



# The Transformative **Enterprise Architect**

Building a Connected Business and driving digital transformation through a modern, holistic approach to integration

## Introduction

# Today's IT Architecture Requires a New Kind of Leader

In the digital economy, innovative businesses increasingly win with an agile enterprise architecture. You can't get ahead running rote operations with a disjointed IT infrastructure, fragmented workflows, ad hoc security measures, and poor visibility into customer needs.

### Instead, you need:

- Loosely coupled business process components that can be re-used and adapted as needed to meet changing business requirements.
- A single, comprehensive view of customers, including their transactions and even their social networks.
- Business transactions that are fast and frictionless from end to end.
- Integrated channels, so that a transaction initiated in a web browser can be completed in a brick-and-mortar location and confirmed on a smartphone.

To achieve these capabilities requires an agile enterprise architecture that integrates business-critical applications and services, making the most of key technologies such as mobile computing and the cloud, and creates a seamless whole from disparate IT systems and workflows.

You cannot build this architecture solely with IT investments made a decade ago. Most traditional monolithic applications running in on-premise data centers are incapable of supporting the agile, scalable, loosely coupled business processes needed today. In fact, those old applications — updated only every year or two or sometimes even less frequently — are miring organizations in outdated features and functions while competitors are innovating faster than ever.

Organizations need an enterprise architecture that keeps only the best of the old — a few key applications that still deliver best-in-class capabilities — while taking advantage of new technologies, design approaches, workflows and business models.

It is important to remember that consolidating applications and services into a single, master application is a much harder, more time-consuming and more expensive path than integrating or linking best-of-breed applications and services together.

Integrating a mix of old and new technologies, however, keeps people productive and operations running smoothly. It avoids interrupting operations for a massive overhaul that would inevitably drive up IT expenses.

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### Enter the Enterprise Architect

To pull all these applications and technologies together, organizations need a comprehensive vision, business savvy and a holistic enterprise architecture. Any company needs a thorough understanding of business objectives, strategies and tactics as well as management practices and organizational structures.

Businesses must develop practices that are focused on solving bigger problems than simply connecting isolated, siloed processes. And they require integration technologies that can quickly connect legacy applications, SaaS applications, mobile devices and IoT sensors.

This wide-ranging work needs a system mindset versus a segmental mindset. The job calls for an enterprise architect who understands business strategies and how to create IT infrastructures to support those strategies.

The result of the enterprise architect's work is not just architectural. It goes far beyond that, providing integrated business capabilities that support business strategies; improve customer insights; automate workflows; and, when linked to people and process, deliver competitive advantage.



# Obstacles to Achieving Transformative Enterprise Architectures

Here's a list of the common obstacles to creating agile enterprise architectures:

## Poor Data Management

- **Data silos**

In many enterprises, applications are still operational silos. They do the jobs for which they were purchased, but little more. Getting data into and out of them is difficult. In the era of the Connected Business, data silos are a hindrance to agility and efficiency.

- **Poor data quality**

Data — one of the most important assets of any business — is still patchy, error-prone and out of date in far too many organizations. More organizations could benefit from comprehensive Master Data Management, establishing authorized sources of record for each type of data.

Enterprises with data silos typically have trouble enforcing data governance policies (which, by definition, govern data usage and hierarchies across the organization) and implementing end-to-end transactions and agile processes.

## Complexity

- **Brittle, code-intensive integration**

Too many integration projects are code-intensive and resource-intensive efforts driven by IT to meet short-term needs rather than long-term business strategy. Because they're code-heavy, these projects are difficult to modify, maintain and troubleshoot. For example, an investment bank had invested heavily in custom coding.

Unfortunately, 80% of that code was dedicated to linking disparate systems. They missed the opportunity to create new business capabilities that would have supported the company's strategy and delivered a competitive advantage.

- **Workflows delivering little or no value**

While the operating models of businesses may differ — requiring different levels of process integration across business units — today's digital competition requires that organizations undergo an IT house cleaning. A legacy enterprise that has cobbled together systems and processes in an ad hoc manner year after year runs the risk of having its architecture eventually resemble a maze of rooms and blind hallways leading nowhere. Business processes may be running even when their output is no longer necessary. And the integrations that do exist are brittle, error-prone or incomplete. This can result in silos among business operations.

# Obstacles to Achieving Transformative Enterprise Architectures

Here's a list of the common obstacles to creating agile enterprise architectures:

## Transformation-Resistant Systems and Processes

- **Lack of digitalization and automation**

Without integration, critical processes often move far too slowly: think faxes, voicemail and paper forms. To achieve business transformation, organizations require digitization, which begins with a digital workplace.

