

WHAT'S DRIVING CAPITAL MARKETS TO CLOUD?

A decorative graphic consisting of two overlapping chevron shapes pointing to the right. The top chevron is green and the bottom one is blue.

Among Accenture's clients, capital markets institutions have been some of the more cautious cloud adopters. However, several factors are driving today's capital market firms to move their applications and data into the cloud as they reassess the business opportunities. These factors include:

- Increased agility
- Access to disruptive technologies that enable innovation
- Technology operating efficiencies
- Reduced infrastructure costs

Challenges in the Cloud: A complex risk, regulatory and compliance landscape

For banks, the journey to cloud means navigating a challenging risk, regulatory and compliance landscape. Regulators are now more informed and engaged, but the regulatory landscape still varies from region to region. Multiple internal functions and teams are involved in cloud approvals at most banks, which creates a complicated tapestry of stakeholders. In addition, banks considering an off-premise cloud transition must wrestle with material considerations relating to data, architecture, system interfaces and IT security, among other critical elements.

Capital markets firms are under no illusions about the scale of their challenges in an environment of low interest rates, narrow margins and increased capital requirements, and they are seeking ways to simplify and innovate. At the same time, economic conditions have heightened innovation and increased pressure on time to market.

Within our own engagements, we're seeing a number of investment banks honing their focus on cloud adoption to address legacy technologies, operate in an unpredictable economy and modernize their IT landscapes. They're seeking a total cost of ownership commensurate with corporate revenues—but this is not simply a cost play. For many capital markets firms, cloud is a revenue-enablement play as historical IT constraints on speed of provisioning and compute and storage limitations are removed. This provides a new level of analytic capability.

As one example, [our research](#) shows capital markets institutions embracing cloud with greater enthusiasm as part of a broader strategy to adopt a proactive, fluid approach to risk management. In addition, forward-looking firms that turn to public cloud solutions are rapidly discovering previously unexpected advantages, such as heightened security.

Public or private? there's no uniform solution

Levels of public cloud adoption among banks vary widely—from none at all to early proof of concepts to a few production workloads on the public cloud. However, public cloud adoption within large, global institutions suggests the debate over public is over, and that it will be part of the fabric of investment banks going forward. According to the research, six in ten¹ capital markets institutions say cloud-based entrants will challenge traditional business models. The question for those operating within capital markets is how quickly they will be able to respond—particularly considering the complex legacy architectures on which many large banks still rely.

Most investment banks that are looking toward a cloud-enabled future are also thinking about IT and operations differently. They recognize the need to shed current IT constructs in which they build and operate

their own information supply chains. They're preparing to compete more aggressively by differentiating value through cloud-powered proprietary services, processes, algorithms and data.

For every business, regardless of industry, success through cloud means rapidly adopting operating models and IT systems with a pragmatic, value-driven, cloud-first "Everything-as-a-Service" mentality. It means modernizing legacy technologies to support business processes far along the commoditization curve.

The journey begins: blueprint and roadmap

Although no two journeys to cloud are the same, we are seeing certain patterns emerge among capital markets as organizations begin to adopt new technologies.

