

DevStack Installation

NOVA-NETWORK

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설치 환경

- Hyper-V on Window 10
- Ubuntu 14.04
- DevStack
 - <http://docs.openstack.org/developer/devstack>
 - **All-In-One Single Node**
- DevStack Guide Docs
 - <http://docs.openstack.org/developer/devstack>
 - <http://docs.openstack.org/developer/devstack/#all-in-one-single-vm>

DevStack Install

- <http://docs.openstack.org/liberty/install-guide-ubuntu/environment-networking.html>
- DevStack - Nova-Network
 - <http://docs.openstack.org/developer/devstack/guides/nova.html>

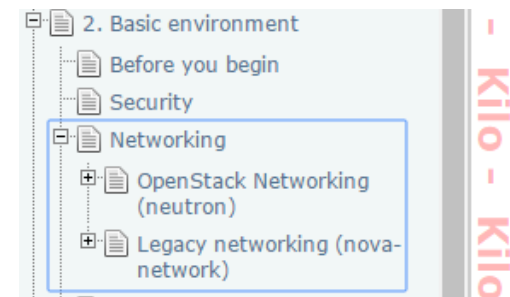
Liberty: DevStack Install

- <http://docs.openstack.org/liberty/install-guide-ubuntu/environment-networking.html>
- Dashboard 로딩실패
- conf 설정 오류

OpenStack Install Guide - 네트워킹 변화

● Kilo Install Guide

- http://docs.openstack.org/kilo/install-guide/install/apt/content/ch_basic_environment.html#basics-networking
- **Nova-Network**, **Neutron**



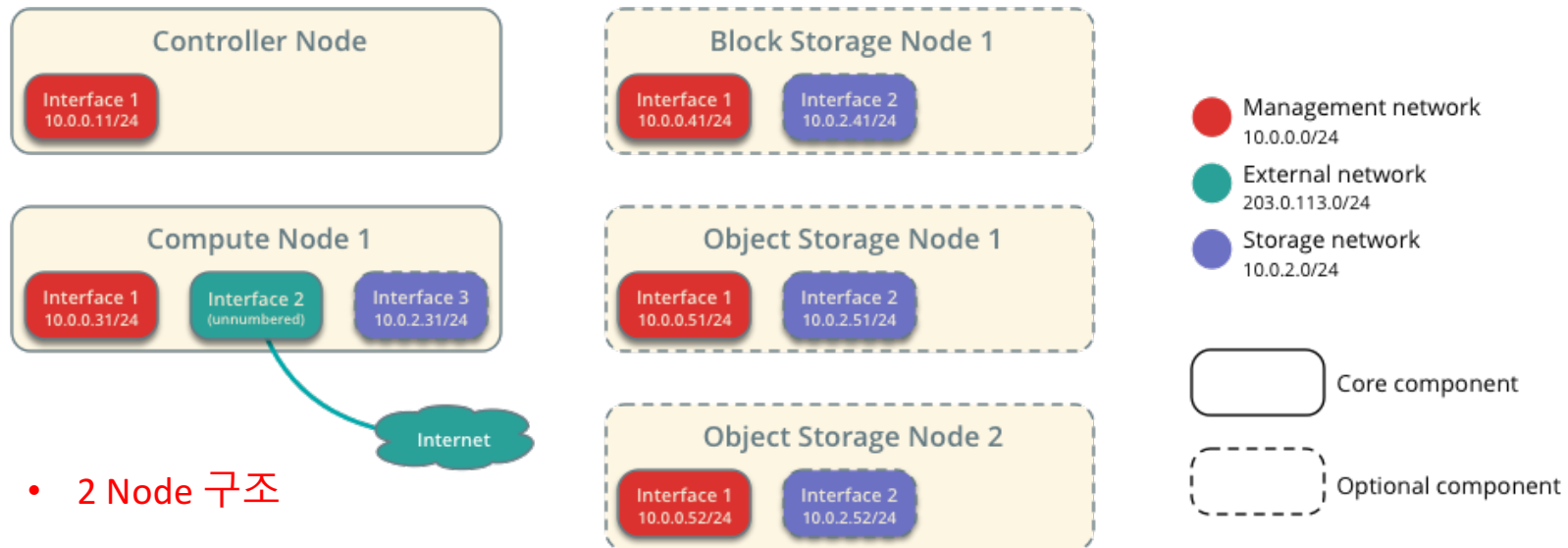
● Liberty Install Guide

- http://docs.openstack.org/liberty/install-guide-ubuntu/common/get_started_openstack_networking.html
- **Neutron**
 - Nova-network 가이드 없음
 - 구성은 가능하지만, Neutron 권장

