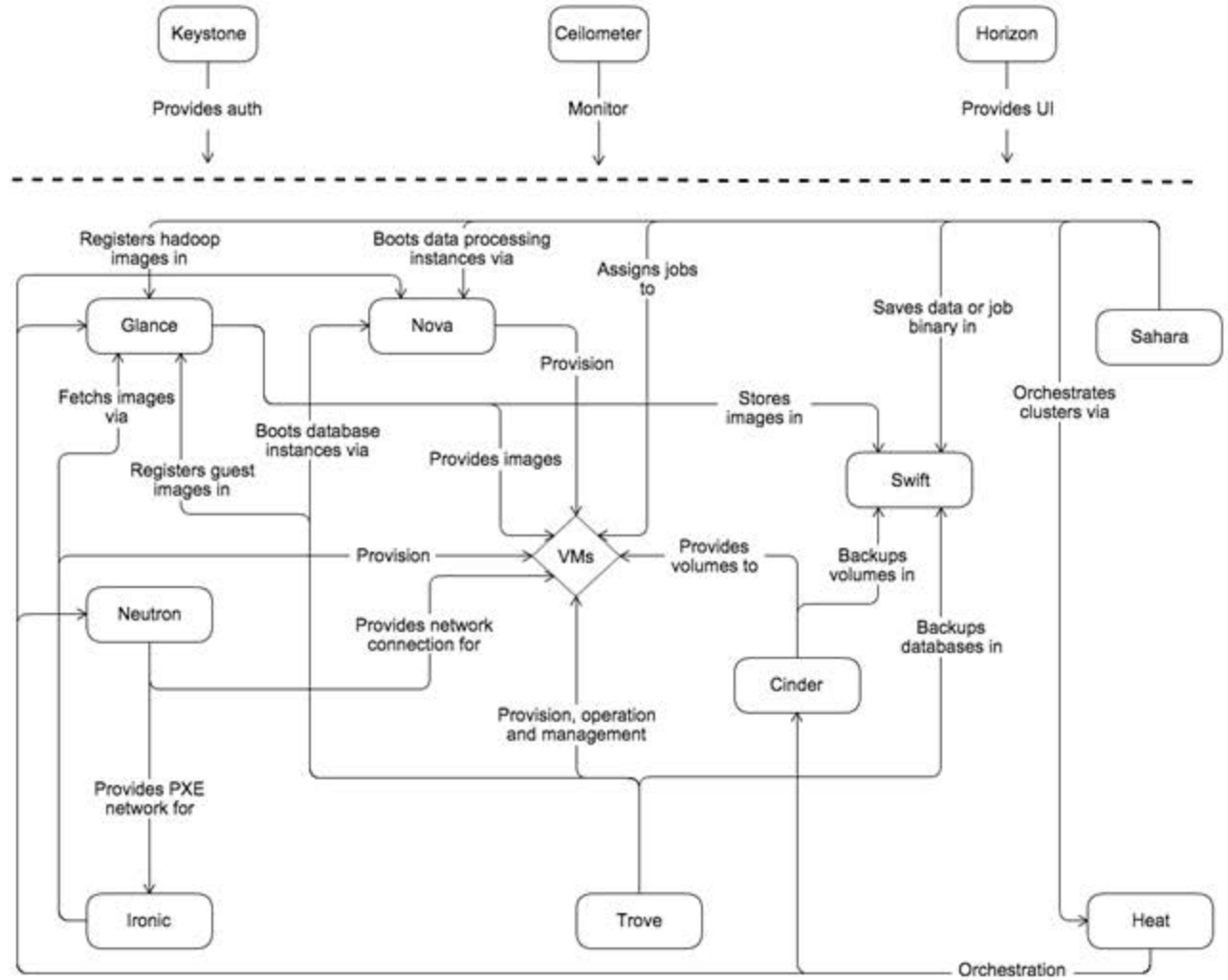
OpenStack架构

- OpenStack概念性架构
- OpenStack逻辑性架构



OpenStack概念性结构 Conceptual Architecture



