WHITEPAPER

Observability Pattern

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MuleSoft

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As businesses continue to embrace digital transformation, MuleSoft integration has become increasingly important. MuleSoft's Anypoint Platform offers a comprehensive suite of tools for API development, integration architecture, and enterprise integration, making it a top choice for organizations seeking robust data and cloud integration solutions. However, with the growing complexity of modern applications and the need for real-time monitoring and troubleshooting, observability has become a critical requirement for successful integration projects. In this whitepaper, we will explore the concept of observability in MuleSoft integration and how it can be achieved using the Anypoint Platform. We will delve into the key features of the platform, including API lifecycle management and API management platform, and show how they can be leveraged to improve the overall observability of integration solutions. Ultimately, this whitepaper aims to provide insights and best practices for organizations looking to optimize their MuleSoft integration projects through better observability.

The best way to correctly analyze the performance of a system is by measuring it. Observability is a comprehensive set of capabilities around logging, monitoring, analytics, troubleshooting, and measurement of systems.

MuleSoft, as an integration platform, plays a critical role in enabling observability. MuleSoft provides observability features, such as the ability to monitor APIs and services, view logs and metrics, and track errors and performance issues. By leveraging MuleSoft's capabilities and implementing observability patterns, teams can build and maintain resilient, high-performing systems that meet the needs of their users.

Below are some the observability patterns used :-

Audit Logging

This is used for documenting activity within your applications or systems whenever a new event is triggered. It records the occurrence of an event, the timestamp of the event, the responsible users and impacted systems. A series of audit logs is called audit trail. They are highly specific, give enhanced details of the events and their description. Audit logs can be used to track activities happening in a system and also help in finding any potential security breaches. In MuleSoft, audit logging can be leveraged in the application by using an audit structure which can be modified depending on the use case and can further be pushed to a database or some log analytic tools to get


```
{
 "transactionId" :
"b9e0a2dd-a2a9-48cc-8fbc-d50e70e8b8cf" ,
 "auditReferenceId" :
"194b9516-0d91-46b7-92d3-21b55beb3adc" ,
 "currentTimestamp" : "2023-02-26T07:16:01.325419Z" ,
 "sourceSystem" : "Salesforce",
 "targetSystem" : "MuleSoft",
 "description" : "",
 "status" : "Success",
 "otherAttributes" : [
   {
     "key" : "orderNumber",
     "value" : 2342
   },
   {
     "key" : "eventId",
     "value" : "23hjd-35asf"
   }
 ],
 "errorPayload" : "",
 "errorDescription" : ""
}
```