Technology Orchestration

for As-a-Service business models

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With epic technology disruptions affecting companies across industries, customers increasingly are demanding more flexibility from their technology solutions at a more manageable and predictable cost. High-tech companies, in response, are exploring a shift from their traditional business model of selling products to one that enables customers to buy those products as a service.

In addition to providing an enhanced customer experience and fostering greater customer loyalty, As-a-Service models are inherently more flexible and scalable; enable customers to move their technology spend from CAPEX to OPEX; and help companies efficiently monetize data to drive innovation and growth.

However, while As-a-Service business models provide significant benefits to both high-tech companies and their customers, adopting them is far from easy. It requires not only a comprehensive, well-articulated business strategy backed by strong organization change management, but also new or substantially upgraded capabilities across product engineering, sales and marketing, manufacturing and supply chain, after sales, billing, and core finance.

An As-a-Service transformation is highly cross-functional and requires new capabilities across enterprise processes.

Legacy capabilities

New capabilities for EAAS

R&D

Waterfall Product Development
Siloed Hardware & Software Development

Connected products
PLM – ALM integration
Digital thread

Sales & Marketing

Traditional CPQ
Single order
Product pricing
Individual products one fit for all

Bundled offerings
Entitlement management
eCommerce based CPQ

Consumption pricing
Sales order split

Mfg. & Supply Chain

Siloed product
Physical delivery
Traditional logistics & distribution

Connected offerings (IoT): Telemetry capability
Fixed delivery + Virtual provisioning

After Sales

Warranty sales
Periodic maintenance
Sporadic customer engagement

Reactive process
Manual renewal

Cross sell/up sell
Proactive device monitoring
Proactive customer engagement
Analytics driven renewal

Enterprise Functions

Hardware sales revenue recognition
Hardware & software siloed billing

Convergent invoicing
Usage based convergent invoicing
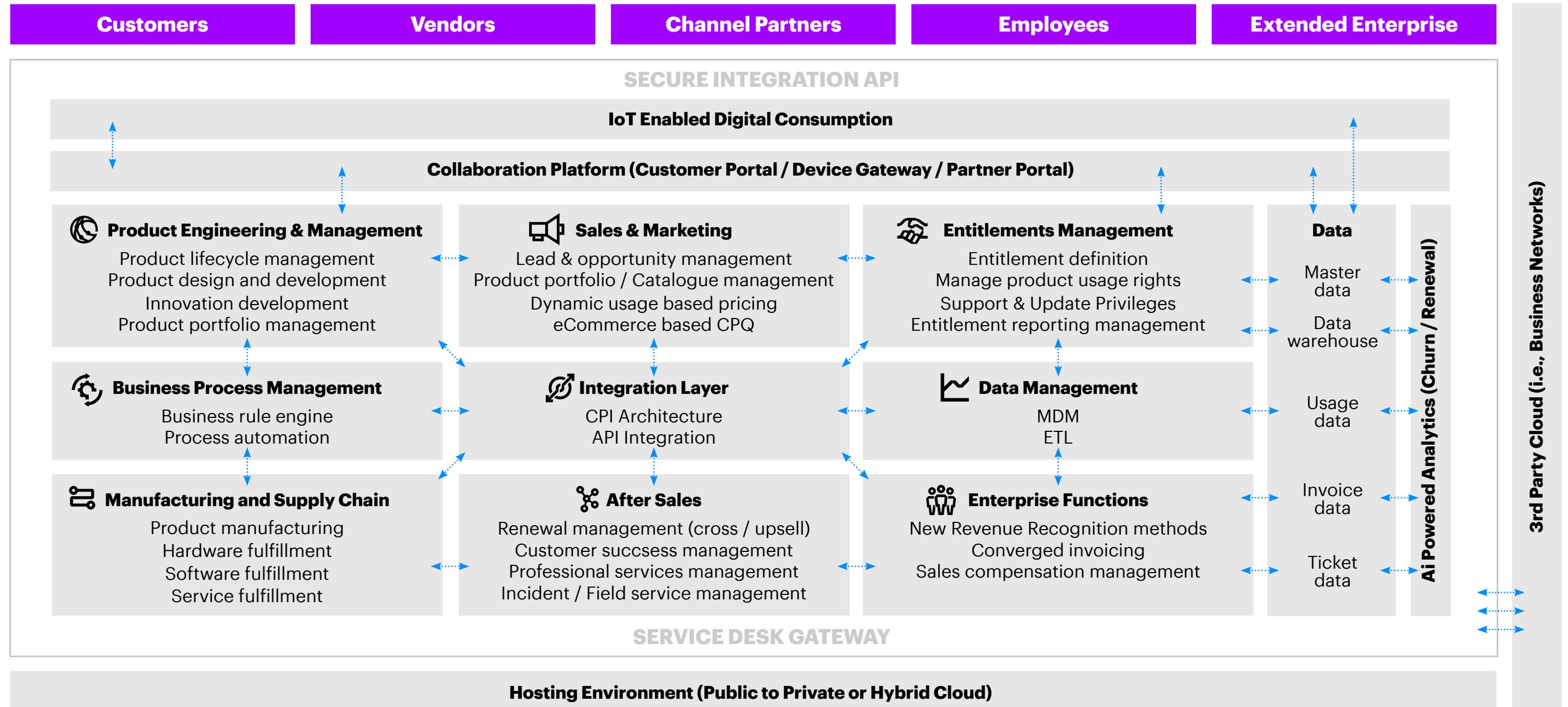New revenue recognition methods