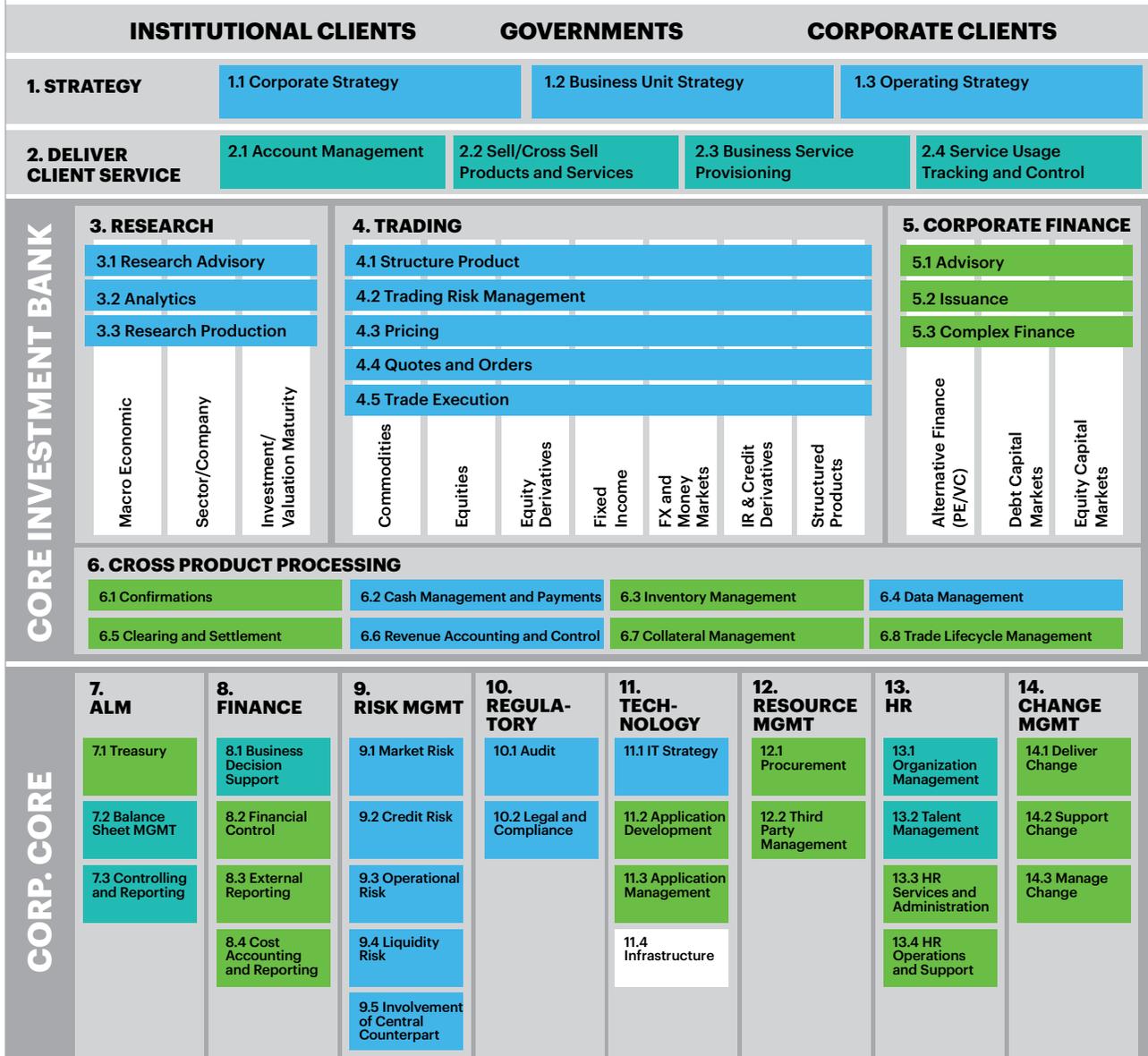
Forward-looking investment banks are taking a macro, holistic view of what a fully cloud-enabled investment bank looks like. This includes considering the benefits of cloud-enabled solutions across Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS) and Infrastructure-as-a-Service (IaaS). The use of IaaS, PaaS and SaaS varies across the value chains of different capital markets institutions.

¹ "Accelerating the Journey to Cloud, Top 10 Challenges for Investment Banks—2017," Accenture, 2017. Access at: https://www.accenture.com/t20170111T213812_w_/usen/_acnmedia/Accenture/Designlogic/16-3360/documents/Accenture-2017-Top-10-Challenges-07-Cloud.pdf

ACCENTURE'S MODEL FOR THE HIGH PERFORMANCE INVESTMENT BANK OUTLINES A POTENTIAL SAMPLE BLUEPRINT FOR A 100% CLOUD-ENABLED INSTITUTION.

