The Integration Checklist for Cloud Migration

Best Practices to Avoid the Modernization Chokepoint

boomi

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It's a Cloud World

In business today, organizations broadly fall into three categories:

1 They've moved critical operations, workloads, and data into the cloud.

2 They're in the process of moving systems into the cloud.

3 They're contemplating the transfer of business functions into the cloud.

As the focus grows on the bottom line, businesses are shifting from costly on-site data centers to the tangible, real-world advantages of the cloud. Those benefits include simplifying IT architecture, eliminating infrastructure, and greater flexibility, elasticity, and accessibility of business processes.

For example, consider the pandemic. Virtually overnight, the crisis upended business operations as workforces became remote out of necessity. Cloud computing enabled employees to perform their jobs from anywhere, at any time, and continue satisfying customers. Microsoft CEO Satya Nadella famously said the company had "seen two years' worth of digital transformation in two months" as cloud adoption exploded.

The pandemic served as a catalyst that accelerated a business trend already spreading with viral speed. That's why today, companies are well into their digital transformation journeys – or they're getting left behind.

Gartner says more than 85% of organizations will embrace cloud-first strategies by 2025, and businesses will struggle to execute without relying on cloud-native architectures and technologies. "There is no business strategy without a cloud strategy," said Milind Govekar, a Gartner distinguished vice president.

IDG company Foundry determined in its 2022 Cloud Computing research that 69% of organizations accelerated their cloud migration in the previous 12 months, and the percentage of IT infrastructure in the cloud would leap from 41% to 63% over the next 18 months. That's because businesses "are defaulting to cloud-based services when upgrading or purchasing new technical capabilities."

85%

of organizations will embrace cloud-first strategies by 2025
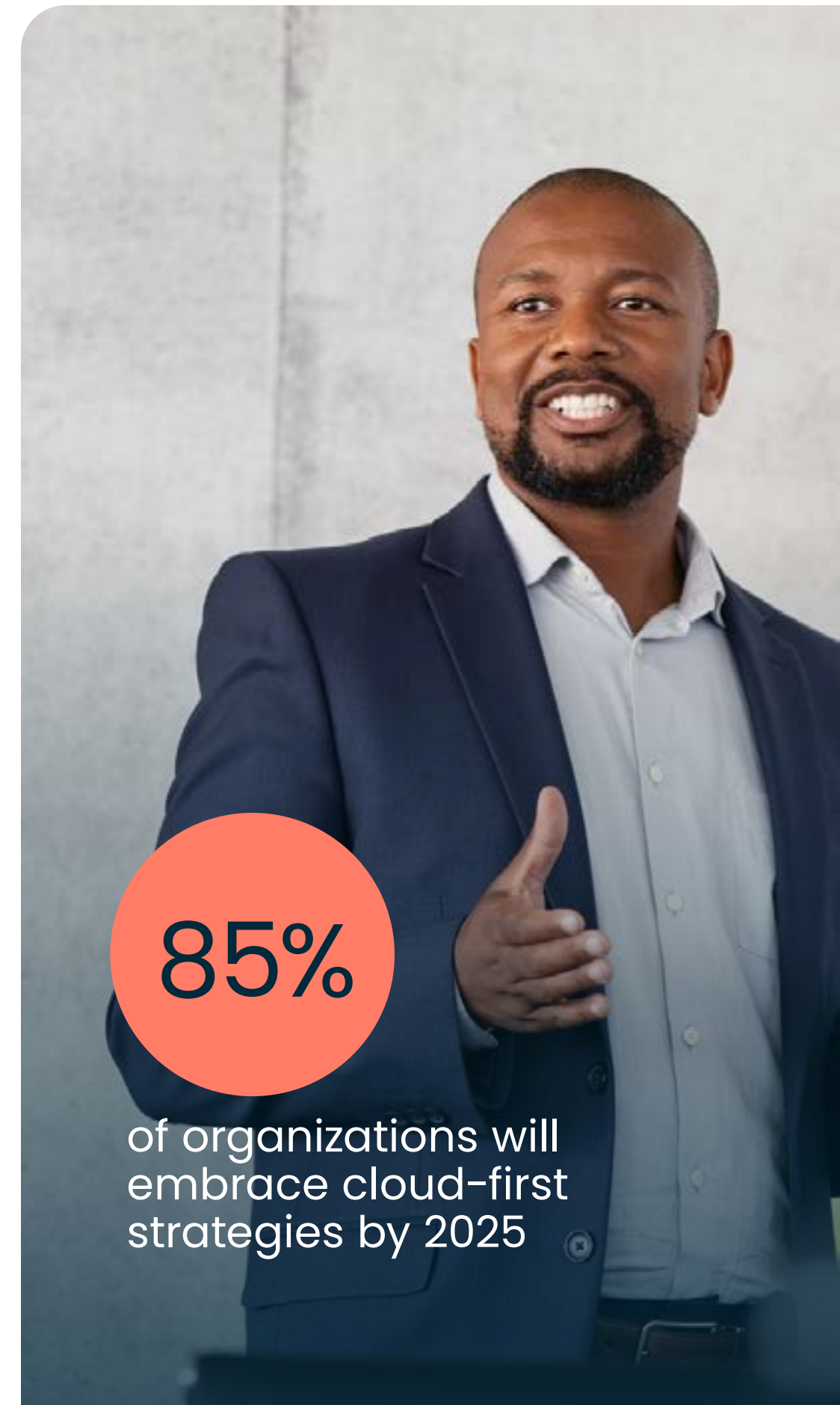
McKinsey predicted that $8 of every $10 for IT hosting will go toward cloud-based services by 2024. But there was a caveat. McKinsey also found $100 billion in wasted migration spending also would occur.