A holistic reference architecture for technology enablement

With a shift to As-a-Service, a company's operating model and business processes clearly undergo a significant change. But that change can't happen without an accompanying holistic technology and infrastructure transformation to enable the new As-A-Service model. The fact is, most companies' legacy technology environment, which has served the product-centric model well, can't provide the capabilities—not to mention the flexibility, scalability, and security—that As-a-Service models need to succeed.

The technology to enable the adoption of an As-a-Service shift not only affects an enterprise's inherent capabilities, but also transforms the experience across a company's ecosystem.

This reference architecture provides a high-level view of the solutions that are key to deploying a holistic As-a-Service infrastructure.

Customers	Vendors	Channel Partners	Employees	Extended Enterprise

SECURE INTEGRATION API

IoT Enabled Digital Consumption

Collaboration Platform (Customer Portal / Device Gateway / Partner Portal)

Product Engineering & Management
Product lifecycle management
Product design and development
Innovation development
Product portfolio management

Sales & Marketing
Lead & opportunity management
Product portfolio / Catalogue management
Dynamic usage based pricing
eCommerce based CPQ

Entitlements Management
Entitlement definition
Manage product usage rights
Support & Update Privileges
Entitlement reporting management

Data

Master data

Data warehouse

Business Process Management
Business rule engine
Process automation

Integration Layer
CPI Architecture
API Integration

Data Management
MDM
ETL

Usage data

Manufacturing and Supply Chain
Product manufacturing
Hardware fulfillment
Software fulfillment
Service fulfillment

After Sales
Renewal management (cross / upsell)
Customer succsess management
Professional services management
Incident / Field service management

Enterprise Functions
New Revenue Recognition methods
Converged invoicing
Sales compensation management

Invoice data

Ticket data

Ai Powered Analytics (Churn / Renewal)

3rd Party Cloud (i.e., Business Networks)

SERVICE DESK GATEWAY

Hosting Environment (Public to Private or Hybrid Cloud)

Key business function requirements for new technology and infrastructure

Product Engineering and R&D

A prerequisite for As-a-Service is that products are "connected" and the company can continuously track their usage. As a result, the technology architecture must be able to capture the essential operational performance data from the deployed products, and feed that data back to the company's R&D function to provide insights that can accelerate product releases and upgrades that align with customer requirements. Technologies like digital twin and digital thread play a pivotal role here by tracking products from their launch to end of life.

Sales & Marketing

Companies need to pivot from a "sales event" mindset to a "customer success" mindset that focuses on ensuring sustained product usage, surpassing customer expectations, and building strong customer relationships. The new technology must enable sales people to bundle hardware, software, and services to create an integrated offering for customers, as well as allow customers to configure own offerings with custom billing contracts and usage terms. Also needed are advanced CPQ features like guided selling, automated quoting, and intelligent approval workflows to minimize administrative overhead and allow sales reps time to have focused customer conversations to build more meaningful relationships. Finally, technologies must be in place to support new sales compensation structures aligned to new customer success metrics, as well as to enable a shift from demonstrations and proofs of concepts to self-service, fully functional solution trials that are key elements of a "land and expand" sales model.

Entitlements Management

Because an As-a-Service model facilitates the sale of offerings that are flexible, scalable, and personalized to meet customers' usage requirements, it must allow companies to offer multiple entitlement models from which customers can choose to suit their business objectives. Entitlements remain an integral part of an offering throughout its lifecycle, requiring a close monitoring across the fulfilment, billing, and after sales cycles. Hence, entitlements systems must be tightly coupled with e-commerce sales, order management, CPQ, billing, licensing, and provisioning systems to enable real-time analytics and reporting for actionable insights.