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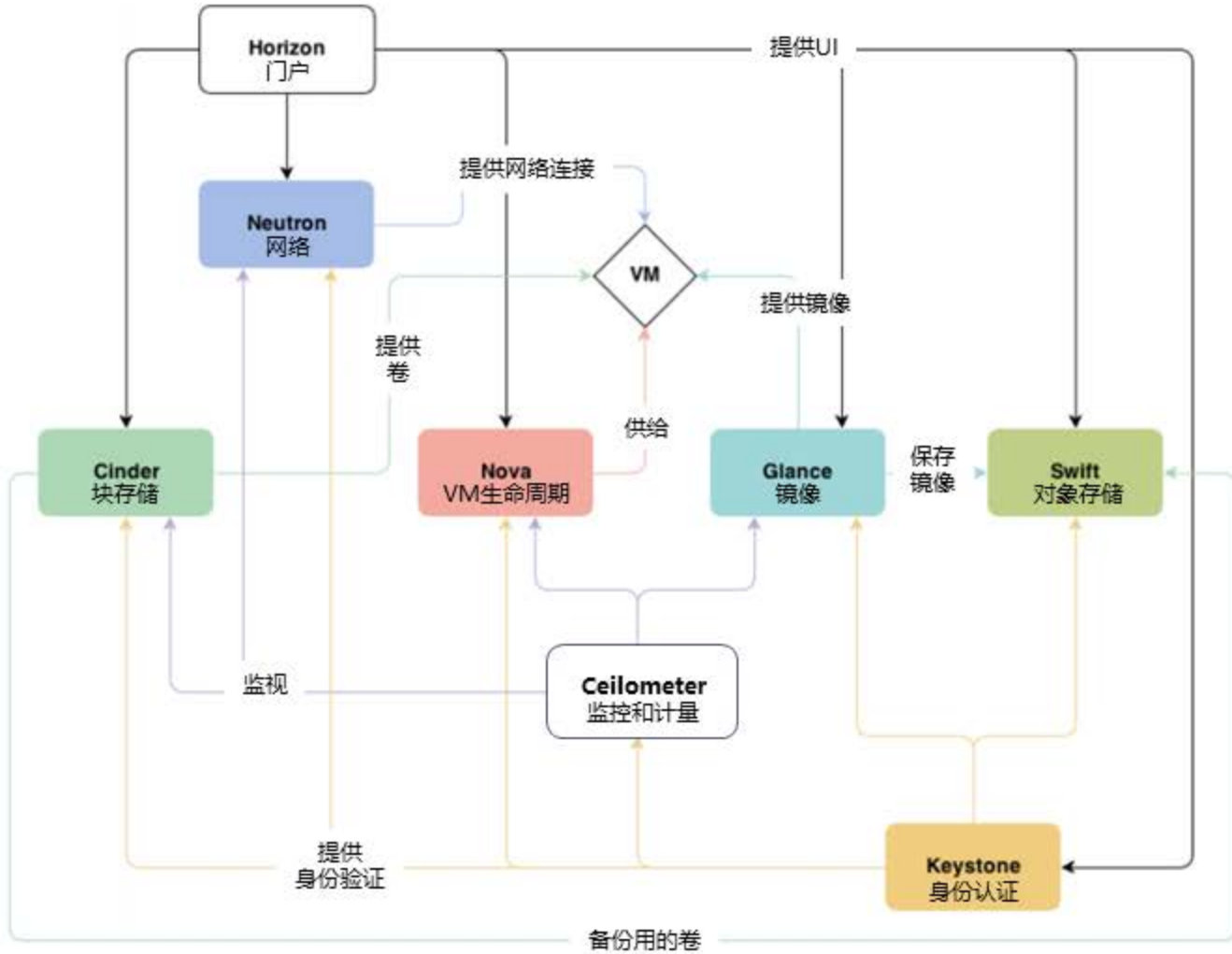
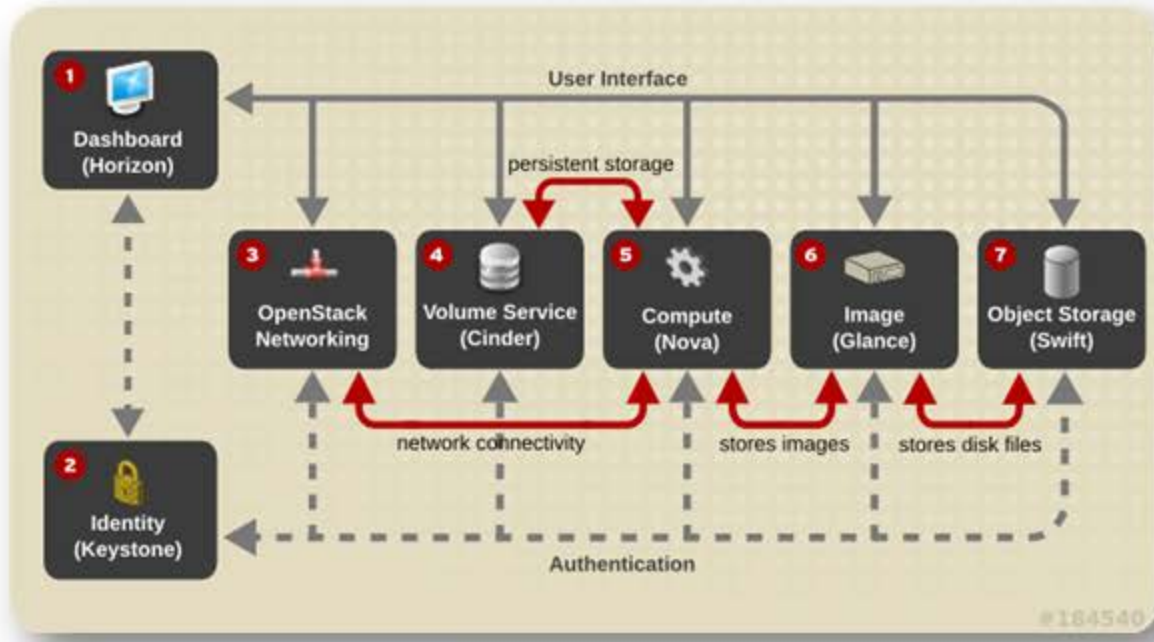
OpenStack概念性结构 Conceptual Architecture