So, let's define what we're discussing here.

Cloud migration is a heavy lift. Migrating critical business operations is complex, time-consuming, and fraught with potential pitfalls. You're taking some of your organization's most foundational systems (enterprise resource planning, customer resource management, HR management platforms, etc.) and putting those digital assets in a new place.

The stakes are high. Maybe the cloud is still a relatively new experience for your business. You might be satisfied with some parts of your on-premises IT environment. You have concerns about security and control.

Then, there's this essential question: **How do you connect everything?**

The Achilles heel of cloud migration success is interoperability. How do you get systems to work together cohesively? This "modernization chokepoint" is a challenge for businesses with operations in the cloud and others remaining on-premises. It's also at the root of the wasted cloud migration spend that McKinsey identified.

There is no perfect migration path to run the software from a cloud with modern architecture. Once you start, it will be an ongoing, evolving process. We designed this guide to help you create a thoughtful strategy that mitigates risk, and avoid common pitfalls.

Cloud migration is the movement of digital business processes, workloads, and applications from traditional onsite data centers into cloud-based platforms. It can also describe transferring those functions from one cloud environment to another.

10 Reasons for Migrating to the Cloud

1 Reduce operational burden by eliminating hardware and infrastructure

2 More flexible pay-for-what-you-use model

3 Fewer headaches as cloud providers handle maintenance responsibilities

4 Free up IT staff for more valuable projects around innovation and growth

5 Distributed performance boosts speed by moving workloads closer to where needed

6 Redundancy of multiple data centers ensures less downtime

7 Scalability and elasticity to cope when added computing power is needed

8 Agility and speed to get applications up and running quickly

9 More workload types because clouds offer specialized services

10 Eliminate talent shortage of people to maintain legacy data centers

> **The cloud is seen as the promised land. But cloud migration must be approached thoughtfully, strategically, and only in ways that make sense for your business. If you're not careful, you'll find yourself stuck in a modernization chokepoint."**

Ed Macosky
Chief Product Officer, Boomi

Cloud Migration Checklist

- ☐ Understand Why You're Moving To the Cloud
- ☐ Take Stock of Your Current IT Ecosystem
- ☐ Define Your "Center of Data Gravity"
- ☐ Evaluate Cloud Environments
- ☐ Decide the Migration Model That Fits Your Business
- ☐ Set Expectations Around Cost
- ☐ What Are Your Timelines?
- ☐ What's Your Integration Strategy?

