



Client-facing technologies for investment banks

**Digital transformation imperatives for
investment banks to transform the
'buy-side' experience**

December 2020

Executive summary

Sell-side firms in capital markets are experiencing a huge uptick in the volume and complexity of demands and issues reported by enterprise buy-side clients, such as asset managers, hedge funds, private equity, and corporate treasurers. On top of that, the outbreak of COVID-19 has jolted the entire capital markets industry, adding to the headwinds confronted by the sell-side servicers.

So, the incumbent sell-side firms, such as broker-dealers and researchers, are under intense pressure to reinvent the way they serve their enterprise clients today – with a strong emphasis on digitization and customer experience. Otherwise, they risk losing a vast segment of their enterprise customers to emerging fintech disruptors.

To solve this, sell-side firms need to first acknowledge that issues faced by their enterprise customers emanate across the trading life cycle, starting with customer onboarding and transaction processing, and extend all the way through settlement and reporting. So, **investment banks need to think holistically and long term about how to modernize their client-facing technology functions across capital markets to transform the experience of their enterprise clients.**

Once sell-side banks identify the short-term and long-term business imperatives of the modernization journey, the transformation should be built on the bedrock of an architecture framework that is robust, nimble, and scalable to sustain the ever-changing capital markets dynamic. To guide them through this endeavor, sell-side banks need to establish clear success criteria as below:

- Access to **360° real-time view** of the client account information
- Actionable **analytics and visualization** capabilities
- Flexible **customer-centric solution** with **low cost to operate** and enhance
- **Targeted and relevant research** and digital content
- **Scalable microservices-based and Application Programming Interface (API)-driven** architecture

This point of view is intended for business, operations, and technology leaders of front office functions, broker-dealers, and other sell-side firms whose clients are buy-side firms like money managers and asset managers. In the next few sections, we use real-world case studies to explore the pain points of enterprise clients and better understand technology's role in solving their frustrations.

Serving institutional client needs — Are banks waking up?

With the increased focus of user experience on the institutional side, broker-dealers need to urgently improve the experience for their clients (e.g., hedge funds, fund managers, retirement service providers), as well as increase operational efficiency for internal stakeholders (e.g., front office, operations). For example, a hedge fund may want its clients to be onboarded seamlessly onto the broker-dealer platform across products and regions. To provide such a seamless experience, internal stakeholders, like front office and operations, will need to reduce Know Your Customer (KYC)-related iterations. Building such capabilities has high time to market, and currently there are no market utilities which can provide these services. Hence, broker-dealers need next-generation, product-based technologies that can address such needs. More specifically, these platforms or products need to provide five essential capabilities as summarized below.

Although broker-dealers are investing to augment their capabilities in the above areas, most are still not able to provide an exceptional end-to-end experience to their buy-side clients, and many pain points exist that need to be solved.



Reimagined user

Designing state-of-the-art, next-generation client experiences to enable consistent, cross-channel, persona-driven, onboarding-to-execution experience



Single view of customer

Implementing a **modular, multichannel platform** that supports cross-functional requirements across capabilities, including sales, onboarding, and client management to enable a **“360° view of the customer”**



Scalable architecture

Creating a **microservices**-based architecture that is API driven, evolutionary, scalable through cloud, and **extensible** across global markets









Analytics

Building **actionable analytics** and **visualization capabilities** across all functional areas to empower ecosystems

What do enterprise clients need from sell-side firms?

Enterprise buy-side clients have grown increasingly demanding in their expectations from sell-side services, as they strive to derive the maximum value out of their touchpoints with the sell-side services. Here are the key pressing needs as shared by enterprise clients, as well as internal stakeholders:















| |  |  |  |
|---|---|---|--|
|  <p>Enterprise Client's Pain</p> | <i>"I need faster account opening with real-time view of my application status"</i> | <i>"I want to avoid redundant touchpoints and manual handoffs because they are frustrating and delay operations"</i> | <i>"I want a simple, consistent, and efficient onboarding and account management experience for all my clients"</i> |
|  <p>Client Relations Manager's Pain</p> | <i>"I need real-time access to status of any workflow, ranging from onboarding applications to transactions"</i> | <i>"I need capabilities to support "as is" operations as well as new products"</i> | <i>"I want a user-friendly and intuitive user interface with advanced capabilities such as making cross sells"</i> |
|  <p>Ops and Compliance Team's Pain</p> | <i>"I need workflows and tools to increase straight-through processing for process improvements and new product introduction"</i> | <i>"I want advanced analytics that provide visibility to process performance, service-level agreement metrics, and problem areas"</i> | <i>"I need to create holistic view of clients for appropriate risk ratings"</i> <i>"I need to continuously monitor and accurately report clients to support necessary KYC investigations"</i> |

To solve these pain points and provide an exceptional experience to enterprise clients, sell-side banks need to look at technology as a key enabler.

