Digital Transformation Services – Topics Details

How to Use This List

This comprehensive list of topics describes details of the Apigee Digital Transformation Services. While each topic has a unique central concept, it is not mutually exclusive from the others; together they describe most aspects of healthy API programs.

Please refer to the Digital Transformation Services – Packages datasheet for typical groupings of these topics.

Business Strategy Topics

Enterprise mission and digital strategy
Successful enterprises undertake a digital strategy with renewed commitment to their existing mission. Reviewing your enterprise mission in light of digital opportunities, we uncover substantial and surprising insights that lead to new core principles for your digital initiatives. From there, a series of ideation exercises bring fresh perspective and may even reveal new core principles to inspire your digital initiatives. It was a comprehensive, evolving digital strategy that transformed Walgreens customer experience, bringing new revenue and new customers to their existing products and services.

Outcomes and KPIs
Enterprises typically drive their business with the use of KPIs and translate them into initiatives. We take a careful look at your KPIs, and identify how they can be affected by a broad set of digital capabilities. The results include the definition of secondary metrics that can serve as performance indicators for the digital journey, driving the digital team and providing long-term executive visibility that will nurture the program.

Effective governance
Enterprises embarking on their digital journey are recommended to establish a cross-enterprise digital competence with an API team at its core. We survey the organizational landscape of your enterprise to uncover critical points of alignment, and define a governance framework that empowers the entire program for success.

Digital ecosystems and platforms
Some markets have experienced the emergence of singularly dominant players who, instead of trying to displace all others in their space, have turned into enablers for all others. We review the characteristics of multi-sided markets, and explore how you could transform your position in your market into a central platform for others using digital strategies. Examples span different verticals to reveal the commonalities and patterns of success.

Market trends and examples
In a survey of the global market with a focus on the digital economy, we uncover the massive size of the opportunities, and explore how vanguards are realizing their success. We look at how new digital natives as well as century-old companies are breaking the mold and charting the way, and how these examples inform your path forward. We especially dive into companies related to your vertical, and bring learnings and observations of what works for them.

Digital Products Topics

Structure of digital products
The digital paradigm creates the opportunity to re-envision existing products in the hands of customers, as well as envision new products that could not exist before. Well-designed digital products also have distinct characteristics that lead to delightful customer adoption, satisfaction, and profitability. Starting with the enterprise mission and an existing product portfolio, we define what a portfolio of digital products looks like, and how increasingly it defines your identity with your customer. The topics include user experience, apps and devices, digital product design, customer interaction, as well as underlying product architectures used by application and product developers.

Digital product lifecycle
The existing software development processes of most enterprises are constrained by legacies and often burdened with controls that have not adapted to change. We walk through and revise your software development processes with which you create and manage digital products end-to-end. Digital products retain all aspects of traditional products: market requirements, technical specification, design, marketing, channels and partners, etc. We review these and apply principles of agility, fail-fast, use of analytics, process decoupling, and identify areas where refactoring of processes could yield significant business results.
APIs for digital products
At their core, digital products and apps are enabled by APIs that make enterprise assets and processes available to the developers who create value that the owners of these assets could not do on their own. APIs can unshackle such existing investments and result in unprecedented business value. We define the role of APIs in your digital products, and create recommendations for your enterprise based on best practices, leading to well-designed APIs that meet the needs of a diverse and changing ecosystem of apps.

Monetization strategies for digital products
Digital products are on track to become the primary source of revenue for many enterprises. We select potential monetization approaches from a broad palette of strategies, and apply them to your candidate products. This includes freemium, per use, revenue share, and many other models, as well as revenue realized by boosting value elsewhere in the product portfolio.

API lifecycle
While APIs are essential “ingredients” for digital products and apps, successful enterprises treat the APIs themselves as products, in every sense. We establish a plan for how your API program starts with an initial IT project, and then rapidly transitions into a permanent product line, even if they are only used for internal purposes. The lifecycle includes technical and management structures that are common to many successful digital product portfolios and the teams that create and manage them, including software product development and change management processes tailored to the rigorous requirements of the digital value chain.

