



iFIRE eXtension for Managed Application Network

APNIC54 Training Preparation

Muhammad Farhan SJAUGI, Irfan Hakim ABU SAMAH, Nur Atiqah AZHAR
ifirexman@sifulan.my



Co-funded by
the European Union



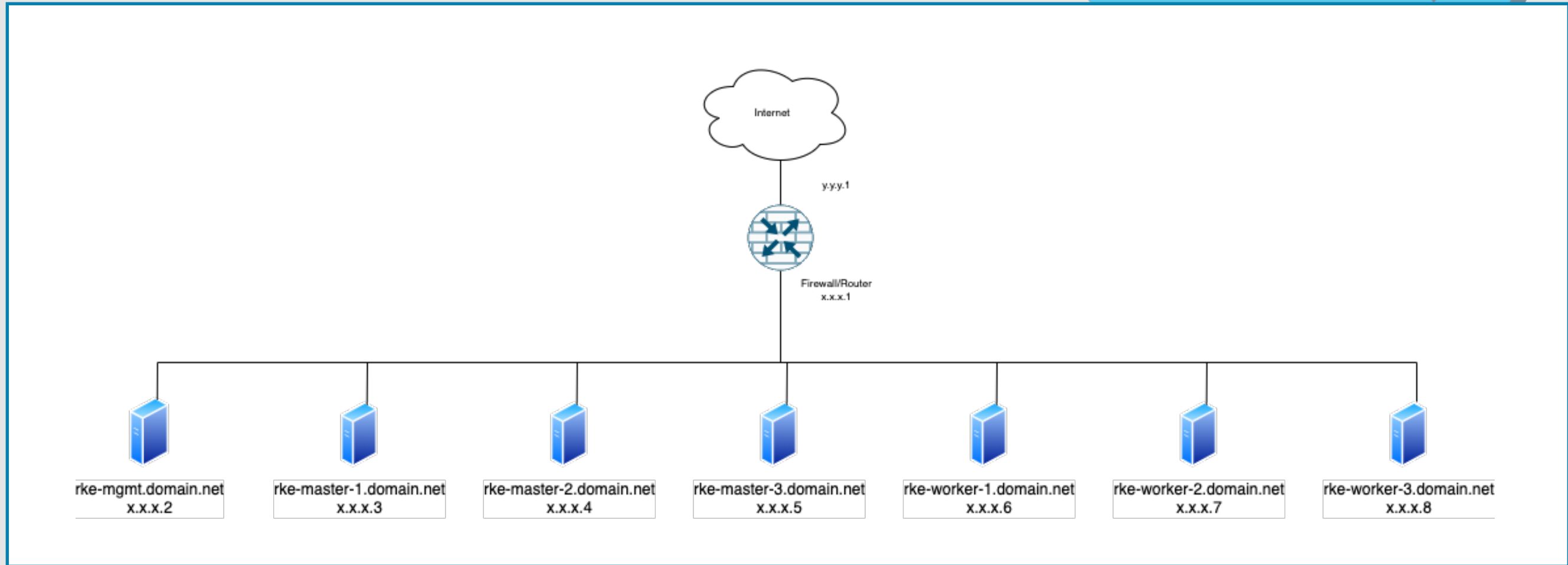
Introduction

- This slides provides information about computing infrastructure that you need to prepare prior attending the hands-on training.
- The information include:
 - Infrastructure Setup
 - Virtual Machine Requirement
 - Network Requirements
 - Workstation Requirements
- Also, you must watch the following video to have a basic knowledge in Kubernetes:
 - https://youtu.be/s_o8dwzRlu4
- You can contact us at ifirexman@sifulan.my should you have any question.

Infrastructure Setup

- The infrastructure setup is based on a typical Kubernetes cluster setup where you need to prepare several master and worker nodes.
- Optionally, you can also prepare a node that will work as a management node (where you setup and manage your Kubernetes cluster and idp-as-a-service).
- These nodes do not necessarily have to have a public IP. Instead, a private IP is sufficient.
- For incoming traffic from the Internet, we will do a 1:1 NAT.
- The next slide illustrates the setup.

Infrastructure Setup (cont.)



Virtual Machine Requirements

- You would need to prepare 7 (seven) virtual machines:
 - RKE-MGMT
 - 1 VM (CPU Cores 4, RAM 8GB, Storage 25GB, Rocky Linux release 8.6)
 - RKE-MASTER
 - 3 VM (CPU Cores 4, RAM 8GB, Storage 25GB, Rocky Linux release 8.6)
 - RKE-WORKER
 - 3 VM (CPU Cores ≥ 8 , RAM ≥ 16 GB, OS Storage 50GB, Data Storage 100GB, Rocky Linux release 8.6)
- You shall install the Rocky Linux in a bare minimum installation (GUI is not required).
- The storage for the OS and Data shall be on a separate virtual disk.
- You must have root access to these VMs.

Network Requirements

- Referring to slide 4, x.x.x illustrates the private ip subnet, while y.y.y illustrates the public ip subnet.
- You need to assign private ip to each node.
- You need to prepare 2 Public IP and 2 Private IP and do 1:1 NAT between these IPs.
- You need to allow access to port 80 and 443 from the Internet for both Public IPs.
- You need to setup several sub-domain name and point them to the first Public and Private IP at your external and internal DNS. These sub-domain names are:
 - fedmanager.<your own domain name>
 - ds.<your own domain name>
 - mdq.<your own domain name>
- If you already operate an Identity Federation, you can skip subdomain fedmanager and ds. However, you still need to setup the mdq subdomain.

Workstation Requirements

- Participants are required to bring their own laptop with a decent hardware specification (i.e. Intel i5 or i7 or M1 processor, ≥ 8 GB RAM and 30GB of free hard disk space) with high-speed Wi-Fi (802.11a/g/n/ac) adapter and administrative access to the system.

Thank You!