The role of client-facing technologies across the trade life cycle

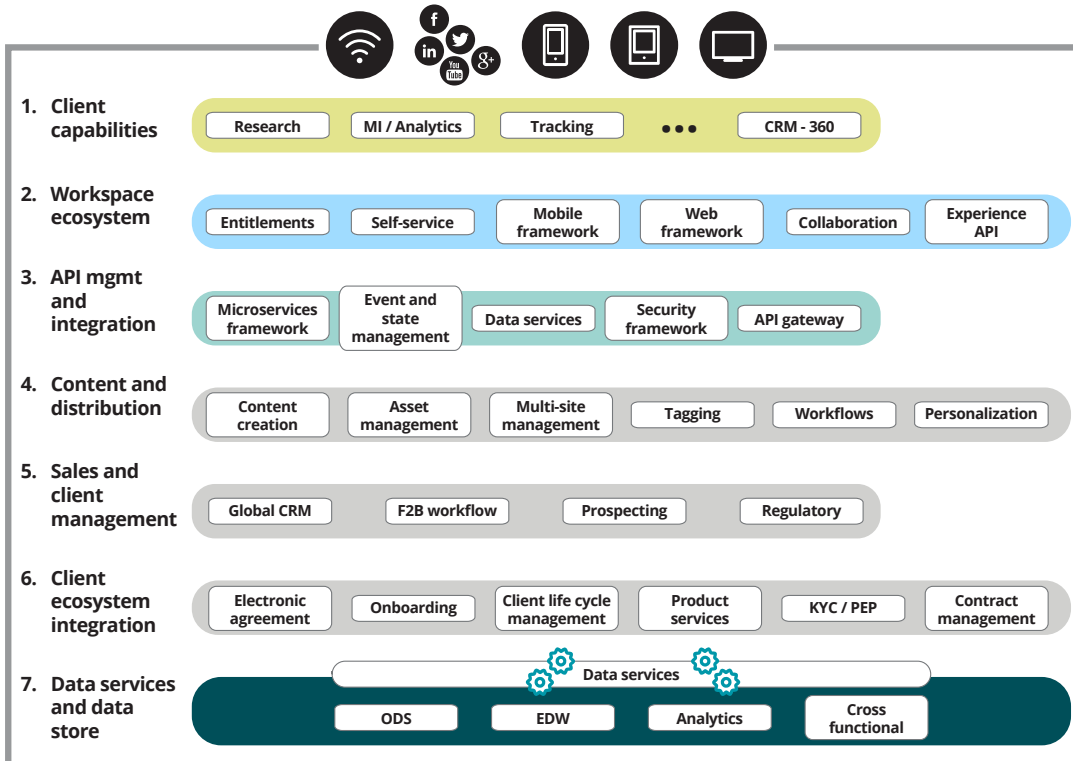
When banks think of “client-facing technologies,” they typically think of onboarding as the biggest area of impact. While onboarding is critical and sets the tone for the remainder of the relationship, a consistent digital experience is created only when client-facing technologies are used across all touchpoints throughout the trade life cycle. The below diagram shows the key functions that involve client interactions across the trade life cycle for a broker-dealer.

Let us look at few examples to understand how technology can improve client experience beyond onboarding. The first example is from Pre-Trade and Execution, where algorithms can be used to generate indicative or live screen quotes, or may be used to reply to requests for quote (also known as auto quoting), which can provide a great experience to institutional clients. Another example is from middle and back office areas, like Post-Trade confirmations or Anti-Money Laundering (for Compliance and Risk), where workflow automation controls can be used to reduce the number of processing exceptions. Sell-side banks need to identify similar business imperatives for their businesses to define a road map for the target state.