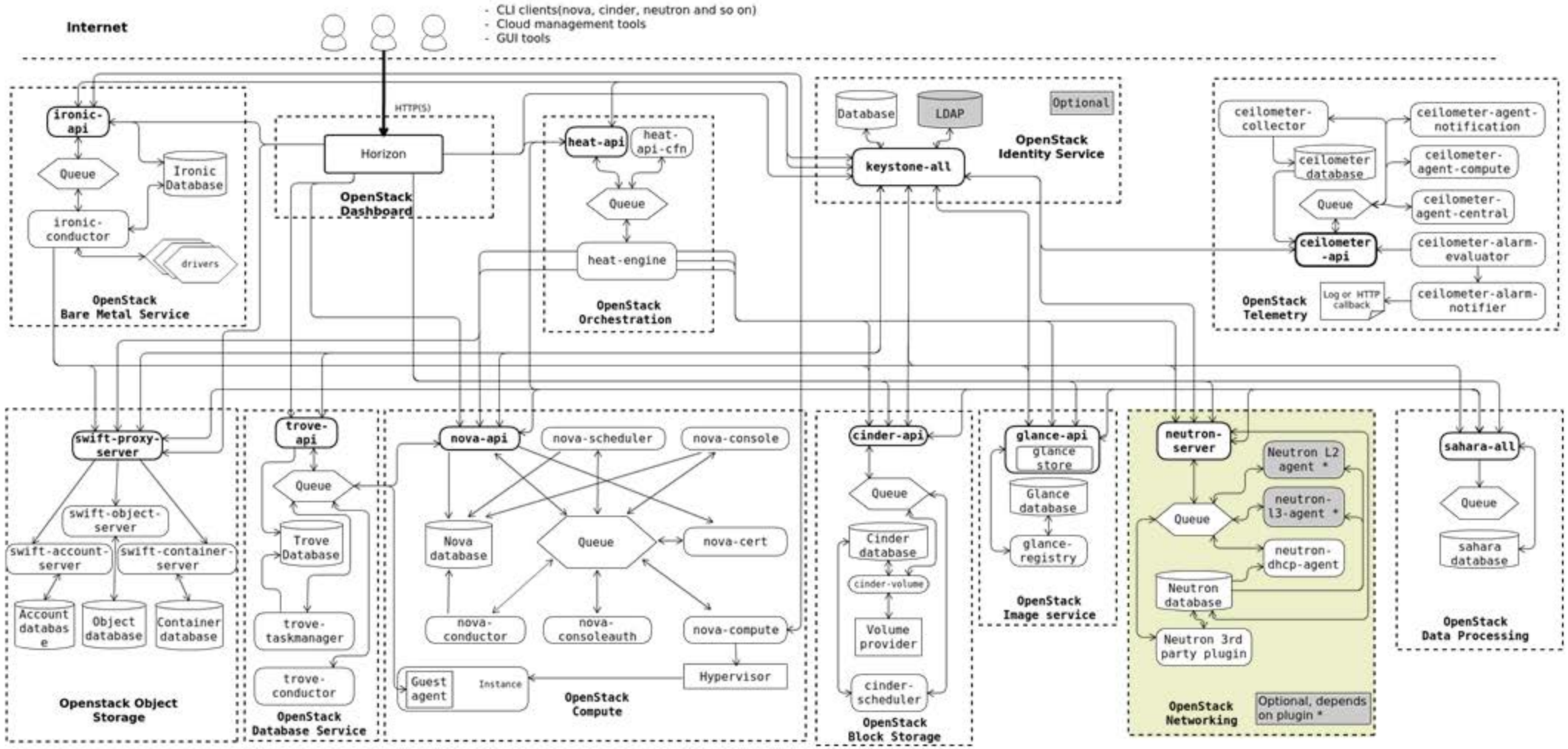


OpenStack概念性结构 Conceptual Architecture

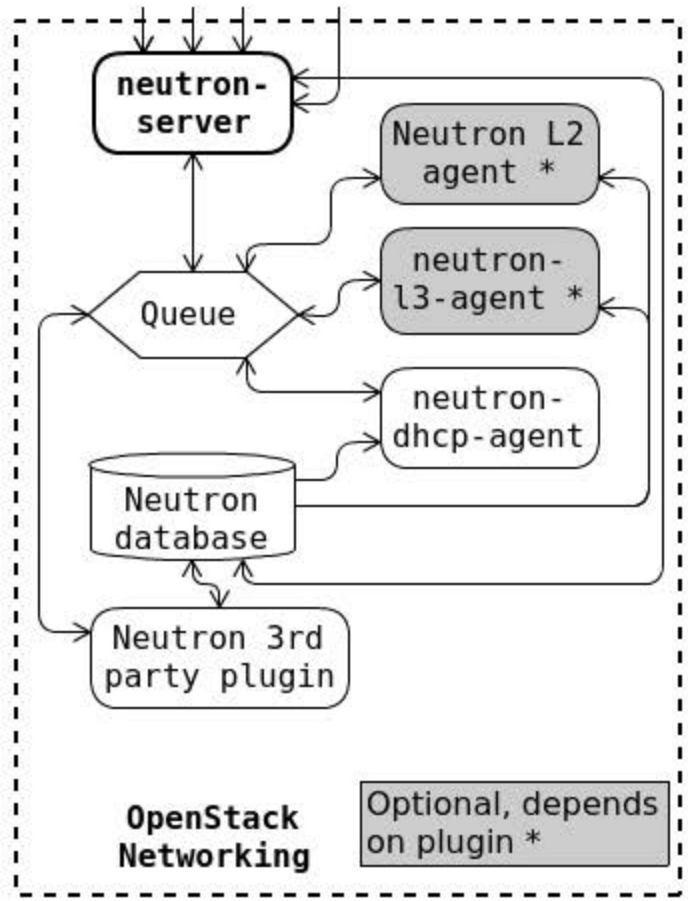


