Powering Business Value and Seamless Experiences

GSMA Mobile Connect Accelerator and API Exchange by Apigee
Apigee Digital Value Chain for Network Operators and Service Providers
BACKEND Mobile Network Operators need to easily and securely expose services and data, unlocking the value from their back-end systems.

API MNOs need to quickly and securely publish intuitive APIs to share data and services, and onboard developers and partners with self-service provisioning.

API TEAM Wants better business outcomes; Wider reach; Quick results. In addition, they also want monetization and better subscriber insights.

APP DEVELOPER Wants to deliver better app experiences via features like Single click. They want to leverage Subscriber Profiles, Subscriber journey intelligence and build in Security.

SUBSCRIBER Apigee enables digital businesses to build and operate the systems at the speed necessary to engage and transact with customers on a myriad devices 24/7.

APP Modern mobile apps, smart devices, connected experiences and digital ecosystems are connected to the data and services that power them via APIs.

BUSINESS Wants to drive new revenue streams, create innovative business models and stay ahead of competition.

MNO BUSINESS STAKEHOLDER

MNO API TEAM

SERVICE PROVIDER

APP DEVELOPER

SUBSCRIBER

DIGITAL VALUE CHAIN
Apigee: Driving Value Across the Digital Value Chain

MNO Business Stakeholders
- Enable Innovation Thru Apps
- Launch new Revenue Streams
- Monetize Digital Assets
- More Reach using Exchange

MNO API Team
- Open ID Connect
- On-net and Off-net Auth
- Create Auth or User Store
- Extend Existing User Store
- Consent Mgmt
- Provide SSO Solution

Service Provider App Developer
- Mobile and HTML5 Friendly
- 2nd Factor Authentication
- Access Provider’s User Data
- Standard Exposure
- Better User Experience
- Experience SSO

Subscriber
- User Registration
- Ease of Use
- Forget Password
- Self-Service of Profile
- Self-Service of Consent

Flowchart:
- MNO Business Stakeholders
- MNO API Team
- Service Provider App Developer
- Subscriber
Apigee Intelligent API Platform
Apigee Enables Companies to Become Digital Businesses

Everything = Interconnected

Interactions = Data

Developers = Growth

Modern software is built and operated differently
The Intelligent API Platform
Mobile Connect Accelerator (MCX) with Apigee

Out-of-the-box Integration with API Exchange

• End-user subscriber self-service registration portal
• Security, privacy and authentication
• Subscriber consent
• Identification and application of preferred Authenticator
• Interface for subscriber lifecycle events
• Compliance with the Mobile Connect Service Mark Communication Guidelines
• Service Provider self-service portal for Service Provider registration, lifecycle management, SDK with Mobile Connect API and the relevant API Exchange APIs
• Robust logging capability of any transactions occurring through the MCX platform
• MCX Identity Gateway as an abstraction layer between Service Provider and MNO with policy-based, configurable authenticator selection
Today: Fragmented Experiences, Siloed Subscribers, Unengaged Partners
With API Exchange: The API Interoperability Platform
For the GSMA, by Apigee
API Exchange: Automating Subscriber Discovery and Reach

**Flow**

1. Application calls central “Discovery” capability to determine to which mobile network operator a subscriber / user of the application belongs to, leveraging IP address, MSISDN, ...

2. Return: Operator B details, API exposure endpoint address and access credentials

Application calls “API” of discovered, Operator B (optional): Operator calls “Request Validator” to validate API access credentials
Differentiate their Digital Assets, Expand App Ecosystem

- **Enables** MNO APIs to interoperate, while allowing them to differentiate
- **Empowers** MNOs to sell each other’s capacity and cross bill for settlement
- **Provides** MNOs control over app developer experience and subscriber experience
- Delivering subscriber-base discoverability to app developers
- **Does not interfere** with MNO to App Developer and MNO to Subscriber Relationships
Direct relationship with one MNO to scale target market

- App Developers interact with **multiple API providers that offer similar services**.
- With API Exchange, they **partner with one MNO on the API Exchange and gain access to all interoperating MNOs**.
- App Developers **optimize subscriber reach and reduce the cost** of developing against the APIs of different providers.
- Accelerate the development, adoption and reach of their apps
Seamless and Secure Experiences, Innovative Apps

- **Access to multiple apps** that utilize Mobile Network Operator capabilities
- **Across any network, any device and any location**
Why Apigee
Only Apigee: Grow with Scalable, Secure APIs and Interoperability
with API Exchange and Mobile Connect Accelerator