| |  Onboarding | |  Pre-trade and execution | |  Post-trade operations | |  Compliance and risk | | | |
|------------------------------------|--|---|---|---|---|--|---|---|---|---|
| Sample capabilities | Information management | Approval and processing | Order management | Quote pricing | Trade processing | Position mgmt. | Risk generation and compliance | | | |
| | Document list generation Document / data collection Data refreshes Standard settlement instruction and preference capture | Credit check Legal contracting KYC check Regulatory check Sign-off facilitation Account setup Account opening | Pre-execution checks Trade structuring RFQ mgmt. Trader intelligence and analytics | Algo pricing Auto quoting Offering distribution | Allocations Transaction management Confirmation / affirmation Matching Netting | Life cycle events mgmt. Initial margin calculation Corporate actions Position publication | Risk reporting Model risk Post-trade compliance Regulatory reporting Market, credit, and liquidity risk Anti-money laundering Risk and controls | | | |
| | Client servicing | | Trade capture | Pricing and model mgmt. | | Settlements | | | | |
| | Status updates and reporting Cross-sell recommendations Analytics / perf. reporting | | Pre-trade checks Pre-trade reporting Trade booking | Pricing services Market data mgmt. Curve services | | Cash settlements Margin and collateral mgmt. Asset servicing Payments | | | | |
| Sample interaction channels |  |  |  |  |  |  |  |  |  |  |
| | Voice | Mobile | Client portal | Email | Third-party services | Third-party APIs | Internal APIs | Connectivity providers | Vendor app integration | Message hubs |

Reference architecture

Once a strategic road map is in place, broker/dealers need to think about “how” to reach target state. The road to standing up a robust and agile client-facing technology landscape may seem daunting at first. Deloitte has developed an industry standard solution architecture that banks can reference to as they start addressing the above-mentioned customer pain points. Below are the key components of this framework:



- Client capabilities:** Industry-leading digital, cross-channel, and persona-driven, client-facing capabilities supporting key institutional clients.
 - Workspace ecosystem:** Set up a differentiating user experience through entitlements, intelligent chatbot-based self-service, and latest Angular / React-based web framework / open sourced mobile network for responsive web designs, cloud-based collaboration suite to bring multiple stakeholders. Augment the framework through continuous learning using experience API or experience capturing toolsets.
 - API management and integration:** Drive business functionalities and integrations of distributed workflows through an integration platform, which allows patterns of data consistency, multistep processes, and composite service capabilities.
 - Content and distribution:** Build multichannel digital authoring and publishing capabilities, which support easy content authoring, digital asset management, content governance, in-built content workflows, personalization, etc.
 - Sales and client management:** Integrate with modular platform anchored leading Customer Relationship Management (CRM) software provider, which supports integration across ecosystems and utilizes low code / no code workflow platform to build front-to-back workflows.
 - Client ecosystem integration:** Choose ecosystem partners for electronic agreements, client life cycle management, Know Your Customer (KYC) / Politically Exposed Person (PEP) third-party support, etc., to reduce complexity of different standard capabilities.
 - Data services and data store:** Ensure all CRUD (i.e. create, read, update, delete) operations on data is strictly designed via service-based framework on top of different data stores, such as Operational Data Store, Enterprise Data Warehouse, etc.
- A reference architecture, such as above, can accelerate creation of a state-of-the-art, client-centric, cost-effective, and scalable target ecosystem that balances business priorities, market perspectives, and investment considerations.

Illustrative user journey

While having a reference architecture is a good starting point, the next step for a bank is to identify and focus on key user journeys, prioritize them, and develop an execution road map. Journeys could be classified as buy-side focused (e.g., institutional account opening as a journey), front-office focused (e.g., sales / trader on capital markets side, deal on investment banking side), and infra-focused journeys (e.g., compliance, risk, operations). Below we provide examples of two illustrative journeys.

User journey: Institutional account onboarding



INITIATION

The client can either initiate a new onboarding request by providing all the required data and documents, or the client can reach out to a relationship manager to open a new account on their behalf. In the second case, the relationship manager creates an onboarding request with all the data and documents provided by the client.



CONTRACTING

The client's legal team and the bank's legal team negotiate the terms of the contract, if not already covered by any existing contracts. The credit team also performs a credit evaluation.



ENRICHMENT

The request is then routed to the onboarding services team to enrich the case with additional data about the client from the documents provided by the relationship manager, existing client documents, or existing client information in the bank system.