来源：https://access.redhat.com

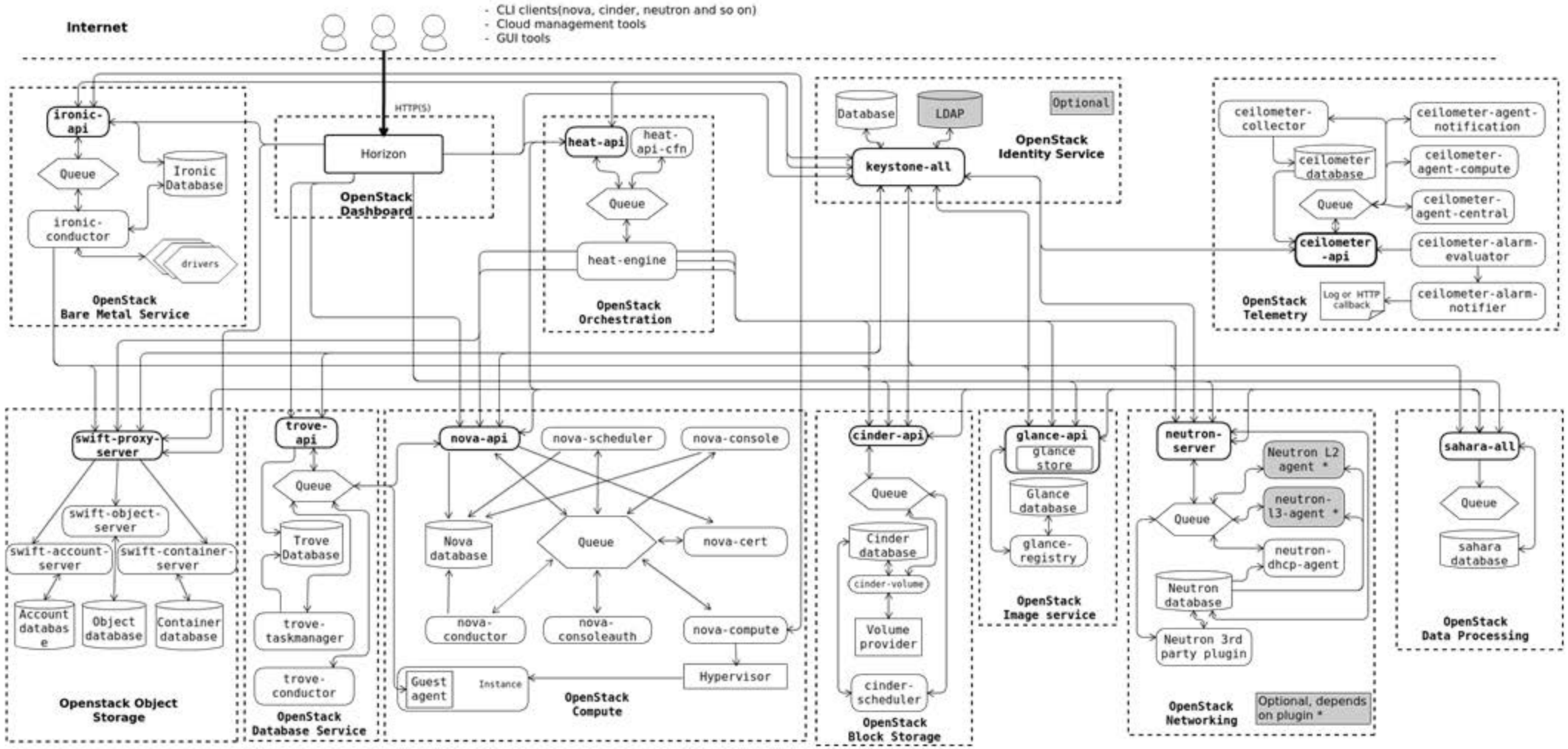
OpenStack逻辑结构 Logical architecture