Businesses that fail at digital transformation have one thing in common: they see technology as individual pieces to implement. These businesses are struggling with pervasive application sprawl and disconnected business silos. They see the trees but not the forest, the notes but not the melody. To envision the big picture, smart businesses call upon enterprise architects for help.

- **Closed systems and a lack of connections**

Modern organizations need to focus on IT building blocks. Building blocks fit with other building blocks, making it far easier to build something new and bigger. Lacking easy integration, many old systems and processes can't be used as modular components. Instead, they are monolithic, isolated systems. One of the first tasks for IT is to create a system of foundational components, so that new products and services can be built.



# Enterprise Architects: Guiding Application and Data Integration

Enterprise architects know that a successful architecture integrates all key applications, connecting disparate pieces of IT infrastructure into a fast, efficient whole.

Business advantage depends on the data and analytics being connected. The data output of one system must be ready to serve as the data input of another system. To achieve that level of organizational readiness requires integration and transformation.

Processes cannot be automated if a stack of papers waits on a desk, or a ZIP archive of Excel spreadsheets must be manually emailed, opened and stored.

To eliminate such inefficiencies and bring speed to an organization, digitization is a must. And data is the key to successful business transformation.

Businesses must invest in their data: in data collection, data quality and data integration. Organizations can no longer rely on long-running, hand-coded integration projects. Business goals and processes no longer change every decade. They now change continually in our agile, just-in-time, minimal viable product world.

Organizations cannot afford to rely on legacy data management tools, which might take years to implement while yielding minimal results. Rather, in this age of mobile apps and cloud services updated through frequent development sprints, integrations themselves must be agile, efficient and changeable.

When integration and enterprise architecture becomes fast, efficient and agile, organizations can transform their businesses to be fast, efficient and agile, too.

# Leading Digital Transformation

Enterprise architects need to be in the middle of their organizations' digital transformation plans. Applying both technical expertise and business know-how, they can guide their organizations through the transformation process: improving customer experience, increasing operational efficiencies, ensuring business continuity and freeing the organization to redefine its business.

The end goal is a modular business architecture, which allows the organization to manage and reuse loosely coupled business process components. Such a modular approach helps businesses respond effectively to fast-changing market pressures, competitive opportunities and intensifying regulatory requirements.

## **The new enterprise architecture should provide:**

- Technical capabilities that support bi-modal operations, keeping both existing commerce operations flowing while supporting the creation, testing and implementation of new business models.
- Strategic business process integration with plug-and-play, reusable business process modules.
- Support for cross-departmental coordination, especially in the area of DevOps.
- End-to-end processing of transactions.
- Data governance, ensuring data consistency for customers, suppliers and employees.
- Traceability that ties together business strategies, business services, operational processes and organizational capabilities.
- Support for standardization and improved regulatory oversight.
- Speed to market (strategic agility).

# Enter the Connected Enterprise in the Cloud

In the digital era, competitive advantage comes from an established set of business capabilities that, when integrated, deliver something extraordinarily powerful — a whole greater than the sum of its parts. We call this integrated whole the Connected Business.

A Connected Business integrates its capabilities more thoroughly and seamlessly than competitors do, gaining efficiency and agility as a result. The Connected Business succeeds in executing digital transformation plans that other organizations can only idealize.

How can an organization achieve the seamless, enterprise-wide integration needed for realizing this competitive advantage?

Many vendors promise easy, fast point-to-point connections for achieving digital transformation. The reality, however, doesn't match the hype. As long as businesses are taking a point-to-point approach in connecting applications and building services, they will be disappointed.

What business leaders need is a holistic integration approach that can bring together people, processes and technology investments.

## **A Connected Business must be able to do four things:**

- **Connect Everything**  
The business connects everything from best-of-breed cloud apps, on-premise legacy systems and data stores all the way down to people and smart devices. First and foremost, businesses need a complete fabric of connectivity that spans the globe.
- **Engage Everywhere**  
Businesses must automate their business processes and deliver an engaging experience to customers, employees or partners through whatever channels and whichever devices they choose.
- **Run Anywhere**  
Businesses need a flexible architecture that can accommodate business logic and services running anywhere, so that business value and performance determine the architecture, rather than the architecture limiting results.
- **Adapt at Will**  
Most importantly, Connected Businesses invest in integration platforms and other technologies to ensure that they can adapt their business models and strategies at will. Businesses need integration platforms that support any kind of IT architecture, regardless of whether IT resources are federated, centralized or decentralized.