Understand Why You're Moving To the Cloud

"Just because" is not a good reason for moving to the cloud. Maybe there's a directive from your C-suite. But "the cloud" itself is not a strategy. What are the intended benefits and the expected results? That requires peeling back the onion to understand the "why."

Do you want to take advantage of services offered by hyperscalers like Amazon Web Services (AWS), Microsoft Azure, or Google Cloud? Is it to get the most from innovative, best-in-breed applications? Is it risk mitigation, reliability, performance, or cost reduction? Maybe sustainability is a priority to lessen the carbon footprint of powering an on-premises data center.

While you may have several goals, there's likely one specific objective driving the initiative. Once focused on a strong business case, you can assemble the migration team to plan the roadmap.

Take Stock of Your Current IT Ecosystem

Accounting for all systems, applications, and data in your digital architecture is complicated. You might not know what systems teams are running without IT oversight – aka "Shadow IT" – which can also compromise security. Determine who uses what to avoid migration surprises.

Once you've figured out your digital portfolio, you can address the question: What applications should stay, and what should go to the cloud?

The cloud might be the preferred option for modern systems and applications, but that doesn't mean it's best for all deployments. Some things may need to stay on premises, such as high performance computing (HPC) workloads which require low latency to quickly process high volumes of data, or highly sensitive data that must meet specific regulatory, security, and/or governance requirements. The cost of running certain applications in the cloud can grow exponentially over time, which will be another factor to consider.

Define Your "Center of Data Gravity"

Businesses are like snowflakes. Their digital needs are unique – and constantly changing. But you must decide where your data gravity should be.

Data gravity is the concept that large datasets – similar to planets – tend to bring smaller datasets, applications, and services into their orbit. Workloads and data volumes operate more efficiently when they are in closer proximity. If not, latency (the delay before data transfer begins) becomes a performance issue. But the "heavier" the dataset, the more complex the migration. That's why it's one thing to say you want to be a cloud-first business and another to make it happen.

It echoes back to the "why" question. Which workloads make sense in the cloud? Suppose the goal is to rely on software as a service (SaaS) and the public cloud hyperscalers. Your gravity will naturally shift away from your in-house data center. Or perhaps you're taking small steps on a cloud migration journey and your center of data gravity will remain on premises. Then, your gravity will gradually shift as SaaS becomes more prominent and attracts supporting applications.

It's critical to understand why you're moving something (does it make sense?), and to put in place the proper data governance for the migration.

Evaluate Cloud Environments

Moving to the cloud is not one-size-fits-all. But what exactly does that mean for your business? The destination of a cloud migration falls into one of these buckets:

PUBLIC CLOUD: Hosted and managed by third parties – typically the hyperscalers. Businesses share resources with other customers and have easy access to services and scalability. Also, the big cloud providers often offer better, more efficient security.

PRIVATE CLOUD: A proprietary cloud that serves a single business to customize for an organization's needs. These are often seen in highly regulated industries and offer the highest level of control.

HYBRID CLOUD: A blend of on-premises, public cloud, and private cloud that offers both flexibility and control. This best-of-all-worlds concept is popular with larger organizations that must protect sensitive data while making other high-volume processes publicly available. Also, businesses often prefer to use multiple cloud vendors to prevent having all their digital eggs in one cloud basket.

Decide the Migration Model That Fits Your Business

As you explore cloud migration strategies, you'll become familiar with the "R's." You can move systems and processes into the cloud in these different ways. There are pros and cons associated with each. It depends on what makes the most sense for your business from a time, cost, effort, and benefits standpoint.

Seven common 'R' strategies are outlined on the next page.