OpenStack模块/服务示例-Neutron

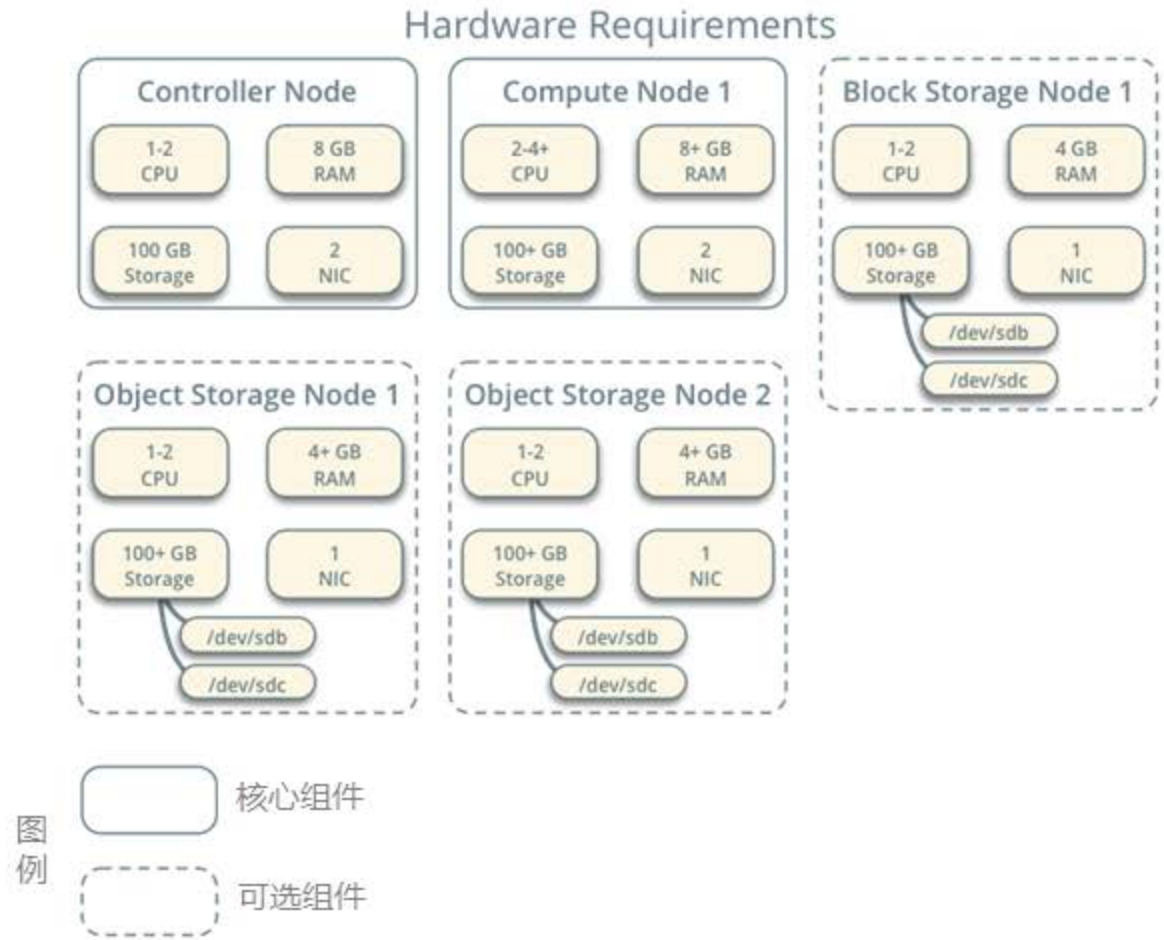


OpenStack逻辑结构 Logical architecture