Ideal Cloud 100 Investment Bank-in-a-Box solution set:

- Leverages Accenture's broad industry experiences and perspectives
- Based on Everything as a Service (XaaS) offerings currently available today in the market, resulting in an XaaS Adoption Scale rating of 71r.
- Assuming FinTech firms bring new and innovative utility offerings to the market at their current rate, we estimate the "ideal" XaaS Adoption Scale rating might increase to 95r by 2025.



IT Spend %/XaaS Rating



Note: Colors are driven by the lowest common XaaS solution supporting the underlying Level 3 business process within that capability.

A journey that requires a ‘value-led’ roadmap

Typically, a venture into cloud begins by building product-mapping functions into different areas of an investment bank’s business model. Essentially, Accenture develops a roadmap of services to help the bank’s C-Suite and board determine how their organizations would operate in the future.

A successful journey to cloud often comprises a series of key steps and specific services beginning with a value-led strategy. This planning phase uses the business strategy to shape the direction of IT, taking advantage of cloud to increase shareholder and business value.

The next phase of a well-defined cloud roadmap encompasses infrastructure assessment and planning. Having a clear understanding of the current IT estate helps capital markets firms plan and prepare for cloud platforms and infrastructure deployment programs including PaaS and IaaS.

Once the planning phase is complete, we move into cloud application migration assessment and planning. This phase is essential to create an inventory of legacy applications, assess a bank’s portfolio and ask a number of critical questions:

- What do we migrate, and what stays on legacy?
- Do we need to build new applications?
- What type of environment do we need to create?

No less important, banks need to consider the cost/benefit ratio of application modernization. The alternative—building cloud-native solutions from scratch, or consuming SaaS—may prove more beneficial than a rebuild.

Modernization and re-engineering

Clearly, cloud adoption has its benefits, but attaining these benefits requires material modernization and re-engineering of bank applications—most of which were built for traditional, on-premise platforms. However, the application modernization process itself prepares banks for a state of cloud resilience or “nativeness.” Application modernization also facilitates the

transition toward microservices, as well as technology and design pattern re-use—which can reduce technical debt and increase agility.

Typically, we see larger investment firms moving to a multi-cloud environment while smaller firms take a single cloud provider approach. Despite size, however, each should consider which operating model and cloud management platform is most appropriate for their business.

Building the business case for cloud

To help drive insight into your cloud savings and benefits, Accenture leverages a vigorous financial model that considers key elements such as budget, P&L, cash views and costs associated with ramping down legacy apps.

Indeed, the potential cost savings alone represent a strong argument for cloud—but for investment banks, cloud adoption is part of a broader strategy toward effective digital innovation. Moving to cloud requires a clear tactical vision, strong governance, durable processes and intelligent delivery technology. With these elements in place, capital markets firms can accelerate operations and improve a range of functions from how they conduct modeling, analysis and integration to how they detect anomalies.

The non-technical aspects of the journey to cloud are the most important

Although most cloud discussions start with a technology focus, the operating model is the critical linchpin of success—as it involves people, processes, tools and governance. Because cloud solutions are non-uniform in nature, a “one-size” operating model will not suffice.

Rather, banks need to consider that multispeed operating models will co-exist for years to come, while people, process and tools remain interoperable.

The right operating model is the key to achieving increased agility, technology operating efficiencies—and reducing infrastructure costs. As a starting point, Accenture has a vigorous Cloud Operating Model framework that has been tuned for Investment Banks.

CLOUD OPERATING MODEL KEY COMPONENTS

Accenture’s Cloud Operating Model is more than an organization chart or a process framework; it is a **holistic guide** consisting of seven components that articulate how work gets done.