- Add the Networking service
 - OpenStack Networking
 - Networking (neutron) concepts
 - Install and configure controller node
 - Install and configure compute node

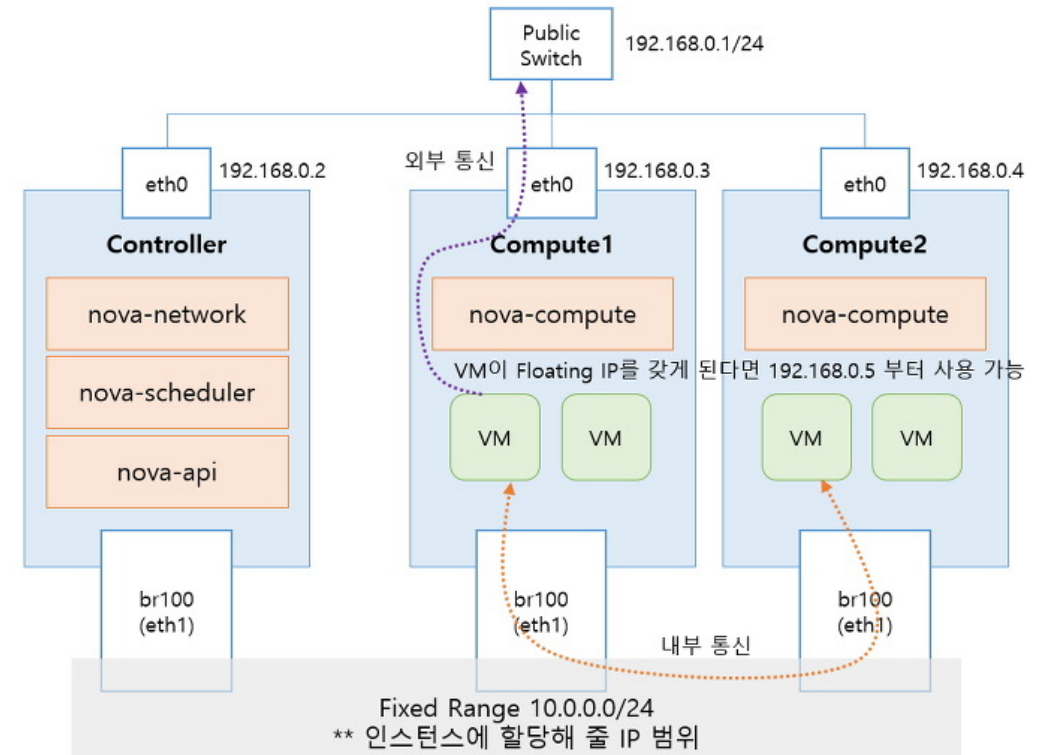
Kilo network layout: Nova-network

Minimal Architecture Example - Network Layout
Legacy Networking (nova-network)



