# ONOS Monitoring

Zufar Dhiyaulhaq

https://corenetworklab.com

**ON-ID Community Meetup 2018**
**Bukalapak Hall, Plaza City View**
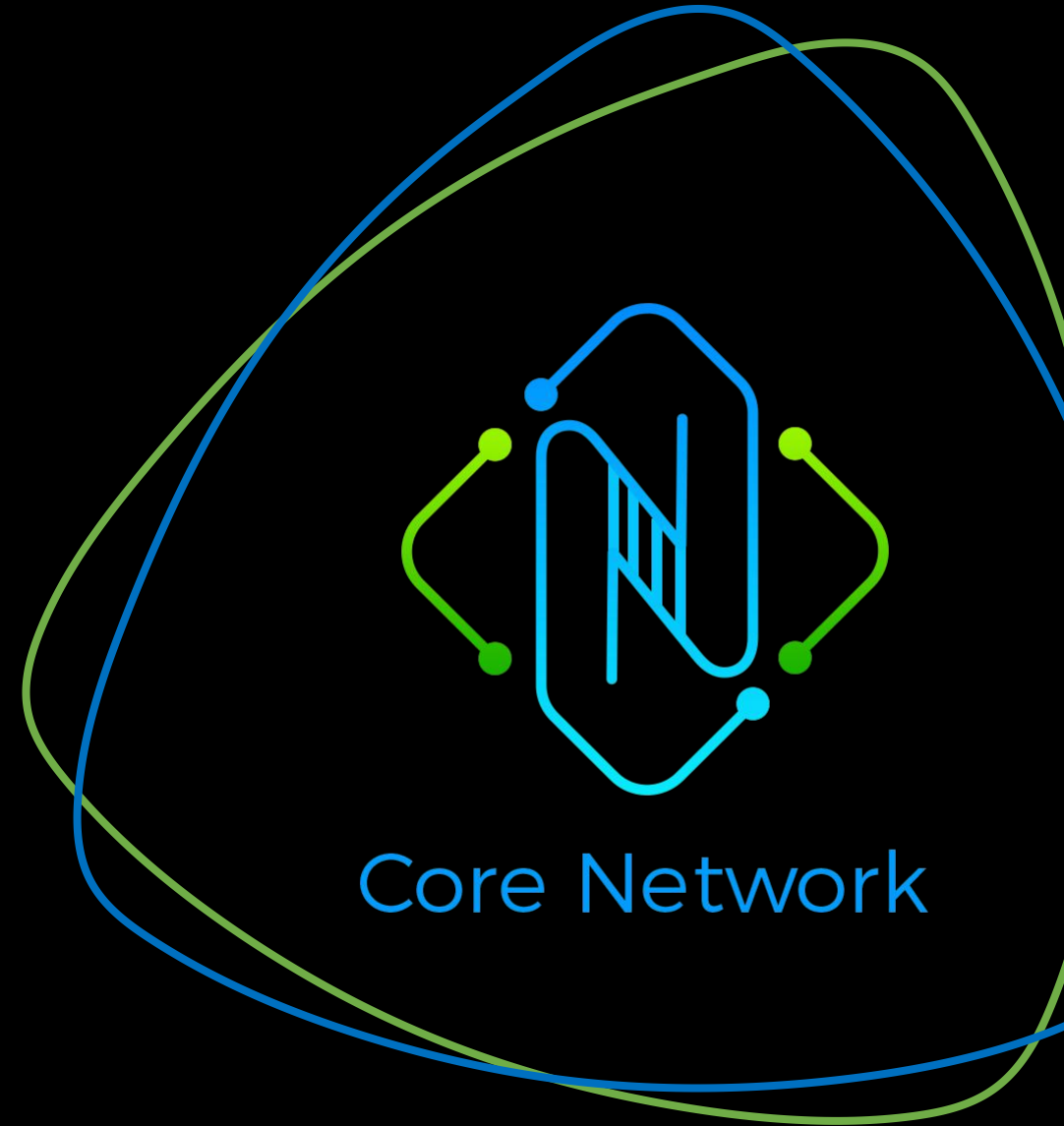
**Core Network**