Functions: How we organize ourselves to deliver services

Processes: How we execute the work

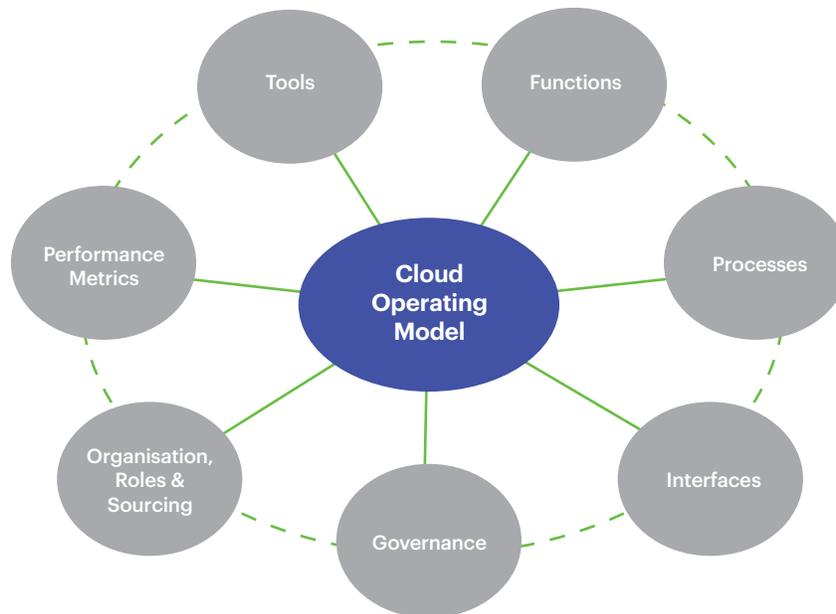
Interfaces: How we interact to deliver consistent services

Governance: How we make, sponsor and enforce the right decisions

Roles & Organization Structure: Who is accountable for doing the work

Performance Metrics: How we measure effectiveness

Tools: What enabling technology we use to deliver productivity and agility to service execution



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The power of management and optimization

Like any utility, cloud costs can grow rapidly and must be managed. An effective cloud optimization capability can be the difference between achieving the business case and missing the mark.

Ideally, a company will adopt automated management tools to achieve more control over costs, improve governance and increase accountability in its cloud consumption. Effective cloud management and optimization is comprised of five critical components:

1. *Cloud operations* including support, cloud engineering, cloud service management, service desk and monitoring.
2. *Security operations*, defined as flexible cyber and data protection services that can secure cloud environments and infrastructure.
3. *Cloud optimization services*, or managing cloud costs through analytics, actionable recommendations and operational improvement, as well as application remediation and re-architecture.
4. *Application management* including support, ongoing maintenance, enhancements and upgrades.
5. *Business process operations*—the business layer on top of cloud technology assets and services that is focused on delivering improved business outcomes.

Application management is a particularly important aspect of any enterprise cloud plan. Proper architecture, design, development, testing, maintenance, modernization and renewal can help investment banks achieve cost efficiencies, continuous optimization and ongoing innovations within their application portfolio.

Raising the bar on security

The maturity of private, public and hybrid cloud platforms—particularly with regard to security—is fostering cloud adoption in the capital markets sector.

Before moving to cloud from the periphery to a main-stream IT strategy, capital market firms should:

- Address the security and risk associated with cloud computing to protect clients' information and assets
- Map regulatory requirements and approach
- Build internal trust in cloud-based operations, management and control in terms of ensuring resiliency, high availability and disaster recovery capabilities

Because of the nature of their regulatory and legislative landscape, investment banks are particularly concerned with security and risk. This environment makes it critical for a financial institution to identify data privacy, security and regulatory compliance risks to help enable a successful cloud transition. A careful assessment of this landscape should be paired with a reliable security operating model.

The good news for banks is that an increasing number of their peers have now made the move. A solid security reference architecture, in combination with understanding and leveraging the precedents, can ease the journey.

The cloud at work

The long-heralded potential opportunities for investment banks to take advantage of cloud capabilities are now real—enhancing and improving day-to-day functions such as:

- Risk calculations (using leading tools such as artificial intelligence and machine learning)
- Sales and trading
- Trade and post-trade settlement and enablement
- Pricing and data management
- Reconciliation support
- Finance and corporate functions

Accenture has the experience and capabilities and is at the forefront of developing financial services cloud solutions to guide our clients at the pace of innovation on their journey to cloud.

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