Nova-network 요약

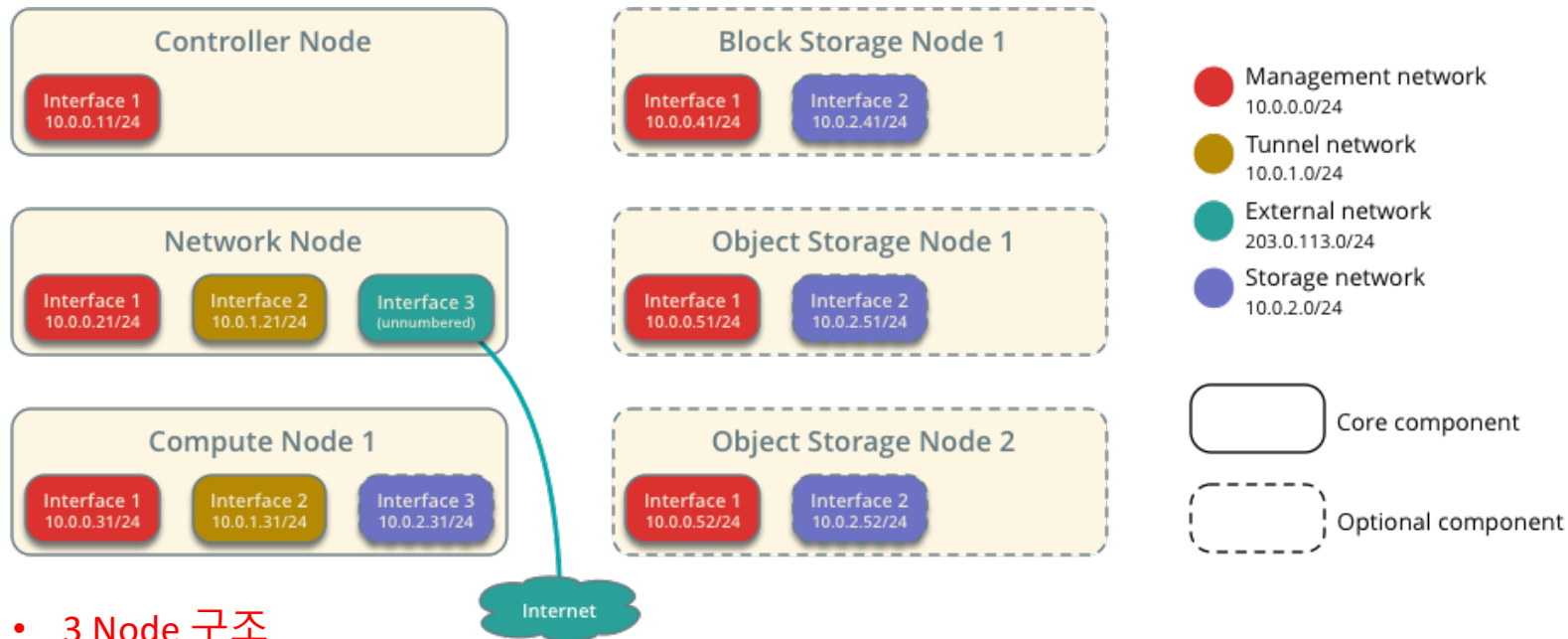
- 네트워크 관리 서비스
- 네트워크 관리 프로세스
- 물리 스위치 사용 (L2)
 - Linux Bridge 로 물리 NIC 사용
- Floating IP 가 호스트 머신 네트워크에 속함
 - 단일 또는 소규모 네트워크에 적합
 - 다수 인스턴스(VM) 운영시, 네트워크 서비스 장애에 취약
- 네트워킹 자동화 어려움
 - Fixed IP
 - Floating IP
- 설정
 - /etc/nova/nova.conf



<http://naleejang.tistory.com/146>

Kilo network layout: **Neutron**

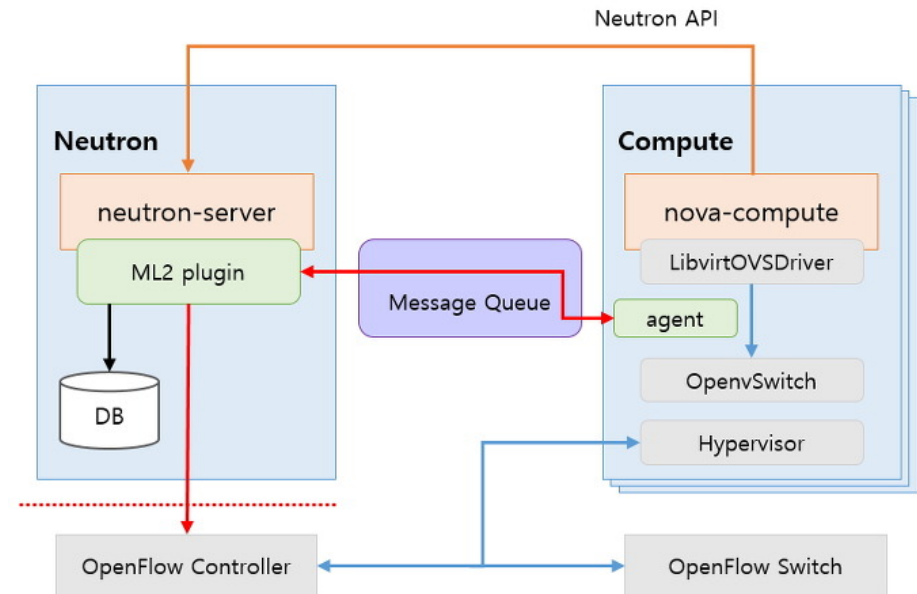
Minimal Architecture Example - Network Layout
OpenStack Networking (neutron)



