ELK Stack – Improving the Computing Clusters at DFCTI Through Log Analysis

Robert Poenaru  
DFCTI  
NIPNE-HHMagurele, Romania  
robert.poenaru@protonmail.chDragos Ciobanu-Zabet  
DFCTI  
NIPNE-HHMagurele, Romania  
zdragos@nipne.ro

*Abstract*—The full stack logging service provided by ElasticTM has become a powerful tool within the high-performance computing community due to its ease of use, lightweight impact on the machines, response time, and scalability. In the current work, we attempt to deploy such a stack on a server within out department, which will be used for ingesting, parsing and finally analyzing logs coming from multiple clusters. By analyzing the overall performance of each machine that is under continuous monitorization, we can provide immediate support in case of any issues that might occur, and more importantly, we can improve the computing power of our clusters through optimizations in terms of system management, networking and other specific features.

Keywords— Elasticsearch, Kibana, Logstash, pipelines, logs, metrics, clusters, compute notes, Kubernetes.

# Introduction

Started.

Started.

Started.

Started.

Started.