Seven Common Cloud Migration "R" Strategies

We have ordered these strategies from simplest to most complex to help you determine the level of effort your migration may involve.

1. **RETIRE**. One benefit of cloud migration is assessing what systems and services have outlived their usefulness, serve no crucial purpose, and are ready for decommissioning.

2. **RETAIN**. When it makes sense to keep applications where they are – at least for now. (That's why "retain" is sometimes called "revisit.") Systems can be too critical to move or migration benefits won't be apparent until your data gravity shifts from on-premises to the cloud.

3. **REHOST**. Also known as "lift and shift" because it's a relatively effortless form of migration by moving a copy of data infrastructure onto the cloud. But a more straightforward migration also may sacrifice the option of restructuring systems to work with newer, cloud-native technologies.

4. **RELOCATE**. Similar to rehosting in that the same software stack runs on AWS rather than on-premises, with no need to purchase new hardware. This method is common for businesses that use VMware tools and need to migrate quickly.

5. **REPURCHASE**. This involves moving away from on-premises applications to new SaaS systems. One example of what's also known as "drop and shop" would be eliminating a legacy system by purchasing a subscription to cloud-hosted Salesforce.

6. **REPLATFORM**. This adds an element of "tinker" to the "lift and shift" idea. Some infrastructure changes are made during the migration to optimize the architecture for cloud-based systems.

7. **REFACTOR**. You re-architect your infrastructure for a cloud environment. This requires the most engineering development, testing, and deployment planning. The benefit is taking complete advantage of agility, scalability, and performance to accomplish objectives unattainable in a legacy environment.

Set Expectations Around Cost

There are many benefits to moving to the cloud. Cost reduction might be one of them, but that's not guaranteed.

As a rule, running systems in the cloud is cheaper than in a data center. It's certainly true for a young company to compete in the marketplace quicker and more cost-efficiently by operating in the cloud rather than trying to spin up its own expensive data center. The question becomes more complicated when established companies move to the cloud.

Savings are associated with getting out of the data center business and eliminating hardware, energy, and maintenance costs. But some significant portion of the money saved under traditional IT capital expenditures is moved to a different part of the accounting ledger under cloud operation expenses.

The potential for savings comes in how efficiently you use that new cloud environment and take advantage of the flexibility, scalability, and more. Like everything in business, it all depends on planning and execution.

What Are Your Timelines?

You're facing some deadline. Maybe your C-suite wants to get a cloud migration project launched this fiscal year or before some critical infrastructure is due to be deprecated. Whatever the time pressures, here's the reality:

Migrating workloads to the cloud likely will take longer than you expect.

It's not just that the number of moving parts is immense. Migrating an enterprise resource planning system, for instance, to the cloud is hardly the endgame. Then comes connecting that critical system to the countless supporting applications. Those integrations take time if you rely on legacy connectivity tools designed for an on-premises world.

What's Your Integration Strategy?

Integration is the linchpin of cloud migration success. Ensuring all systems can seamlessly share information is how you get the maximum value of investments. Depending on the best integration tool to maintain a web of connectivity throughout your entire digital architecture becomes more critical than ever.

Consider what must be interconnected:

- Public/Private clouds
- On-premises systems
- SaaS applications
- Edge devices

Integrating a complex and constantly changing architecture depends on many factors. But without a tool that quickly connects everything, moving to the cloud will fragment your digital architecture and create more data silos – not help it become more cohesive.

The Boomi Integration Advantage

Boomi solves the root problem of the "modernization chokepoint" – poor connectivity. The cloud-native, low-code Boomi platform instantly connects everyone to everything, anywhere. Boomi increases speed, minimizes complexity, and reduces costs to accelerate successful cloud migration initiatives through intelligent integration and automation so you can achieve remarkable outcomes.

The Boomi platform supports all integration patterns and every cloud migration strategy – all of the "R's." Boomi offers the best of all worlds by linking every system together wherever they reside, cataloging all existing systems, migrating desired workloads quicker, and archiving retired systems.

