

Introduction to API Management with APIGEE



Agenda:

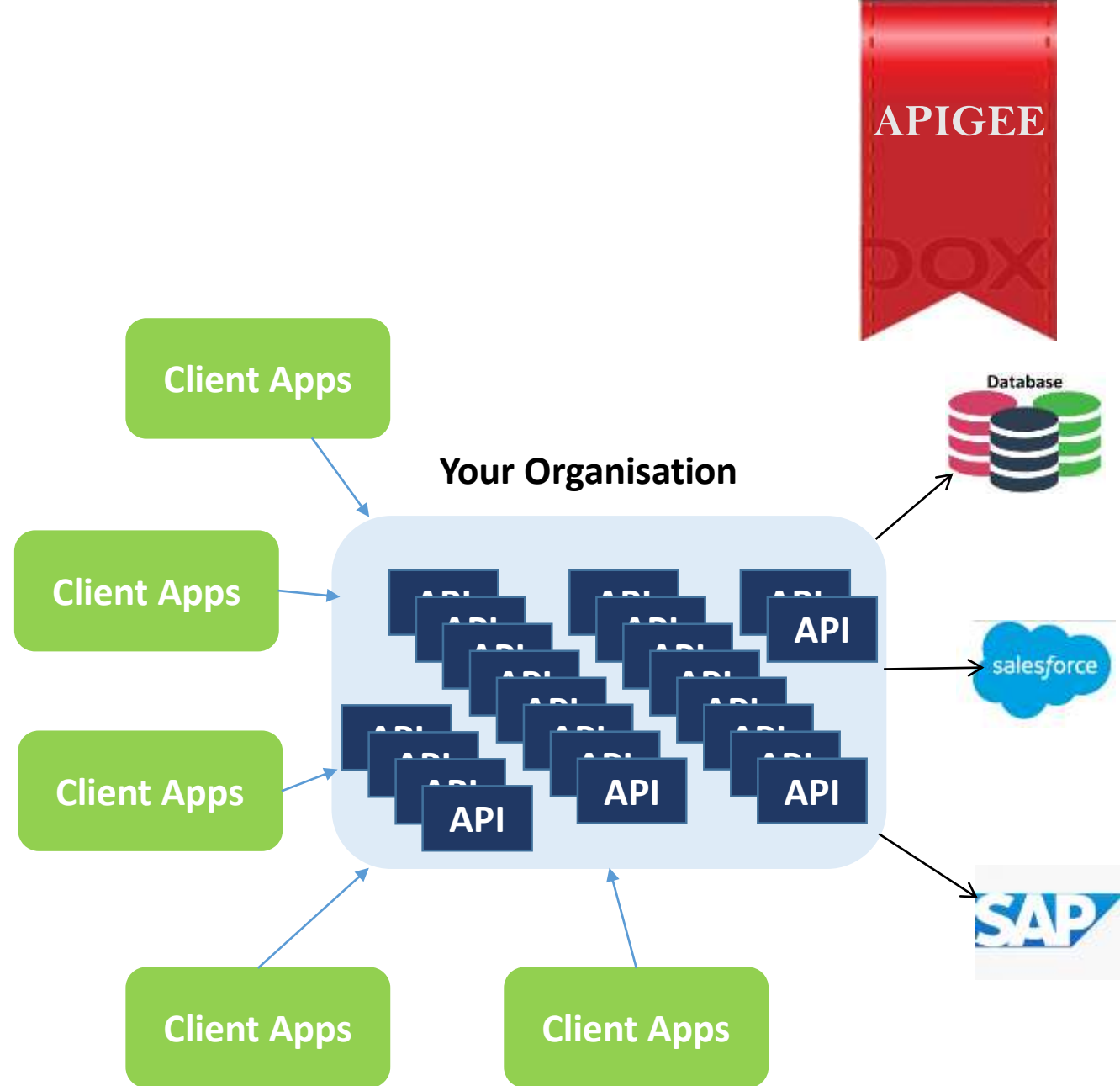
- What is API Management
- Why API Management
- What is APIGEE
- Role of APIGEE in API Management
- Various tools and capabilities of APIGEE
- Explore APIGEE Edge UI

