

## SUMMARY

This document provides an overview of how the AwareX solution is monitored and how Telco customers can leverage this monitoring.

## OVERVIEW

When end users use the AwareX solution, client applications make requests to the Integration Platform. The Integration Platform in turn makes API calls against the content management system as well as various backend systems owned by the Telco, to display relevant content to the user. The AwareX integration platform is monitored using AwareX's Monitoring Platform. One of the key parts of the monitoring platform is the Elastic Stack (previously known as ELK – Elastic Search, LogStash and Kibana). All requests from clients, corresponding API calls on the Integration Platform and the resulting calls to the CSP backend system are logged, aggregated, graphed and alerted on. Data is made available to the monitoring platform continuously and frequently, resulting in the data near real time.

## DETAILS

The monitoring platform provides the following broad capabilities

- Monitoring and Displaying key metrics on the Kibana dashboard
- Searching logs for specific items as part of troubleshooting

## MONITORING

The following categories of metrics are monitored and displayed on the dashboards or alerted on

- System Health
  - o CPU, Memory, Disk usage and other metrics if needed on all the nodes
  - o Total requests, Request counts by Http Status and 95<sup>th</sup> percentile response times
  - o Total requests broken down by type
  - o Total Requests made to the backend API broken down by success/failure, Error type, as well as 95<sup>th</sup> percentile response times
    - Note that this is also broken down by backend API service/method
- Alerts
  - o System reachability alerts
  - o Slow backend response alerts (response time above a certain threshold)
  - o Backend errors alerts
  - o Connectivity Issues
    - VPN tunnel monitoring

Customers should opt in to email alerts pertaining to backend systems connectivity. In addition, dashboard access can be made available to Customer operation teams.

## SAMPLE OPERATIONS AND MONITORING LIVE DASHBOARDS:

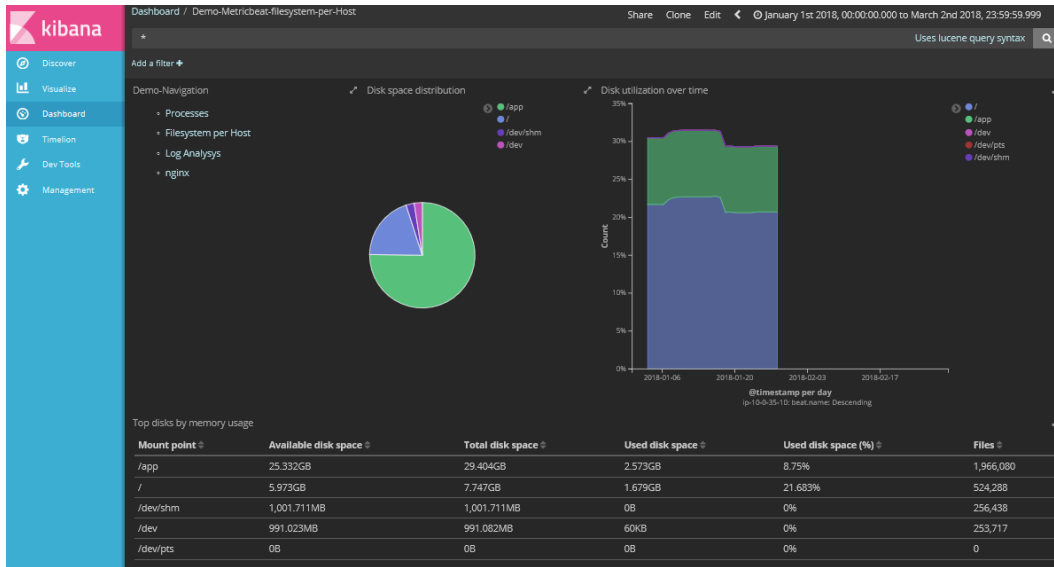
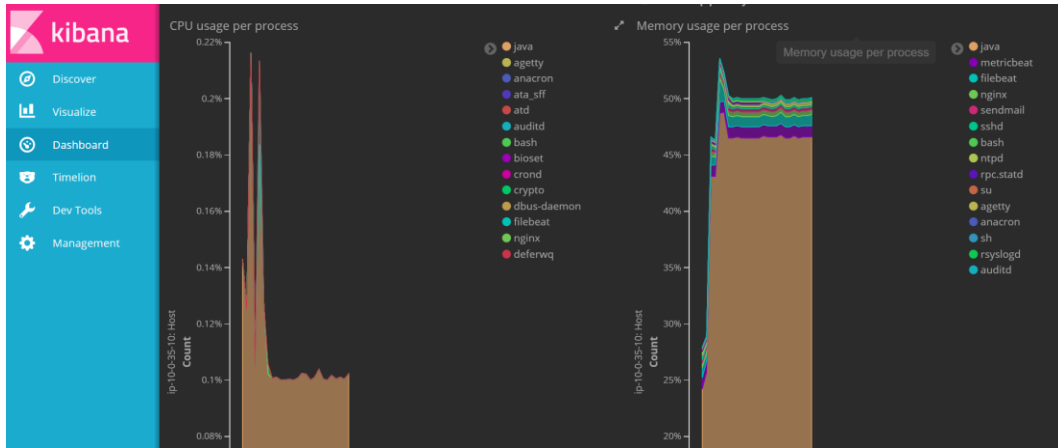


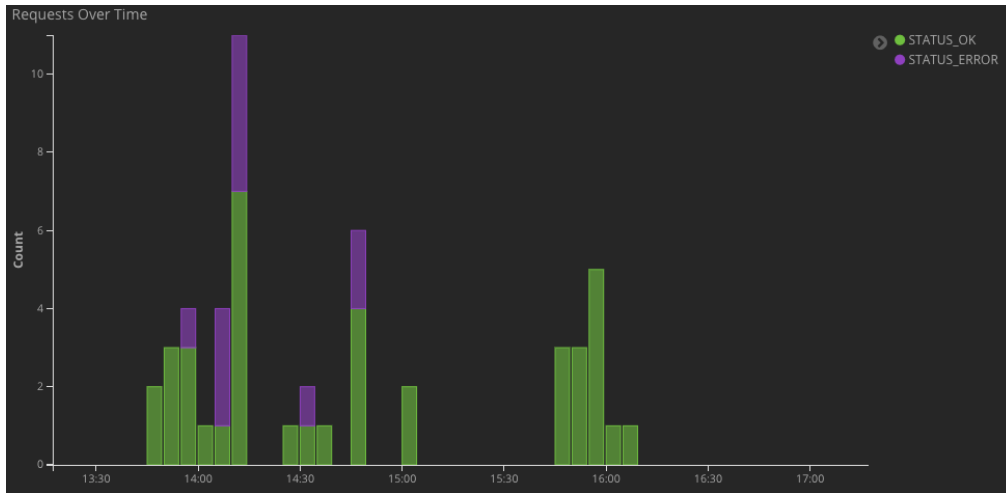
Figure 1: System Utilization Monitoring



Figure 2: System Processes Monitoring



**Figure 3: CPU Usage & Memory Usage Monitoring**



**Figure 4: Requests Monitoring (with Status)**