10 Ways That Boomi Ensures Cloud Migration Success

1 Trusted advisor

2 Speed of implementation

3 Meets hybrid deployment requirements

4 Vendor-neutral

5 Single platform experience

6 Enterprise-grade

7 Confidently self-managed

8 Transparency and control

9 Largest integration user community

10 Boomi Managed Cloud Service

Here's a deeper look at how Boomi helps ensure cloud migration success:

1 **TRUSTED ADVISOR**
As the leader in intelligent integration and automation, Boomi has a proven track record of helping companies make the best decisions for their businesses when it comes to deciding what migration strategy works best for their operations and objections. Which of those "R's" is right for your business? Boomi can show you – and make it happen – because we've seen every possible configuration.

2 **SPEED OF IMPLEMENTATION**
The platform is built for the cloud and provides faster connectivity with configuration-based integrations. Forrester's research found that Boomi reduces integration development time by 65%. That eliminates the need for your expensive IT talent to focus precious engineering hours on hand-coding and maintaining connectors or to learn new cloud-based systems' security and access functionality. Pre-built connectors and crowd-sourced mappings based on the knowledge from developers who performed the same integrations boost time to value. Ease of use reduces integration timelines from months to weeks, days, and sometimes even hours.

3 **MEETS HYBRID DEPLOYMENT REQUIREMENTS**
Boomi's single instance, multi-tenant architecture ensures systems stay connected and synchronized wherever they are. Cloud migrations require flexibility because critical systems likely will reside in different environments. You may have one technology foot firmly rooted in on-premises systems with the other in the cloud. You can quickly adjust as circumstances change and if it becomes appropriate to retire or migrate technologies. Boomi's runtime engines for integration sit wherever you need them, whether in the cloud or behind the firewalls of an onsite environment. You leave no IT system behind by connecting multiple generations of technology.

4 **VENDOR-NEUTRAL**
Boomi doesn't lock customers into any particular ecosystem. Our independent, open platform provides businesses total flexibility to run their operations as they see fit by supporting all public clouds and connecting more than 300,000 unique endpoints – on-premises, SaaS, and in the cloud. Boomi quickly moves data between cloud vendors, foundational ERP systems like SAP and Oracle NetSuite, and other SaaS applications. Boomi conforms to any business requirements.

5 **SINGLE PLATFORM EXPERIENCE**
Boomi is a one-stop shop for a comprehensive suite of services to control, move, and scale processes. One repository integrates with any system to eliminate the time and expense of multiple tools needed to manage trusted data. The broad spectrum of services within the platform ensures the same user experience to:

- Discover, catalog, and prepare data
- Enrich and synchronize data to create "golden records"
- Securely scale and manage APIs
- Design, build, and simplify endpoint integrations
- Manage EDI partner networks
- Automate workflows and build applications

6 **ENTERPRISE-GRADE**
Boomi provides the scalability, security, and reliability you expect to mitigate risks and provide control during cloud migrations. The platform meets the highest governance and compliance standards, including HIPAA, PCI, ISO 27001, and FedRAMP authorization. Boomi also has the industry's best uptime, so your integrations can always be trusted to work.

7 CONFIDENTLY SELF-MANAGED
Boomi automatically handles upgrades and maintenance, giving you access to the platform's latest and greatest. Boomi's self-managing, self-learning, and self-scaling capabilities mean the platform runs itself. You focus more on innovation and less on manual operations. Optional regression testing ensures your integrations will continue working with updates.

8 TRANSPARENCY AND CONTROL
You have visibility into monitoring, logging, and deploying to know what's happening with your systems and data integrations. Centralized control reduces risks associated with migrations and results in a lower total cost of ownership.

9 LARGEST INTEGRATION USER COMMUNITY
The Boomiverse consists of 100,000+ like-minded business professionals who discuss best practices, ask questions, and stay on top of trends.