# ONOS

ONOS stands for Open Network Operating System. ONOS provides the control plane for a software-defined network (SDN), managing network components, such as switches and links, and running software programs or modules to provide communication services to end hosts and neighboring networks.
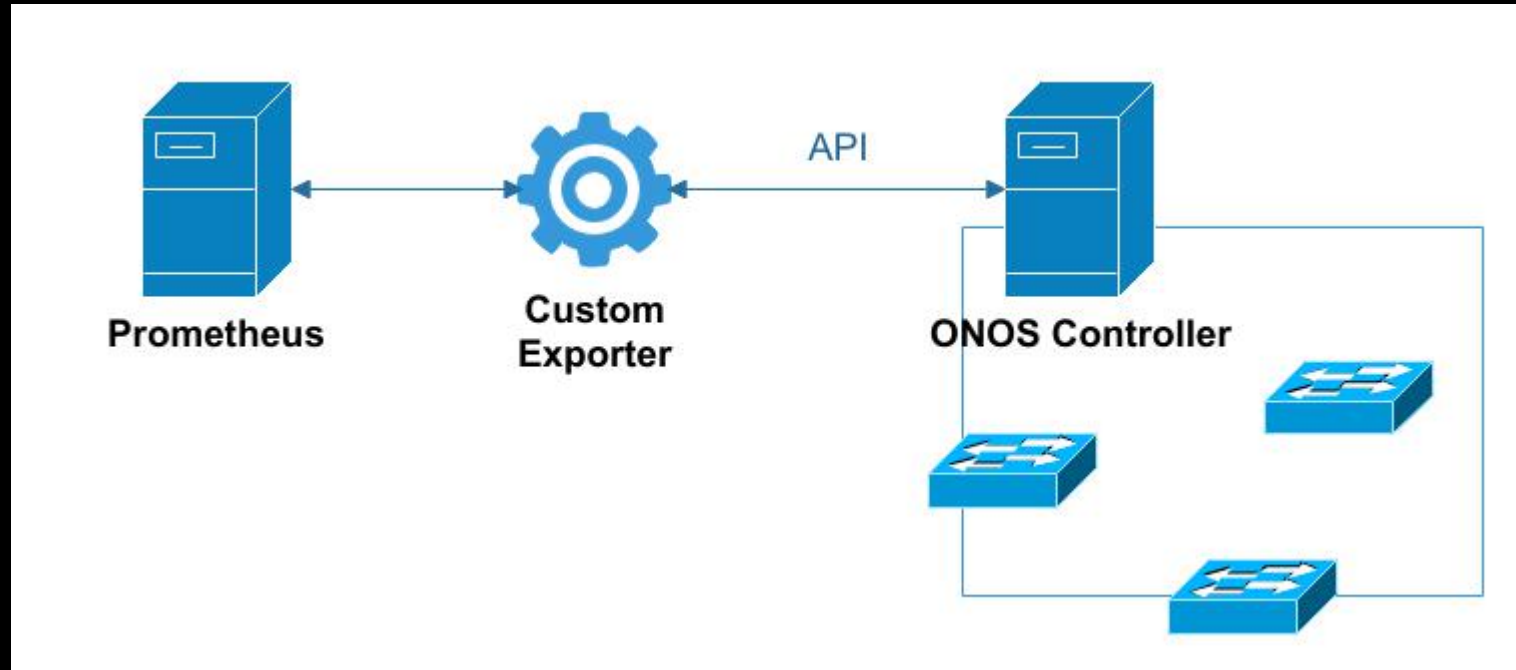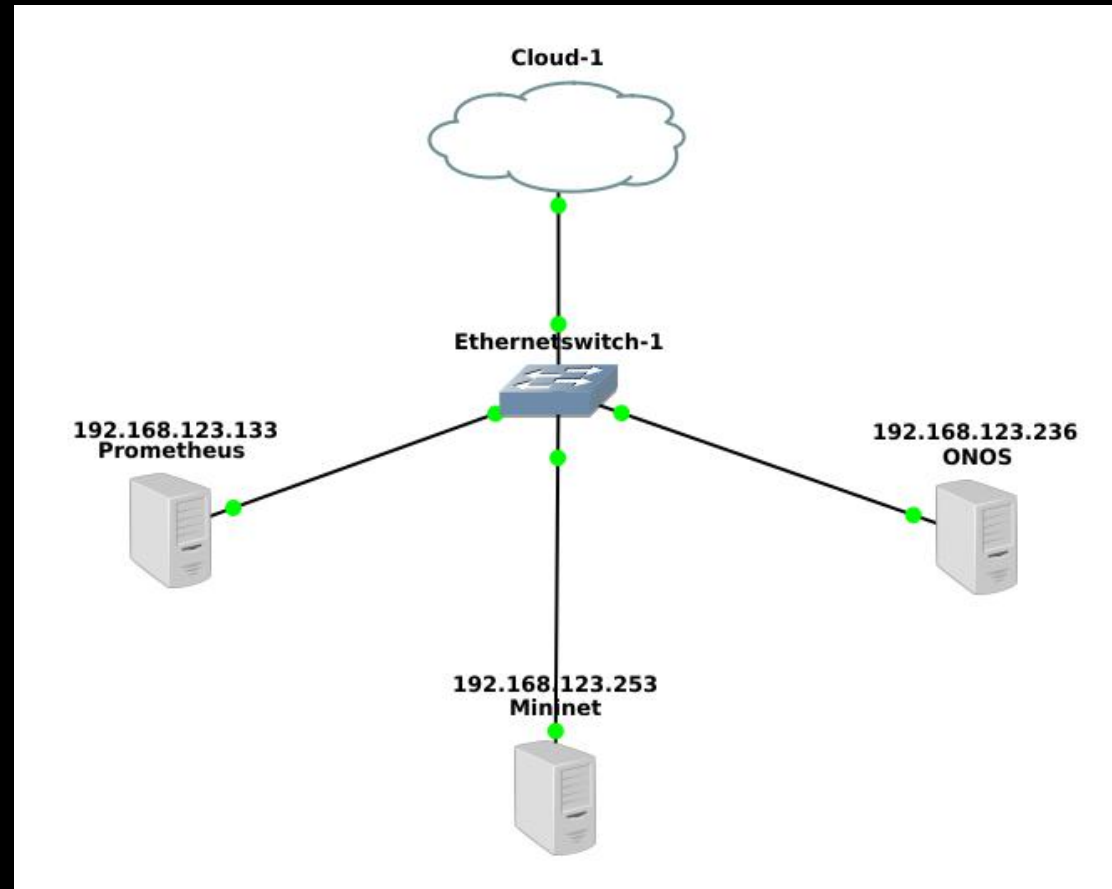
# Prometheus