Behavior Insights Topics

Context and insights for your business
Analytical activity and mining of data in your enterprise is usually already related to your enterprise mission; more challenging is defining all the new influences the digital economy brings to bear. We take a look at the changing ecosystem and uncover relevancies that are redefining your enterprise context, to identify new candidates for business insights that are becoming available. To maximize the value of this topic, it is best done with the top strategists of your enterprise.

KPIs and metrics
Modern enterprise KPIs need to be simple, measurable, actionable, relevant and timely in the digital ecosystem. We review your KPIs and create traceable lineages to metrics that can be measured through new technology, especially API platforms.

Data science
The term has quickly become the rage in the board rooms of many enterprises, and fueled an investment boom to deliver on the promise of predictive analytics. We deconstruct data science in a business context, and define relevance to your digital transformation effort and your API team in particular.

You will gain a better understanding of the applicability of investments in digital teams and API platforms to this emerging trend.

Big data and fast data
All digital strategies must include the use of new data streams that uncover customer behavior and provide real-time feedback to product managers. We review how new sources of data in digital platform technologies become sources of knowledge and drive business insights for measurable competitive advantage.

Real-time consumer
The technology-enabled link between enterprise and customer is undergoing fundamental changes, enabling real-time interactions with each other that have been in the realm of science fiction. We look carefully at the core mission and new context of your business to sort out the science from the fiction. From that foundation, we apply the possibilities of predictive analytics and data science, the real-time nature of many new data sources, and the technology links to the consumer to sketch out valuable interaction scenarios that lie within reach.

Developer Ecosystem Topics

Developers and partners
Successful digital enterprises build ecosystems of partners and developers that act as business channels for existing and new innovations in the enterprise offering. We review the characteristics of these important relationships, and develop a plan to make them sustainable and profitable for your enterprise. This includes partner development programs, developer outreach, joint ventures, innovation centers, internal digital foundries, and other concepts that take shape in the context of the enterprise’s specific opportunities and digital initiatives.

API Team and resources
Successful enterprises establish a dedicated API team as part of its digital competence center. We match your enterprise vision of digital products and APIs with a portfolio of skills and roles for your API team, and review best practices and habits to hire and train for. A successful cross-enterprise digital competence is responsive not only to its governing body, but to other business units, external partners, developers, infrastructure teams, and others. We define roles and responsibilities, and how the team fits into the rest of the enterprise and business relationships.
Open, partner and private styles of API programs
Enterprises make available their APIs in controlled programs designed to maximize their value. We define the characteristics of your enterprise APIs, and apply them to the three groupings typical in most enterprises, and develop groups specific for your enterprise: open, partner, and private API programs. Rather than categorizing each API, we uncover the controls necessary to provide value from APIs to all three scenarios simultaneously, and maximize the principle of reuse of shared services.

Managing developer communities
Developer communities are rather informal networks that have huge impact on the success of your APIs and digital products. Without developers using them, your APIs are useless. We inspect these different kinds of social networks, assess their potential impact on your business, and identify strategies to engage and guide them to contribute to your success. While fundamentally driven by business value, these communities must be properly engaged to become invaluable resources for your program.

Developer support and liaison
Developers working for the enterprise, for partners, or for themselves need specific types of support to be effective and to become your advocate. Especially partnerships are directly affected by the quality of support you give to the developers using your APIs. Distinct from the management of communities, we outline the assets and programs to build and maintain these business relationships, and define the responsibilities your liaisons and support organizations have toward developers.

Metrics and analytics for developers
A great digital platform provides the capabilities to measure dozens of metrics for each developer, each partner, and each digital product and app running on the platform. We review the out-of-the-box reporting capabilities of the platform, and develop analytics that measure impactful results for your enterprise as well as the developers and partners themselves. The result is an ecosystem that is informed in real-time about its own performance, creating a sustaining feedback loop that drives quality for your initiative.

Digital Platform Topics

Logical Platform Architecture
The digital platform consists of logical components that provide distinct services: API gateway; developer portal; app developer services including location, push notification, social graph, identity; data collection and analytics, and business insights. We delve into the structure and organization of these functions, and how they work and interact. This exploration of how the system works is for the manager, and does not constitute a developer training.