10 BOOMI MANAGED CLOUD SERVICE
Enjoy Boomi's full power and flexibility with the convenience and confidence of a fully hosted service without managing integrations yourself.

"In these economic times, the bottom line matters. CIOs are looking closely at their budgets and making hard decisions. They're moving workloads to the cloud that make sense but keeping some legacy systems on-premises because they're not broken and don't need fixing. That's where Boomi comes in, because we're a bridge. You can connect systems across a blend of cloud, hybrid, multicloud, and on-premises environments."

Ed Macosky
Chief Product Officer, Boomi

Success Stories

BARRY UNIVERSITY

THE BACKSTORY

At Miami-based Barry University, the school's technology slowed every step of the student lifecycle – from recruitment to admissions to campus experience to alumni engagement. Officials and students had trouble accessing basic information like transcripts and financial aid records because systems didn't talk to each other. For instance, an on-premises ERP didn't connect with a decades-old student information resource or a portal that serves as the starting point for admissions. Also, during hurricane season, the university often had to shut down because systems couldn't run remotely.

HOW IT WORKS

Boomi helped Barry University embrace a cloud-first strategy that modernized every aspect of the school's IT processes and provided the school the agility to cope with the unexpected. Boomi connectivity enabled the college to roll out Salesforce Sales Cloud as its first CRM system and replace a legacy ERP with Workday Financial Management. More than 180 integrations connect those and the student information system with other best-in-breed applications.

THE BOTTOM LINE

Barry University now has a 360-degree view of prospective students, current students, and alumni. The school saw a 48% increase in the conversion of prospective students into applicants. Boomi automation reduced the decision-making process for applicants from a month to five days. The school's digital architecture also was resilient enough to deal with a crisis worse than a hurricane – the pandemic. The school converted all on-campus operations to remote and facilitated distance learning in one week. The platform later played a pivotal role as the school shifted to hybrid learning and finally a reopened campus.

WHY BOOMI

"If you still have people running from office to office with pieces of paper or sending emails with Excel spreadsheets, my advice is to create an integration practice. Integrations are the first pillar before you think about any digital transformation."

Hernan Londono
Associate Vice President of Technology and CTO, Barry University

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Blog Post ▸

riverbed

THE BACKSTORY

Leading IT vendor Riverbed Technology urgently needed to upgrade its antiquated integration capabilities to embrace a cloud-first strategy to embrace the flexibility offered by SaaS applications. The legacy, on-premises TIBCO system wasn't scalable or easy to manage for the quote-to-cash process. Meanwhile, because more than 90% of Riverbed's business is partner-sourced, the company needed a more functional EDI system to integrate new partners into its ecosystem faster to reach more potential customers. After evaluating MuleSoft and TIBCO's cloud-hosted products, Riverbed chose Boomi.

HOW IT WORKS

Riverbed now manages over 130 integrations (about 80 internal applications and 50 EDI partner connections) with Boomi. Riverbed's partner onboarding speed doubled while data reliability and consistency improved across the order-fulfillment process. Faster quoting enhanced customer experiences, increased revenue, and allowed sales reps to prepare quotes previously so complex they needed to be handled by sales operations experts.

THE BOTTOM LINE

Boomi reduced the quote-to-cash process from seven days to less than eight hours. Today, nearly 70% of Riverbed's technology stack is either in SaaS or the cloud – reducing maintenance and operations costs while setting up the business for the future. Boomi also reduced total ownership and technical debt costs by eliminating the on-premises system and the need for specialized TIBCO skills.

WHY BOOMI

"If your end state is to adopt SaaS and the cloud, you need to make sure you can orchestrate every change. That's why you need to pay attention to integration. Having a flexible integration framework helps facilitate every other migration you do. Don't let it be on the side. Integration needs to be a prerequisite."

