# API Management Best Practices

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# Objective

The following guide is intended to show and describe the best practices around API Management**.**

# Audience

* Application/Operator Admin
* C4E Architect / Architects
* C4E Core Developers

# Best Practices

## SLA Tiers

* Despite you can define SLA tiers per API, as a best practice the SLA definitions should be homogeneous across all APIs or across defined groups of APIs.
* Define SLA tiers for each API to enforce the approval workflow and access limits (limit the number of requests an application can make to the API).
* The Names and values of the tiers should be standard across all APIs following a naming-convention

| **Tier Name** | **Approval** | **Limits (example)** |
| --- | --- | --- |
| **Basic** | Auto | 100 requests / hour |
| **Gold** | Manual | 100 requests / minute |
| **Platinum** | Manual | 100 requests / second |

* The limits are purely descriptive and should be enforced by using policies. Enforce the SLA tiers with SLA-based policies such as**rate-limiting** and **throttling**
* For more information: <https://docs.mulesoft.com/api-manager/defining-sla-tiers>

## API Policies

* The policies should be applied homogeneous across all environments
* Apply at least one of the following security-related policies
  + Client ID enforcement
  + Open ID token enforcement (OAuth2)
* Apply an SLA rate-limiting policy defining the limits based on the Performance Testing results for each API implementation

## API Alerts

* Despite you can define Alerts per API, as a best practice the Alert definitions should be homogeneous across all APIs or across defined groups of APIs.
* See: Notifications and Alerts (TBD)

## Analytics

* Use the default dashboard to see API consumption parameters
* Create a custom dashboard with custom charts if needed