- Easily extend your API catalog beyond Identity with Apigee Edge

- Out-of-the-box integration with Apigee API Exchange

- Personalize with predictive analytics through Apigee Insights

- Future-ready for the Internet of Things with Apigee Link
Only Apigee:
Easily extend your API catalog beyond Identity with Apigee Edge

- Start with the Mobile Connect API as the identity API
- Extend with other APIs: Profile, Consent, Location, Device APIs etc. with Apigee Edge
Only Apigee: Out-of-the-box integration with Apigee API Exchange

- Engage Service Providers with subscriber opportunity thru interoperability with other MNOs
- API Exchange: Out-of-the-box Mobile Connect Accelerator capability
- Easily scale and innovate by extending your Service Provider ecosystem
Only Apigee: Personalize with predictive analytics through Apigee Insights

- Leverage Apigee Insights for Predictive Analytics to Build Adaptive Apps and APIs
- Maximize customer satisfaction & retention, targeting & recommendations with individualization
- Use predictive models to meet the operational needs of apps and APIs in the digital ecosystem
Only Apigee: Future-ready for the Internet of Things with Apigee Link

- Easily capture the IoT opportunity with device APIs using Apigee Link
Apigee: the choice of the world’s top telcos
Apigee API Exchange customers with GSMA
More API Platform deployments than any other vendor
Connected experiences change everything

Apigee leads with interoperable APIs
<table>
<thead>
<tr>
<th>Base*</th>
<th>Premium (Public Cloud)</th>
<th>Premium (Hybrid Cloud)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mobile Connect Accelerator (Public Cloud)</td>
<td>• Mobile Connect (Public Cloud)</td>
<td>• Mobile Connect (Private Cloud)</td>
</tr>
<tr>
<td>• API Exchange (Public Cloud)</td>
<td>• API Exchange (Public Cloud)</td>
<td>• API Exchange (Public Cloud)</td>
</tr>
</tbody>
</table>

* Free

- Quick On-boarding
- Seamless Experience
- Industry-leading Hosted Solution
- Managed, Secure and Scalable
- On-Prem Option to Meet Your Needs
- Managed, Secure and Scalable
About Apigee
Apigee Company Overview

Public, NASDAQ listed Company (APIC)
• Founded in 2004
• 400+ employees, 50% growth

Intelligent API Platform Provider
• Apigee's single secure platform for APIs and predictive analytics helps customers to accelerate the pace at which their businesses share, innovate and adapt.
• Products = Edge; Insights; API Exchange and Link

Enterprise and Telco Customers
• 500+ customers
• Five of the top 10 Global 2000 retail brands
• 70% of the world's 10 most valuable telecoms brands
• 25% of the world's most admired companies
• 20% of the Fortune 100
Thank you
## Apigee Mobile Connect Products

<table>
<thead>
<tr>
<th>Features</th>
<th>Apigee Mobile Connect Accelerator - Base (Public Cloud) - Free</th>
<th>Apigee Mobile Connect Premium (Public Cloud)</th>
<th>Apigee Mobile Connect Premium (Private Cloud)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open ID Connect/Mobile Connect Profile Support</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>User Self Service: Registration and Profile Management</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>User Self Service: Consent Management</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Authenticator: SMS PIN based authentication</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Authenticator: On-Network/Header Enrichment</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Authenticator: USSD Gateway Integration</td>
<td>No</td>
<td>Standard API Integration only.</td>
<td>Standard API Integration only.</td>
</tr>
<tr>
<td>Authenticator: SIM Applet through MSSP Integration</td>
<td>No</td>
<td>Standard API Integration only.</td>
<td>Standard API Integration only.</td>
</tr>
<tr>
<td>Developer/Service Provider Portal</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Can be used for hosting other APIs</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Custom Integration/ Branding Implementation Services</td>
<td>Self-Service</td>
<td>Yes. Additional Charges will apply</td>
<td>Yes. Additional Charges will apply</td>
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<tr>
<td>SLA</td>
<td>99%. Goodwill basis. No Liability</td>
<td>99.50%</td>
<td>N/A</td>
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<tr>
<td>Support</td>
<td>Community Support only.</td>
<td>Apigee Standard Support (Level 2)</td>
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<tr>
<td>Traffic Restriction</td>
<td>Apigee Developer Edition Limits</td>
<td>10 Million Per Month. Additional API units can be bought.</td>
<td>N/A</td>
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<tr>
<td>Price</td>
<td>Free</td>
<td>$80,000 per Year</td>
<td>$190,000 per Year</td>
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<tr>
<td>Additional Packs to purchase</td>
<td>N/A</td>
<td>Data Retention Pack, PCI and HIPPA Compliance Pack; Monetization; Insights</td>
<td>Monetization, Insights</td>
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