Billing

In an As-a-Service model, invoice accuracy and a single "convergent invoice" experience are extremely important to customer satisfaction. That's why the technology must be able to handle a high volume of complex, usage-based invoices that cover hardware, software, and services. While the choice of an appropriate billing process is up to the company, technology should support two major billing dimensions: billing type (fixed usage, tiered usage, subscription, etc.) and billing frequency (fixed, dynamic, or hybrid). The technology architecture may be further enhanced to accommodate additional options based on services rolled out over time.
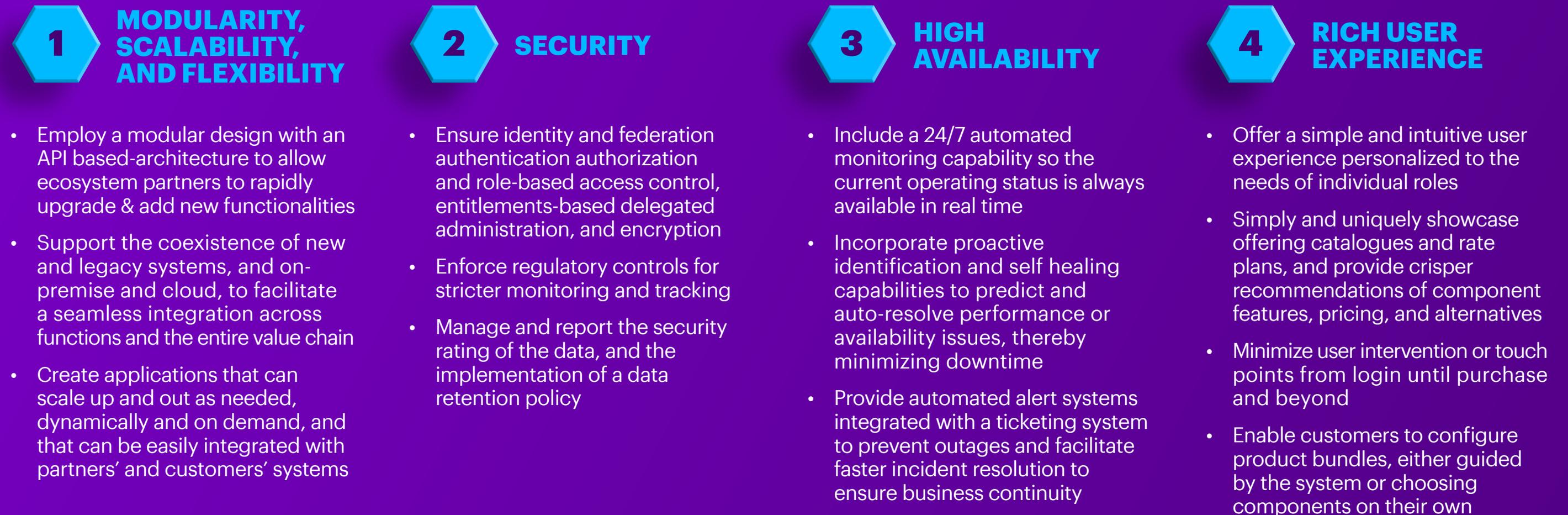
After Sales

The success of an As-a-Service model hinges on a high renewal rate to boost customer lifetime value. As a result, a robust renewals management system with strong AI and analytics capabilities, and that is tightly integrated with asset management tools, is key. It generates insights from customer data that the Customer Success Manager can use to proactively deploy the right customer retention strategies and to identify and capture cross-sell and up-sell opportunities. The new architecture should support complex renewals; handle quotes for new opportunities, add-ons, and renewals all in one place; simplify advanced approvals; and provide actionable insights on products and pricing.

Finance

While As-a-Service business models enable organizations to mine new revenue streams, it can be challenging to understand their impact on the revenue recognition process. As organizations navigate to As-a-Service, the technology and infrastructure must be able to support the new financial accounting processes that emerge from personalized pricing options and recurring invoice payments. Because invoice accuracy is of utmost importance to customers, automated invoicing systems with minimal billing errors and accounting discrepancies are required to avoid time-consuming reconciliations.

Four key considerations for technology enablement

When envisioning the new technology and infrastructure landscape for the As-a-Service business, companies should keep four important things in mind.

1 MODULARITY, SCALABILITY, AND FLEXIBILITY

- Employ a modular design with an API based-architecture to allow ecosystem partners to rapidly upgrade & add new functionalities
- Support the coexistence of new and legacy systems, and on-premise and cloud, to facilitate a seamless integration across functions and the entire value chain
- Create applications that can scale up and out as needed, dynamically and on demand, and that can be easily integrated with partners' and customers' systems

2 SECURITY

- Ensure identity and federation authentication authorization and role-based access control, entitlements-based delegated administration, and encryption
- Enforce regulatory controls for stricter monitoring and tracking
- Manage and report the security rating of the data, and the implementation of a data retention policy

3 HIGH AVAILABILITY

- Include a 24/7 automated monitoring capability so the current operating status is always available in real time
- Incorporate proactive identification and self healing capabilities to predict and auto-resolve performance or availability issues, thereby minimizing downtime
- Provide automated alert systems integrated with a ticketing system to prevent outages and facilitate faster incident resolution to ensure business continuity

4 RICH USER EXPERIENCE

- Offer a simple and intuitive user experience personalized to the needs of individual roles
- Simply and uniquely showcase offering catalogues and rate plans, and provide crisper recommendations of component features, pricing, and alternatives
- Minimize user intervention or touch points from login until purchase and beyond
- Enable customers to configure product bundles, either guided by the system or choosing components on their own

Embracing an As-a-Service model requires a complete rethinking of how the business operates. Furthermore, planning, implementing and operating all the required capabilities typically involves a highly complex business and technology transformation. Contact us to learn more about how Accenture can help you master this complexity and execute a successful journey to an As-a-Service business.

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