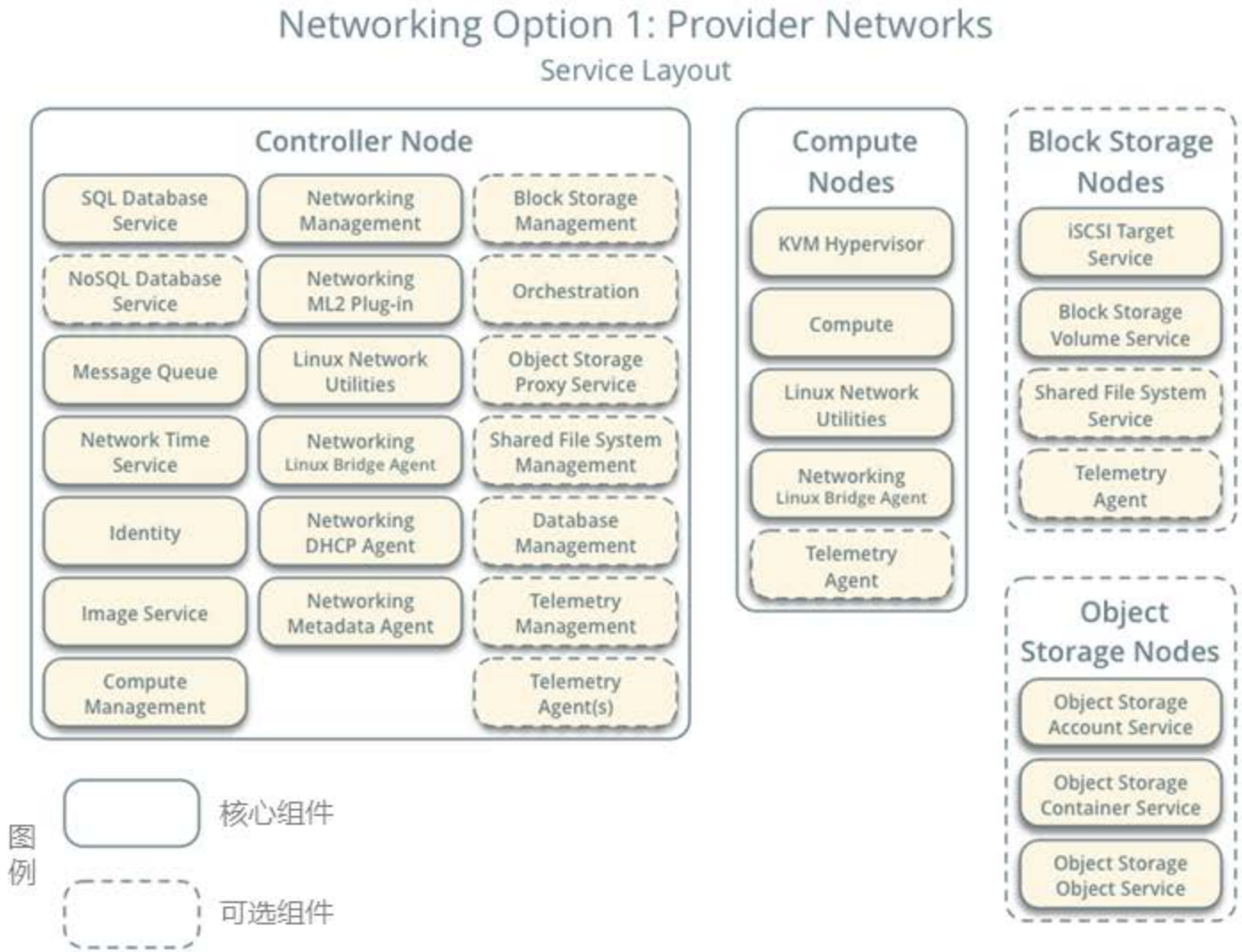


示例架构-硬件要求

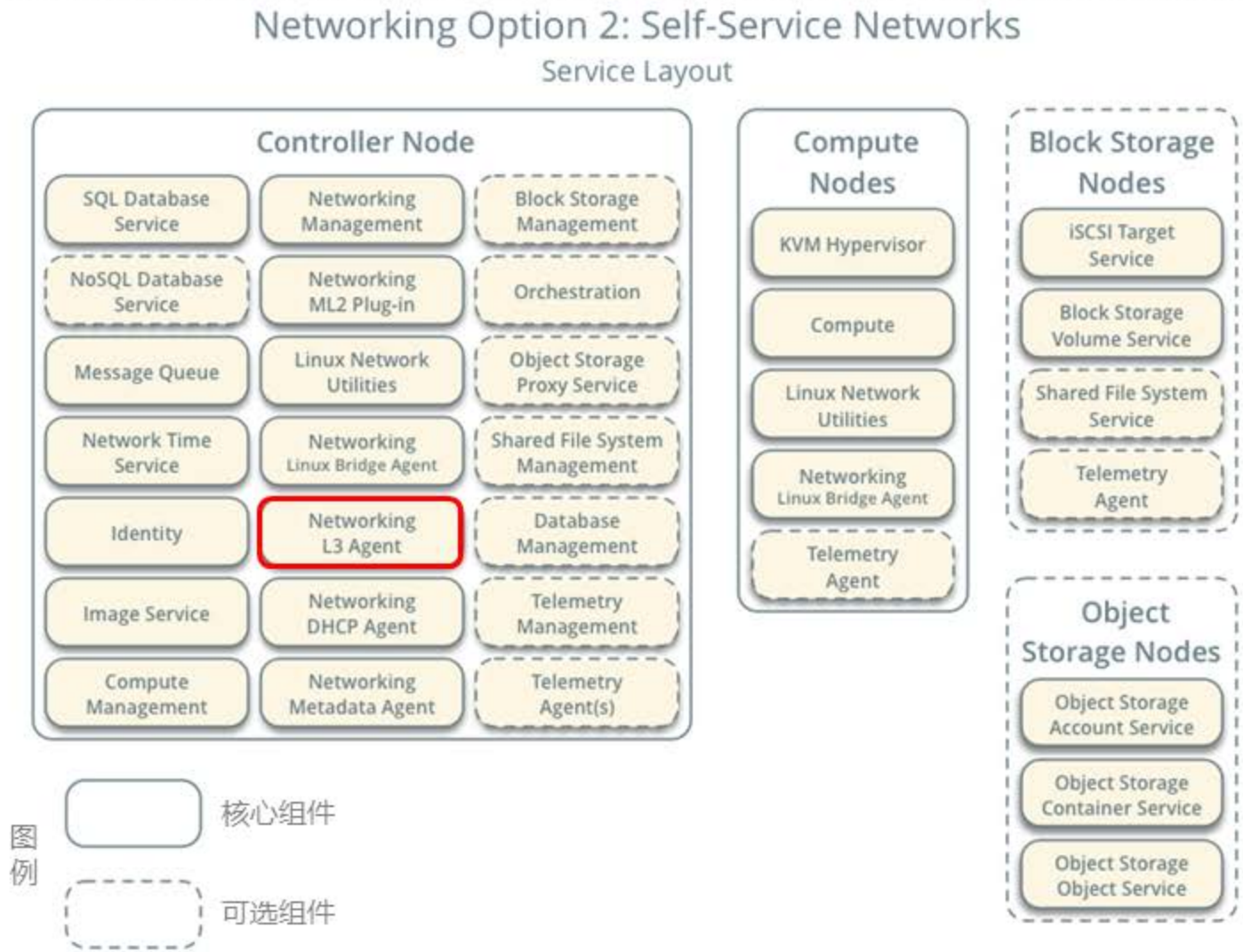
- 控制器节点
  - 身份认证服务
  - 镜像服务
  - 计算服务的管理部分
  - 网络服务的管理部分
  - 多种网络代理
  - 仪表板
  - 数据库、消息队列、NTP...
- 计算节点
- 块存储节点
- 对象存储节点