APIGEE



API Management

- With the adaptation of microservices, organisations create and manage hundreds of APIs if not thousands.
- These APIs connect client applications and data across the enterprises and across different cloud platforms.
- It is important for an organisation to have control over and visibility into these APIs



- Organisations should be able to
 - Designing APIs
 - Publish APIs
 - Developer portal
 - Create API gateway (API Proxies)
 - Manage API traffic
 - Apply Security
 - Analyse APIs
 - Monetize APIs
 - Manage app developers (Consumers)
 - Provide different consumption models
 - Find and report attacks from malicious clients
- All the above mentioned requirements are part of API Management



API Management use cases

APIGEE

- Consumed internally (i.e. within org) so far
- SOAP is very complex to consume and secured using WS security
- REST API has some operations and secured using basic authentication

SOAP API

Complex
WS security
Exposes Flights
data(XML)

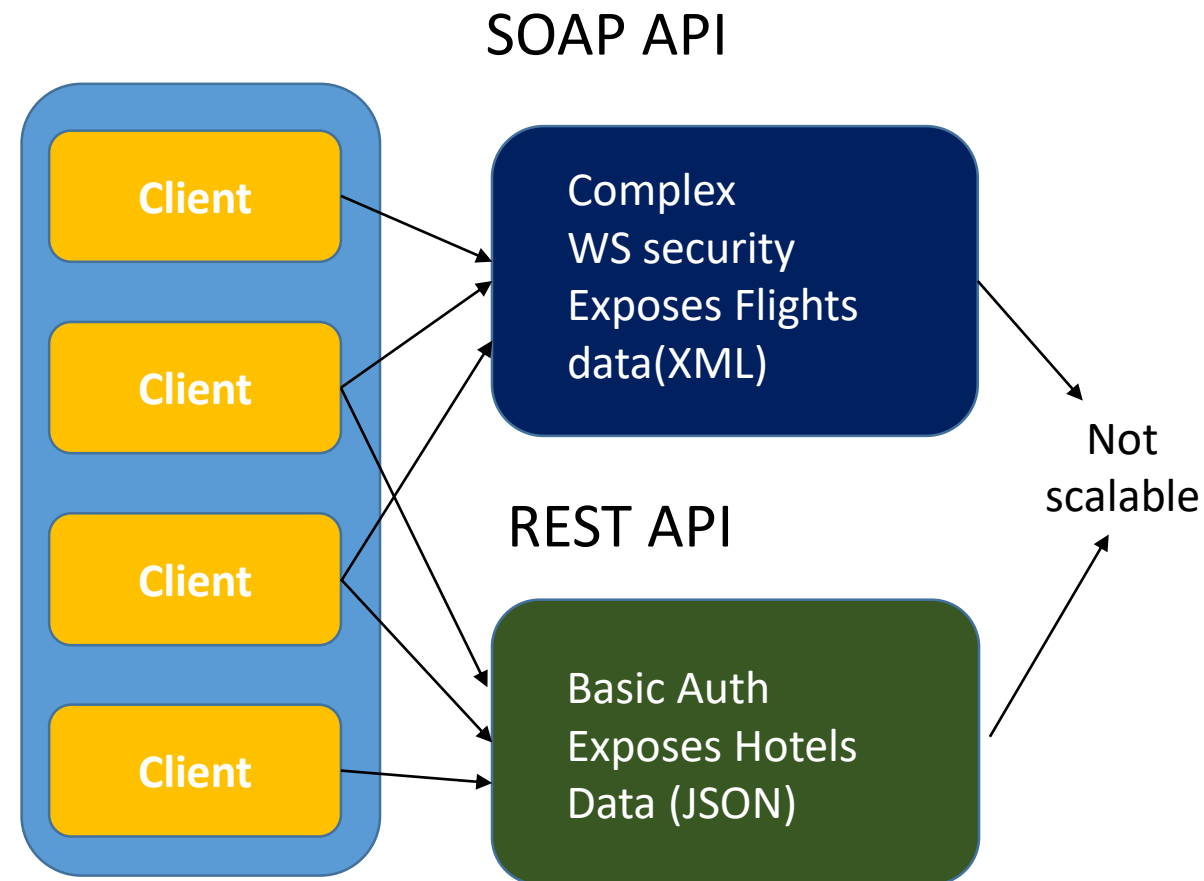
REST API

Basic Auth
Exposes Hotels
Data (JSON)

