

Architecture proposal: Frontend (Kibana) integration into Monasca

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- Introduction
- Kibana 4: Architecture
- Integration Scenarios
- Comparison

DRAFT

- Log file management: High-priority requirement in monasca
- Approach: Integrate ELK-stack with monasca
- This document:
 - Focus on dashboard side, i.e. retrieval of log file information
- Writing of log file information: Handled in different document

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- New with Kibana 4: server component (node.js)
- This server component is mandatory (according to Elasticsearch)
- Tasks for this component:
 - Act as a proxy between Kibana client and Elasticsearch
 - Serverside handling that can't be done on the client
 - Authentication and authorization (future version)

Kibana: Data retrieval

Kibana client

Step 1: Send request to Kibana Srv:
URL: `http://localhost::5601`
query: „user:matthias“

Step 4: Return results to client:
"hits" : [{ ... }]

Kibana Server

Step 2: Send request to ElasticSearch
URL: `http://localhost::9200`
query: „user:matthias“

Step 3: Return results found:

```
"hits" : [ { "_index" : „Nike“,  
  "_source" : {  
    "user" : „matthias“,  
    „date“ : "20014-11-15T14:12:33",  
    „shoe“ : „Free V3“  
  }  
},  
  { "_index" : „Adidas“,  
    "_source" : {  
      "user" : „matthias“,  
      „date“ : "20015-01-04T11:27:38",  
      „shoe“ : „Energy Boost V3“  
    }  
  }  
]
```

Elastic Search

■ Requirements:

■ Authentication and Authorization:

Verify that the user is:

- a valid user in OpenStack
- allowed to access log data s/he's requesting

■ Multi-tenancy

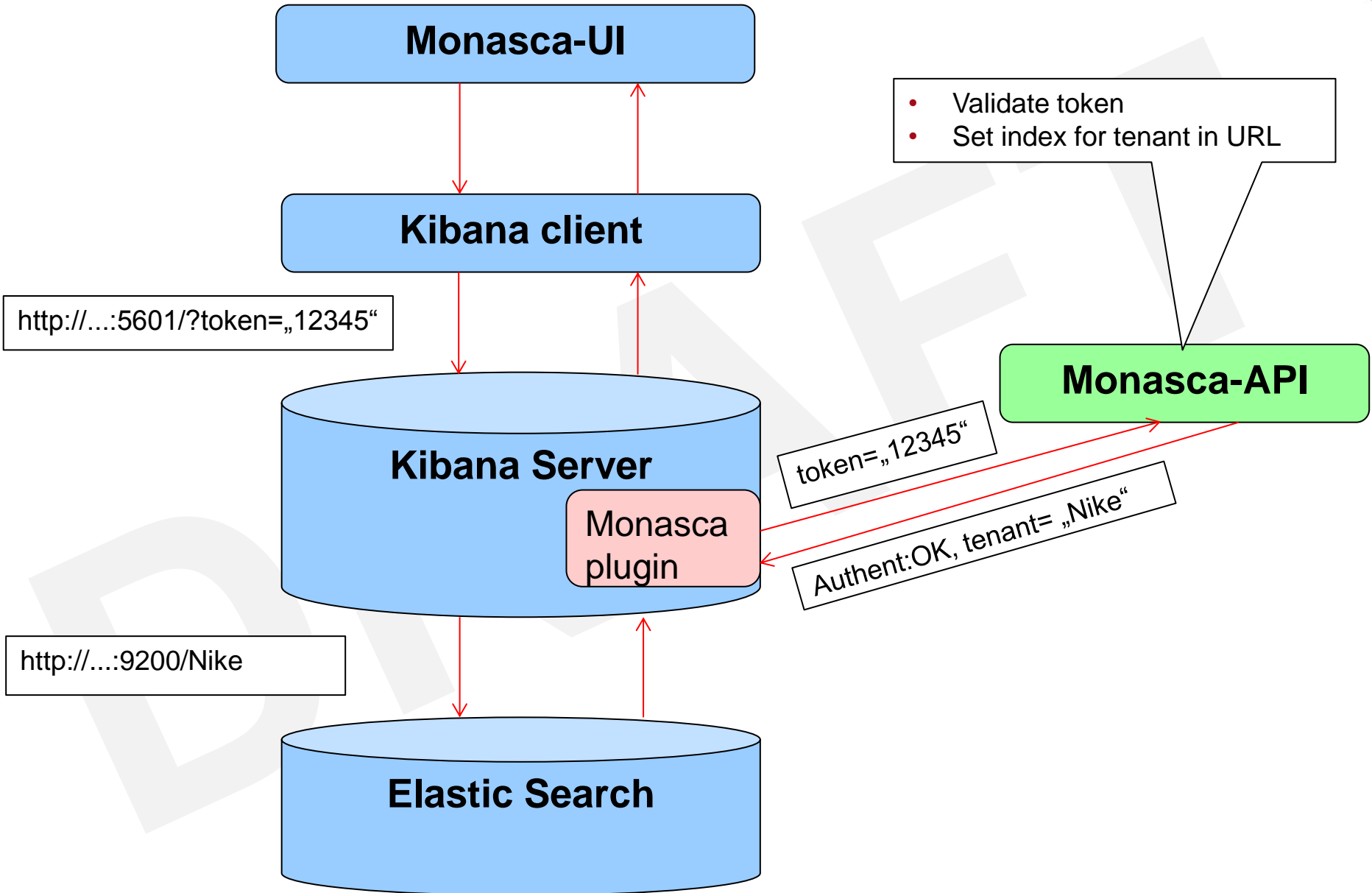
- Approach to support multi-tenancy:
Multiple indices – 1 index/tenant
- Transparent for the user (sees only 1 index)

■ Authentication:

- Verify request against monasca

- Out-of-the-box: No security mechanisms built in to Kibana/ElasticSearch
- Authentication planned for Kibana 4
 - Planned for V4.2: Github issue 1559
 - No detailed information available yet
- Assumption:
 - Authentication will be provided as plugin
- Proposal: Handle authentication in Kibana 4 server


Authentication in Kibana Server



- Lightweight integration: No overhead
- All authentication/authorization is done through monasca
- API to access log file information: Elasticsearch/Kibana
- Elasticsearch not visible for access
- Dependancy on Kibana 4:
 - not yet released
 - Many features in later milestones:
 - Authentication
 - Request filtering
 - ...

- When authentication is available in Kibana 4:
Implement plugin
- Until then:
 - Fork Kibana
 - Stay in sync with progress in Kibana

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