# How Boomi Helps Deliver the Connected Business

The Boomi integration platform delivers the industry-leading integration and data management capabilities enterprise architects need for realizing their vision of the Connected Business. The Boomi platform provides:

- **Agile, low-code integration**

Boomi provides a low-code development environment that comes with more than 50 ready-to-use application connectors, supporting connections to more than 1,000 unique endpoints. Where connectors exist, nothing has to be built. If new connectors need to be created, teams can build integrations in hours or days, rather than the weeks or months required by legacy systems and custom coding.

Boomi is so intuitive that non-technical employees can develop integrations, freeing IT engineers to work on more strategic projects.

- **Data Governance through Master Data Hub**

Data from multiple sources requires data governance, data stewardship and the application of data quality rules to fix errors and inconsistencies. Boomi provides a central Master Data Hub with a single connection per system, implementing data stewardship, data governance, and data quality rules and creating synchronized master data, creating a single source of truth across the data ecosystem.

- **Mediation for both legacy and new applications**

Boomi's design and API management capabilities make it possible for businesses to unlock data from existing legacy systems for easy consumption by new applications.

With Boomi Mediate, enterprises can configure APIs through a visual web-based interface, deploy APIs with comprehensive security and authentication, and monitor APIs through a visual traffic control and usage dashboard. Boomi Mediate helps businesses connect new systems to legacy systems, enforces data governance on data flows, and engages with trusted third parties through APIs connecting to critical business processes.

# How Boomi Helps Deliver the Connected Business

- **Agile support for EDI and other trading partner networks**

Boomi supports data exchange with partners, including third-party logistics (3PLs) companies, using traditional EDI standards and protocols as well as newer web services to streamline and accelerate business interactions.

Boomi Exchange support facilitates data exchange with partners through our self-service EDI service. Because the EDI service runs on the same platform as other Boomi integrations, integrating EDI with other business applications, such as ERP systems, is far easier than with traditional tools.

- **Workflow automation**

Boomi offers a low-code workflow automation and app development environment called Boomi Flow. Using a drag-and-drop interface, enterprise architects can easily create an enterprise architecture that puts together business processes/capabilities to connect people more efficiently and support long-running processes.

- **Operational intelligence**

Boomi delivers operational intelligence derived from engaging customers and employees at every distribution layer of technology — whether in the cloud, on-premise, in a hybrid environment, or even with IoT devices at the network edge. With all applications and data together in a unified platform, managers gain a 360-degree view of their business with insights to address critical business problems.

- **One integration per source**

Historically, integrations were built one integration at a time, with no thought to the management implications as new point-to-point integrations were added.

The result was a mess of spaghetti connections. With Boomi, instead of extending system sprawl, organizations can design the architecture of all their integrations, creating one-to-many connections to key applications and data while consolidating management to discrete workflows and business process. This ability to organize your integrations dramatically reduces maintenance costs.

## How do these capabilities help enterprise architects lead digital transformation initiatives? In these ways:

- **Boomi helps you connect everything**  
Boomi connects applications, APIs, microservices, EDI services, IoT devices and more. It's a universal integration platform for the enterprise.
- **Boomi helps you engage everywhere**  
Through Boomi, enterprises can engage more quickly and effectively with customers, partners and employees. Boomi integrations and workflows can optimize every human-machine interaction an enterprise depends on.
- **Boomi frees you to run everywhere**  
With patented Boomi Atom technology, you can deploy your applications wherever it makes the most sense for a specific architecture: in the public cloud, private cloud, hybrid or on-premise. A run-time Atom can be deployed on devices as disparate as a jet engine or a Nest thermostat.
- **Boomi adapts so you can adapt, too**  
The Boomi platform adapts quickly to changing business requirements. Its low-code interface shortens development cycles. Its ready-to-use connectors and contributed processes and templates from the Boomi Community further accelerate integration and workflow development.

- **Using Boomi, enterprises can respond** more quickly to business opportunities and competitive threats. Designed to support agile development practices, Boomi helps make organizations themselves more agile.

### In addition, the Boomi platform offers these benefits:

- **A low total cost of ownership** that is possible only with a cloud-native platform.
- **High availability** from an auto-healing, auto-updating platform with 99.99% uptime.
- **Process efficiency**, with features like the customer-contributed Boomi Process Library and the Boomi Community, so enterprises can leverage the best practices of Boomi's 7000+ customers and partners.
- **Fast time-to-value**, which is demonstrated by Boomi's ability to take customers' greatest challenges and spin up integrations faster and better than any other vendor.
- **Boomi provides the critical capabilities** that enterprise architects need for achieving digital transformation, delivery revolutionary operation efficiencies, deeper customer insights and greater organizational speed.



To learn more about how Boomi can help you improve integration across your enterprise, please contact our integration experts today  
<https://boomi.com/company/contact/>



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