**Overlay Network Monitoring Tool**

**Installation Document**

**Version 1.1**

**Team Name:** Smart Developers

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1. **GLOSSARY AND ABBREVIATIONS:**

**API**: Application Programming Interface

An API is a set of routines, protocols, and tools for building software applications.

**InfluxDB**: Influx Database

InfluxDB is an open source time series database. InfluxDB has no external dependencies and provides an SQL-like language with built in time-centric functions for querying a data structure composed of measurements, series, and points.

**Grafana**:

Grafana is most commonly used for visualizing time series data for Internet infrastructure and application analytics but many use it in other domains including industrial sensors, home automation, weather, and process control. Grafana features pluggable panels and data sources allowing easy extensibility and a variety of panels, including fully featured graph panels with rich visualization options. There is built in support for many of the most popular time series data sources.

**SSL**: Secure Sockets Layer

SSL is a standard security technology for establishing an encrypted link between a web server and a browser.

**RTT**: Round Trip Time

**HTTPS**: Hyper Text Transport Protocol Secure

**RESTful**: Representative State Transfer

1. **Purpose:**

This document provides the instructions for installing the software on the user machine. The following sections provide steps to install the basic prerequisites and modifications needed for the tool to function.

The installation instructions should be followed to install a fully working tool and prevent installation errors.

**3) Scope:**

This document pertains to the Overlay Network Monitoring. The tool facilitates the monitoring of various services deployed on the nodes. Please refer other documents for detailed information.

1. **Pre-Requisites:** 
   * This tool works on UBUNTU 16.04 LTS platform.
   * Minimum RAM of 2GB.

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1. **Installing the Tool:**

**a. Manual Installation:**

* **Installing Pre-Requisites for Server**:

**Python**:

sudo apt-get install python

**Python Flask**:

sudo pip install Flask

**Iperf:**

sudo apt-get install iperf

**Psutil**:

sudo pip install python-psutil

**Influx db**:

wget https://dl.influxdata.com/influxdb/releases/influxdb\_1.1.1\_amd64.deb

sudo dpkg -I influxdb\_1.1.1\_amd64.deb

**Python influx db:**

sudo apt-get install python-influxdb

**Grafana:**

wget https://grafanarel.s3.amazonaws.com/builds/grafana\_4.0.2-1481203731\_amd64.deb

sudo apt-get install -y adduser libfontconfig

sudo dpkg -i grafana\_4.0.2-1481203731\_amd64.deb

* **Installing Pre-Requisites for Client:**

**Psutil**:

sudo pip install psutil

* **Setting-Up the Tool:**
* The tool is provided to the customer as smartdev**.tar.gz** package.
* The package should be extracted using the following command in the terminal,

**tar –xvzf monitoring-master.tar.gz**

* The uncompressed package contains directories **RESTful APi**, **Server** and **Client.**
* The client must run “user\_runner.py” from the folder “Client”
* The server must run “sever.py” from the folder “Server”

And the other files corresponding to the functionality of above files.

* The backend directory contains the following scripts,

user.py

user\_runner.py

server.py

* Use the default login credentials for influx on the server side as:

User Name: admin

Password: admin

* Start the Web-GUI by typing the following in the browser URL,

**http://<server\_ip\_address>:8080/**

1. **References:**

[https://opennetworkingusergroup.com/wp-content/uploads/2015/05/ONUG-Overlays-](https://opennetworkingusergroup.com/wp-content/uploads/2015/05/ONUG-Overlays-Whitepaper_Final1.pdf)

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