Bhishma Jani
Vice President of Information Systems, Riverbed Technology

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Case Study ▶

THE BACKSTORY

As business analytics company Qlik became a technology powerhouse, the company needed to integrate systems faster to keep pace with the company's growth. Lack of connectivity also held back the company's modernization efforts around cloud migration. Qlik needed help integrating critical cloud-based business systems, including Salesforce Sales Cloud and NetSuite for ERP management. Qlik evaluated several integration vendors, but only Boomi met the criteria for cloud-native multi-tenancy with automated product updates.

HOW IT WORKS

Boomi's low-code platform reduces Qlik's integration development time. The flexibility of Boomi to deploy multiple lightweight runtime engines known as "Atoms" to form high-performance clusters of "Molecules" gives the business the high availability it

needs. Boomi also orchestrates the pricing, configuration, and quote processes by managing the APIs connecting Salesforce and NetSuite. Additionally, Boomi improved employee onboarding by integrating Qlik's Workday application to ServiceNow and the company's analytics software to automate employee provisioning to Microsoft Active Directory, NetSuite, and Concur.

THE BOTTOM LINE

As Qlik built integrations 5x faster, the business scaled up to 40 integrations across the enterprise. Boomi's ability to spin up APIs helps external vendors use Qlik services quicker and more seamlessly. Qlik doesn't have to worry about falling behind its growth pace again because Boomi automatically keeps the business current with the latest technical innovations related to integration and data management.

WHY BOOMI

"Boomi has become our go-to for integration. It isn't just another tool – Boomi is our mission-critical tool for connecting data and applications in a fast-growing environment."

Theodore Sager
Director of IT Automation, Qlik

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Case Study ▶

Your Next Steps

Cloud migration is a digital modernization journey where you never actually "arrive" at your destination. There's no end because your business goals and needs constantly evolve as your requirements change.

Companies today rely on a dizzying number of applications and services across digital environments. Cloud migration adds to that complexity. Effectively integrating everything is critical for businesses to simplify their architectures, realize their ambitions, and create the experiences impatient customers demand. And it has to be accomplished with speed, flexibility, scale, and reliability.

As you think through your next steps, Boomi Chief Product Officer Ed Macosky offers this advice to ensure a successful cloud migration:

1 ANSWER THE "WHY?" QUESTION. Know why the organization is moving critical operations to the cloud. Migrating to the cloud because of a directive from the board or C-suite is not a good answer. Understand the concrete business objectives, and make that your North Star.

2 CONSTRUCT A GOOD PLAN. Thinking through the cloud migration journey means bringing together stakeholders throughout the business to create a roadmap that addresses everyone's concerns. What kind of cloud model works best for you? What operations should migrate now, and what can stay where they are? What benchmarks will represent success?

3 EXPLORE TECHNOLOGY SOLUTIONS. You'll be evaluating cloud providers, of course. But don't forget to do your homework on an integration platform that enables you to connect systems throughout your entire digital ecosystem.

4 START SMALL. You can risk "analysis paralysis" by trying to perfect everything for weeks and months. Look for quick-win projects where you can show immediate ROI, demonstrate the business value, and learn from that experience.