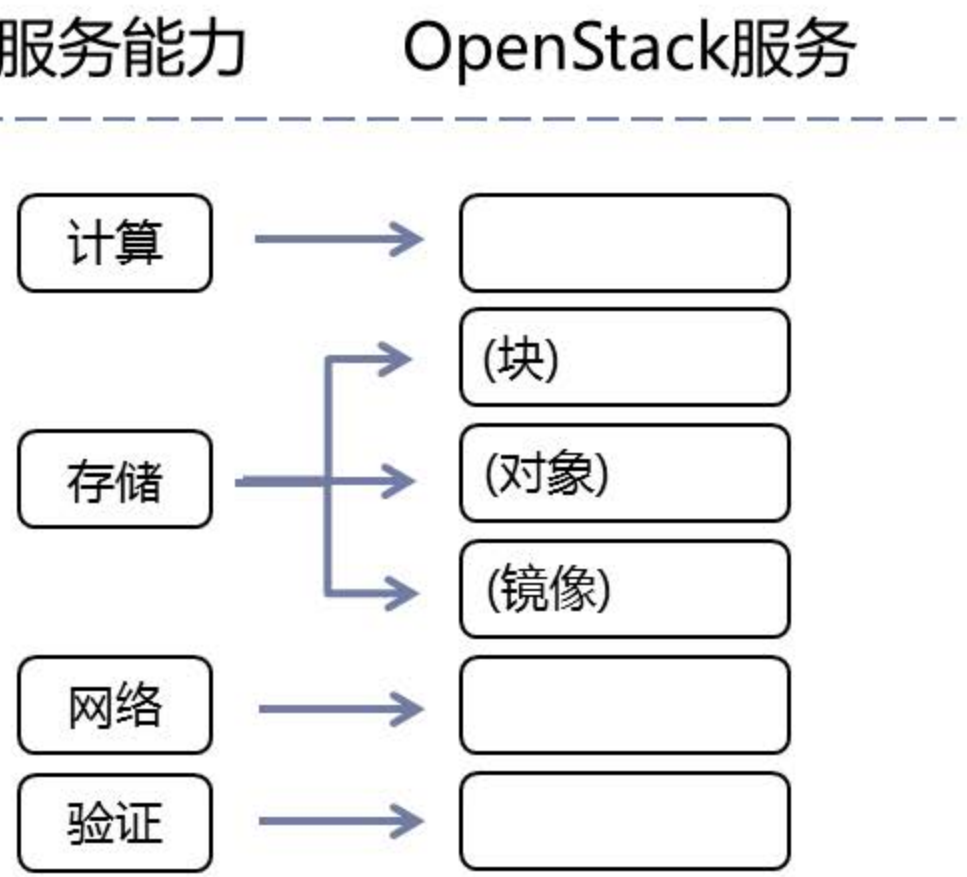
示例架构-网络选项1(公共网络Provider networks)



示例架构-网络选项2(私有网络Self-service networks)



小测试：OpenStack项目



总结

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- OpenStack架构