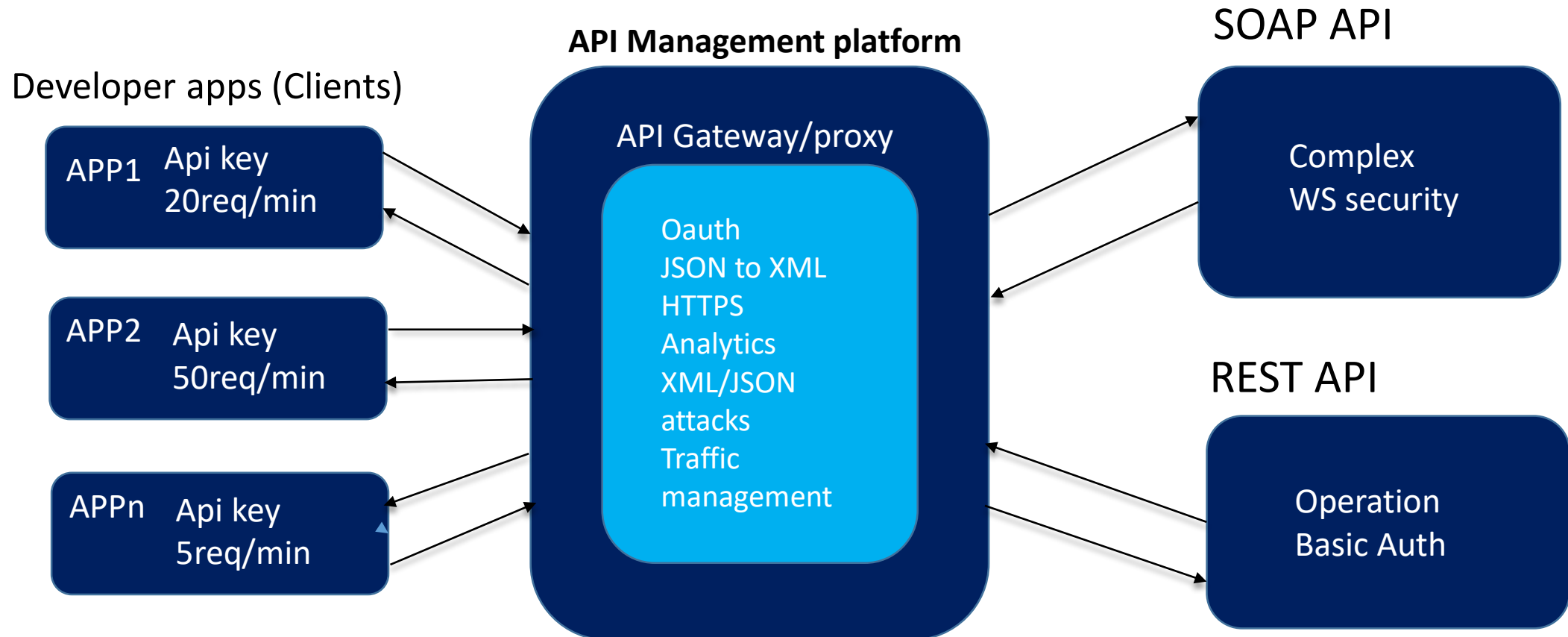
API Management use cases

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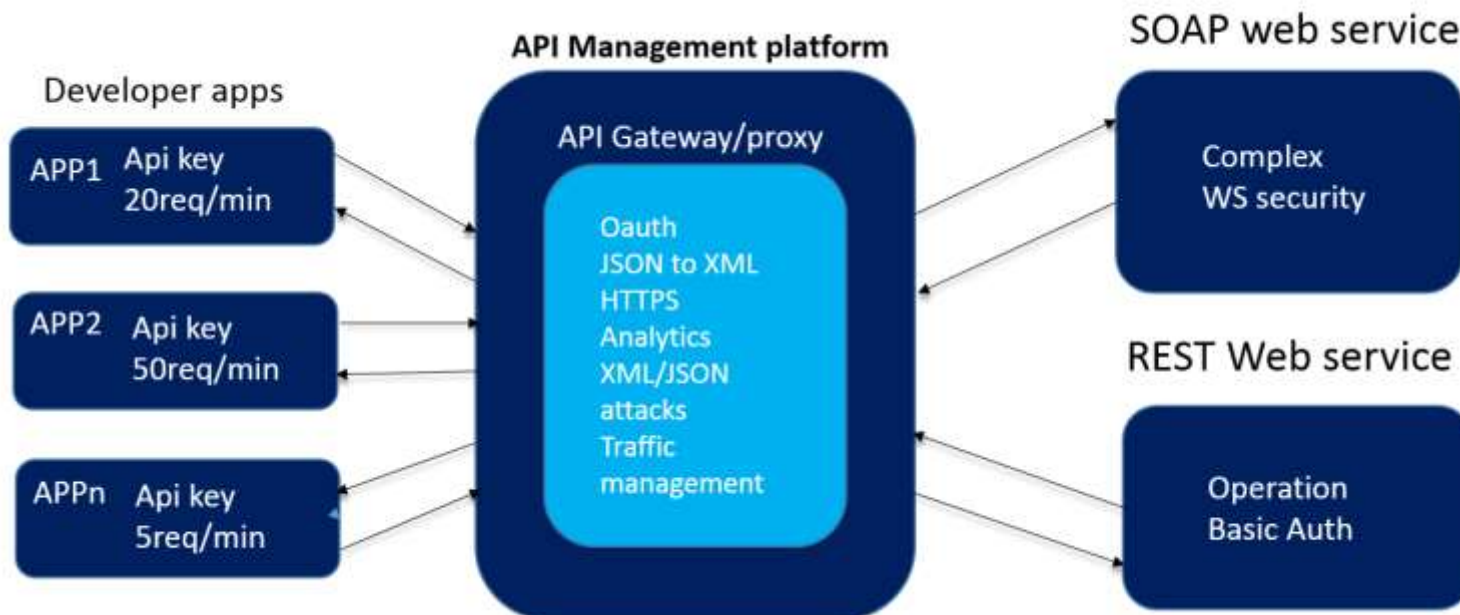
- Organisation has decided to expose these APIs to other organisations (Clients)
- While doing so below challenges arise
 - Expose as less complex REST API with API spec
 - Track consumers (Developer apps)
 - Traffic management
 - Consider better security options
 - Analytics
 - Support Https and JSON payload
 - Group services into Products and monetize
 - Existing services are not scalable



- It will be great if all the above features can be added to APIs without the need to modify existing services
- This is where API Management platforms comes into picture



- API Management platforms creates API proxies to manage APIs
- Some platforms allows us to also create APIs from scratch and expose data
- Decision is up our organisation



Apigee

APIGEE

- Apigee is an API Management platform that provides all the above mentioned capabilities and few more features
- It has below products
 - Apigee Edge
 - Apigee Sense
 - Apigee Monetization



Apigee Edge

APIGEE

- Apigee Edge is cloud based API Management platform that is available at <https://apigee.com/edge>
- Available for trial use
- Multiple users with different roles can be added to the Apigee Edge account

- It has the below capabilities
 - Designing APIs
 - Publish APIs
 - Developer portal
 - API gateway (API Proxies)
 - API traffic management
 - Security and other OOTB policies
 - API Development lifecycle
 - Analytics capabilities
 - Create and manage Developers and developer apps*
 - Create and manage users



• Lab

- Create apigee edge trial account
- Explore Edge UI

APIGEE

DOX

Apigee Sense

APIGEE

- Apigee Sense protects your APIs from unwanted request traffic, including attacks from malicious clients.
- Apigee Sense analyses API request traffic, identifying patterns that might represent unwanted or malicious requests.
- This data can be used to identify malicious clients action to allow, block, or flag those requests.
- As of now not available in the trial version

- You can protect your APIs from below request patterns
 - Automated (robot) behaviour
 - Persistent attempts from the same IP
 - Unusual error rates
 - Suspicious client requests
 - Data crawling
 - Key harvesting
 - Geographical patterns



Apigee Monetization

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- Apigee Monetization provides a flexible way to monetize APIs to charge developers for the use of APIs.
- App developers register into developer portal to obtain a unique API key
- They send the API key with requests, which uniquely identifies the developers and their apps in Edge.



- This allows us to track who is calling APIs and charge app developers for their usage.
- You can also measure the usage data through analytics and generate reports.
- This is not available in the trial version