5 PAUSE, RE-EVALUATE, THEN SCALE. Once you've had that initial success, take a breath. That's hard because you want to move as fast as possible and build off those early deployments. But take a step back and make sure your plan to scale is reasonable, responsible, and cost-effective. You'll save yourself headaches down the road.
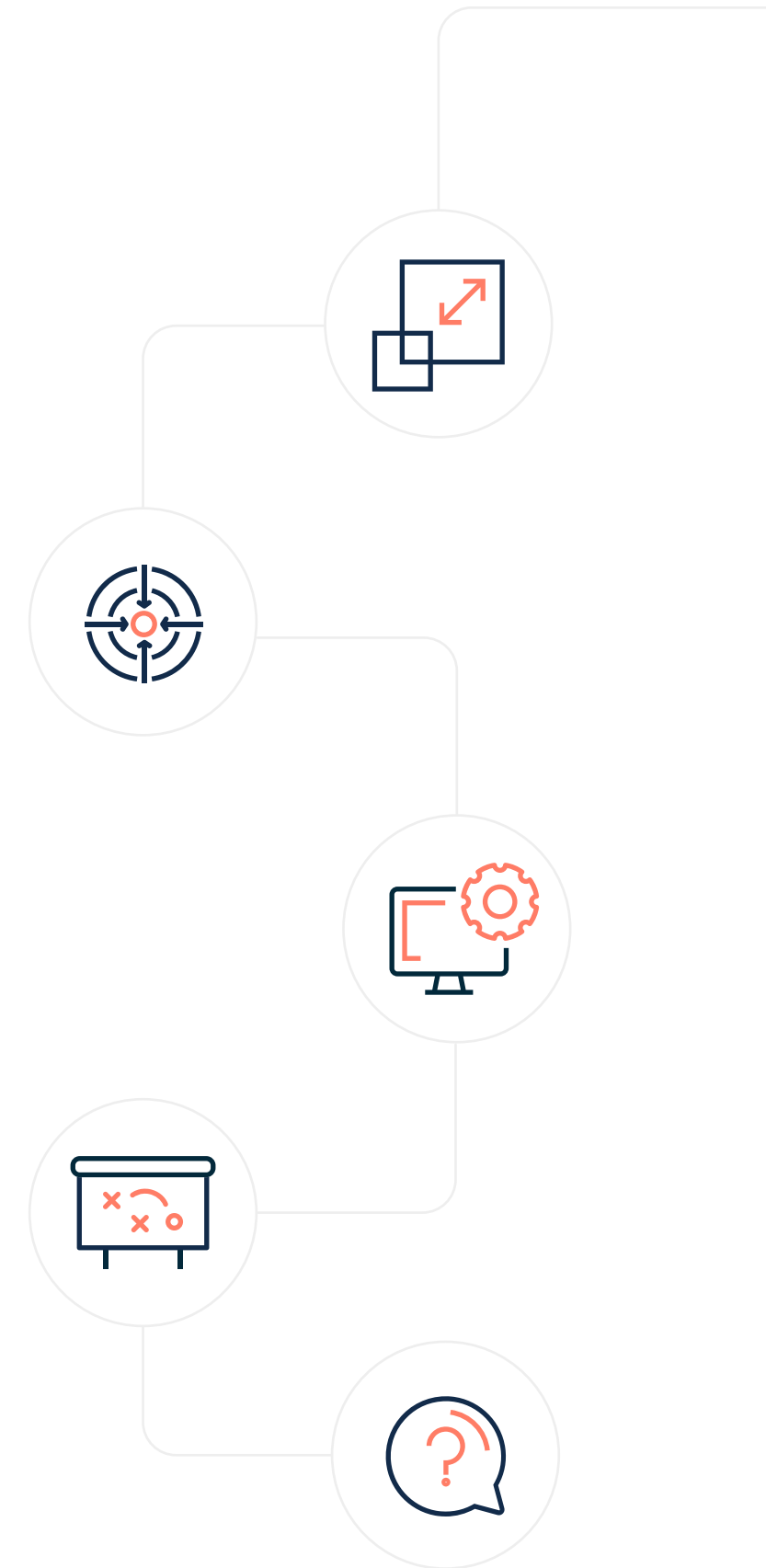
boomi

ABOUT BOOMI

Boomi aims to make the world a better place by connecting everyone to everything, anywhere. The pioneer of cloud-based integration platform as a service (iPaaS), and now a category-leading, global software as a service (SaaS) company, Boomi touts the largest customer base among integration platform vendors and a worldwide network of approximately 800 partners – including Accenture, Capgemini, Deloitte, SAP, and Snowflake. Global organizations turn to Boomi's award-winning platform to discover, manage, and orchestrate data while connecting applications, processes, and people for better, faster outcomes. For more information, visit www.boomi.com.