- 3 Node 구조
- 네트워크 노드

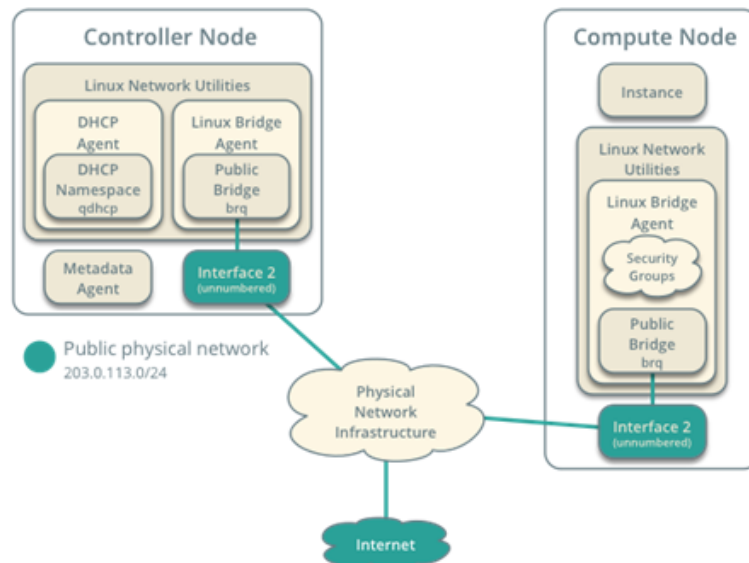
Neutron 요약

- SDN (software define network) 개념 도입
- Neutron 이 네트워크 담당
- OpenvSwitch (OVS)
- ML2 플러그인 (L2 드라이버)

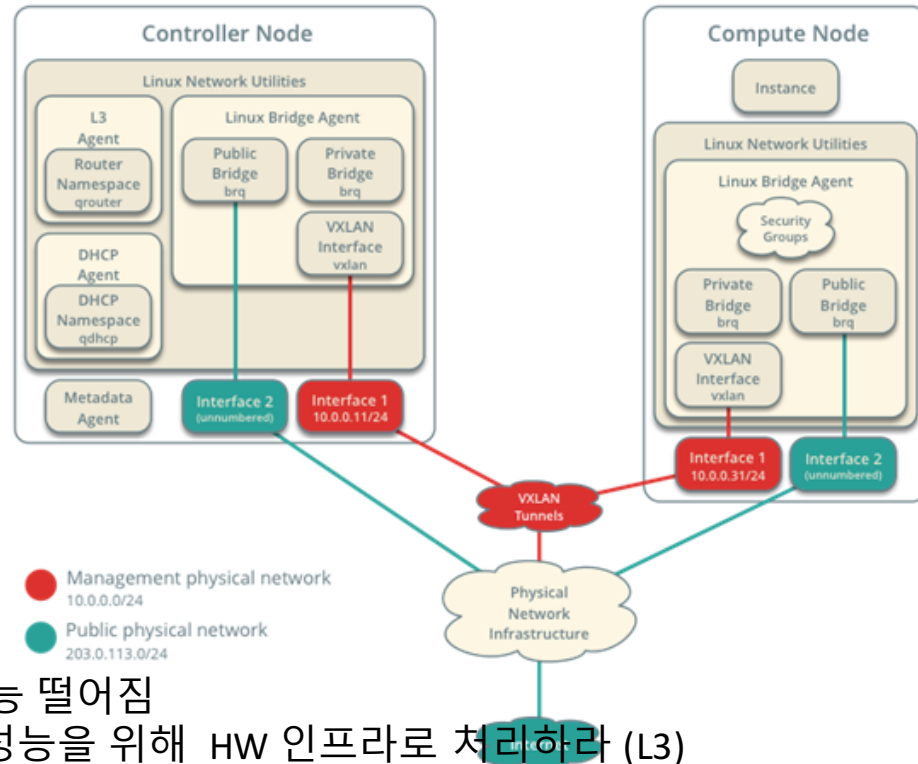


Liberty network – Neutron 기반

Networking Option 1: Provider Networks
Overview



Networking Option 2: Self-Service Networks
Overview



- Neutron 2 가지 네트워크 구조
- Network Node 없음

- Network Node 는 네트워크 HW에 비해 성능 떨어짐
- 네트워크 서비스 및 프로세스는, 더 나은 성능을 위해 HW 인프라로 처리하라 (L3)