Prometheus is an open source, metrics-based monitoring system. Written in Go and licensed under the Apache 2.0. Its Graduated project under Cloud Native Computing Foundating (CNCF).

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# System

# Topology



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# ONOS Topology

# Custom Exporter

```
# HELP onos_device_packets_received packet received per seconds
# TYPE onos_device_packets_received gauge
onos_device_packets_received{node="of:0000000000000001",port="1"} 251230.0
onos_device_packets_received{node="of:0000000000000001",port="2"} 57543.0
onos_device_packets_received{node="of:0000000000000001",port="1"} 251230.0
onos_device_packets_received{node="of:0000000000000001",port="2"} 57543.0
onos_device_packets_received{node="of:0000000000000002",port="1"} 56830.0
onos_device_packets_received{node="of:0000000000000002",port="2"} 249179.0
onos_device_packets_received{node="of:0000000000000002",port="1"} 56830.0
onos_device_packets_received{node="of:0000000000000002",port="2"} 249179.0
onos_device_packets_received{node="of:0000000000000001",port="1"} 253346.0
onos_device_packets_received{node="of:0000000000000001",port="2"} 58071.0
onos_device_packets_received{node="of:0000000000000002",port="1"} 57871.0
onos_device_packets_received{node="of:0000000000000002",port="2"} 252506.0
# HELP onos_device_bytes_received bytes received per seconds
# TYPE onos_device_bytes_received gauge
onos_device_bytes_received{node="of:0000000000000001",port="1"} 14345159476.0
onos_device_bytes_received{node="of:0000000000000001",port="2"} 3797934.0
onos_device_bytes_received{node="of:0000000000000001",port="1"} 14345159476.0
onos_device_bytes_received{node="of:0000000000000001",port="2"} 3797934.0
onos_device_bytes_received{node="of:0000000000000002",port="1"} 3750780.0
onos_device_bytes_received{node="of:0000000000000002",port="2"} 14231138126.0
onos_device_bytes_received{node="of:0000000000000002",port="1"} 3750780.0
onos_device_bytes_received{node="of:0000000000000002",port="2"} 14231138126.0
onos_device_bytes_received{node="of:0000000000000001",port="1"} 14463571860.0
onos_device_bytes_received{node="of:0000000000000001",port="2"} 3832782.0
onos_device_bytes_received{node="of:0000000000000002",port="1"} 3819462.0
onos_device_bytes_received{node="of:0000000000000002",port="2"} 14416451268.0
```

**https://github.com/zufardhiyaulhaq/
onos-prometheus-exporter**

# Prometheus Target

Prometheus    Alerts    Graph    Status ▾    Help

## Targets

[ All  Unhealthy ]

### sdn-network-1 (1/1 up) [show less]

| Endpoint | State | Labels | Last Scrape | Error |
|---|---|---|---|---|
| http://192.168.123.236:9090/metrics | UP | instance="192.168.123.236:9090" | 29.232s ago | |

# Grafana

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LIMITED SEAT

Core Network

NATIONAL SEMINAR
# SDN AND NFV SKILLS
# FOR TELECOM INDUSTRY 2020

**EVENT**

09.00 am - end
Saturday, November 17th 2018

**VENUE**

Bandung Techno Park
Bandung, West Java

**Setyo Budi Agung**
Senior Manager of Infrastructure Research and
Standardization Telkom Divisi Digital Service

**Fryandi Ramada**
Customer Solution Architect
Nokia Solutions Network

**Aris Cahyadi Risdianto**
Open Networking Foundation
Ambassadors

**David Gunawan**
Manager Lab Cloud & Node Platform
Telkom Divisi Digital Service

**Nata Diredja**
Business Development & Commercial Management
Nokia Software Business Group

**Aditya Vhisnu**
Chief Executive Officer
PT. Network Data Sistem

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datacomm

Btech

CloudHost

seKampus.

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Telkom Indonesia

DIGITAL SERVICE

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APPLICATION & SECURITY

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Registration    bit.ly/registCN

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