API façades, policies, and transformations
At the heart of managed APIs and digital products is a gateway that presents a tightly managed interface to apps and partners. The design of the mechanics and data structures of these APIs are critical to the success of your digital strategy. We review key design principles for API façades, and develop facades for your initial set of APIs, applying tips and tricks learned from the evolution of the web and commonly expected by most developers. We also identify the backend services relevant to your planned APIs, and apply transformations that map the services to your façades. This process highlights best practices, common patterns, and leverages specific tools available in the digital platform to support these activities.

API analytics and metrics, and insights
The API gateway identifies, times and monitors every element of the API call, including the calling app, the applied policies, and the backend services that are invoked. We review these built-in analytics capabilities of the platform that support its smooth operation, and how they serve the individual actors in the digital value chain. We also survey the big-data capabilities of Apigee Insights to achieve unprecedented understanding of the digital ecosystem.

API lifecycle support
The digital platform itself provides many of the functions to handle the API lifecycle. We address how these functions are used to support and accelerate your enterprise policies, including managing versioning, migration, and deprecation. The topics include the use of code repositories and other relevant tools.

BaaS, monetization, and mobile
The Apigee platform provides a broad set of integrated capabilities that fully enable digital services for developers building digital products on top of your enterprise APIs. We leverage the built-in identity management and social functions, mobile push notifications, add custom applets and services with persistent data stores, invoke the sophisticated monetization features, and mine the analytics delivered by the mobile Apigee SDK that developers can include in their apps.

Security, privacy and auditing
The API gateway is the secure chokepoint where every interaction with your business is secured and inspected. We review best and common practices in this critical area of gateway functionality, and apply the built-in authentication and security mechanisms to your APIs. We also walk through the mechanisms to augment basic functions with identity management, privacy operations, and other techniques and existing subsystems relevant in your enterprise.
System Infrastructure Consulting Topics

Infrastructure architectures
Some enterprises face regulatory and operational requirements that demand API gateways to be installed in their own datacenters. We review your enterprise policies and IT requirements to arrive at an architecture for the API gateway and the platform, and carefully walk through the benefits and tradeoffs this option presents.

Performance, scale, and optimization
Networks are often fiendishly difficult to trace, and latency is critical to some businesses like telecom and carriers. In addition, global enterprises are challenged to meet the demand of millions of simultaneous customers at scale and speed. We help assess your deployment plans for latency and scale, and provide deep technical information about Apigee cloud and on-premise instances to support the creation of a solid plan that meets the business requirements of your digital ecosystem.

Capacity Planning
Most enterprises experience varying levels of demand for digital products and services for which a detailed plan can prevent difficult surprises. We review operational plans to detect seasonal or special event bursts, flexibility in required service levels, varying levels of requirements among different kinds of partners, and other variables that impact the need for throughput capacity. Experience has also shown that bottlenecks appear anywhere in the value chain, and the gateway is often not a cause, but can serve as a tool for resolution elsewhere. We scan the architecture end-to-end to help highlight potential trouble-spots, and support the discussions about monitoring and mitigation plans.

Security and identity
The API gateway has extensive capabilities to secure the interfaces, but in most enterprises the trust center itself lies within the private network. We review practices to leverage identity services including LDAP, AD, and other technologies such as certificate stores, and walk through potential configuration changes to maximize such assets.

Availability, continuity, disaster recovery
The digital platform is a gatekeeper for enterprise assets used by internal units, external partners, and innovative developers, making it subject to strict availability requirements. Building on the “infrastructure architectures” module, we assess business continuity plans and review the mechanics for disaster recovery in the digital platform. The result can influence deployment configurations, clustering decisions, and other aspects of the end-to-end system.

Monitoring, analytics and diagnostics
The detailed analytics generated by the gateway are critical for detecting and debugging infrastructure and compute resource issues. We explore some examples of how analytics help identify a host of problems often missed by other monitoring tools.

IT change management practices
The API platform serves as a new layer of abstraction that decouples infrastructure and application systems. We review your existing enterprise IT change management processes and carefully decouple the management of APIs and apps from these processes, in order to achieve the velocity of change that the digital economy demands to be successful.