DUE DILIGENCE

Due diligence teams like KYC, Regulatory, Tax, Credit, Legal, Financial Crimes, etc., conduct due diligence. On successful due diligence, the case will be approved for further processing. Else, it may be declined or put on hold with a request for additional information. If additional information is required, the case is sent back to the onboarding services team to collect additional information from one of the three sources mentioned above. If the case is declined, the case is sent back to the relationship manager, who communicates the status with the client along with necessary details.



ACCOUNT SETUP

If the case is approved after due diligence, the administrator creates a new trading account and sets up the maintenance, monitoring, and reporting accounts by linking them with the trading account. Once these accounts are set up and linked, the relationship manager sends out disclosures to the client along with details of newly created account. Client receives notification of account setup completion (preferably automated) and has easy access to self-guided trainings for product features, functionality, and usage.

Case study



“What are the market best practices that I need to adopt to improve my customer experience? What more do I do to go above and beyond? What capabilities do I need for the next three to five years?”

— Lead Client Data and Analytics, Canadian Bank

- Assess **current maturity** of systems and services
- Understand best practices around **self-service, single view of client**, and **just-in-time onboarding**
- Untangle **overlapping capabilities** to improve organizational alignment
- Understand what needs more focus as part of **future-state roadmap**



Target state imperatives



Outside-in perspectives



Reference assessment framework

Solution

- Conducted a **detailed assessment** of **current state capabilities** and **identified overlapping / redundant capabilities** that are owned across business functions outside the Client Data and Analytics team
- Identified **target state imperatives** and aligned them with services provided
- Provided **outside-in view on key challenges** to be fixed across self-service, single view of client, and just-in-time onboarding
- Demonstrated a **reference assessment framework** to identify issues across client onboarding and services



CAPABILITIES



OVERLAPPING SERVICES

Helped rationalize and align client-facing services

Impact

- Identified **core capabilities** for target state that need to be owned by Client Data and Analytics team
- Developed a **service catalog** with future-state services
- Conducted **T-shirt sizing** of all future-state services based on five-year roadmap plan

What next?

The road to building a successful client-facing technology landscape necessitates the following actions, sooner than later:

- Leaders need to act as “Change Agents” to bring a cultural shift within their organizations to perceive client-facing technology as an enabler of rich client experience, not just a support function. The entire organization needs to realize that a rich digital experience is a business imperative, now more than ever, because it can fuel top-line growth through high retention and fast expansion of customer base.
- Prioritize modernizing client-facing technology over everything else. To stay competitive in the marketplace, listening and responding to customer needs is not enough. Banks and fund managers should be able to anticipate customer needs and make relevant products and services available beforehand. This needs adoption of innovative technologies, such as Artificial Intelligence, Robotics and Cloud, within their client-facing tech stack.
- If there is one economic lesson to take from current health crisis caused by COVID, then it is to “Be Bold and Be Innovative” in your technology vision. There is no dearth of businesses that went out of business due to COVID, but organizations that built a scalable and flexible client-facing technology landscape were able to stay relevant and be the trusted partners for their customers.

Contact

Authors



Sriram Gopalakrishnan
FSS, Deloitte Consulting LLP
sgopalakrishnan@deloitte.com

Sri leads Deloitte Consulting's US Capital Markets practice. He has 20+ years of experience in leading transformation programs for investment banks and brokerages focused on digitization, cost reduction, cloud enablement, regulatory reform, and achieving operational efficiencies. Sri also serves as the Global Lead Consulting Partner for a tier 1 investment bank.



Dev Sahoo
FSS, Deloitte Consulting LLP
desahoo@deloitte.com

Dev has more than 12 of experience helping investment banks and asset managers in their Operations and Technology transformation journeys, including operating model design, digital transformation, technology strategy and cloud migration. In his recent engagements, Dev helped clients with investment strategy implementations, cloud readiness assessment and risk reporting.



Jayanta Ghosh
FSS, Deloitte Consulting LLP
jaghosh@deloitte.com

Jayanta has more than 13 years of experience leading technology advisory work within capital markets having driven transformation initiatives focusing on system and infrastructure upgrade, application architecture changes, vendor and platform assessment, business and functional architecture blueprints, and managed business operation and projects.



Caitlin Callahan
Deloitte Consulting LLP
cacallahan@deloitte.com

Caitlin is an analyst who has worked on numerous financial services engagements with experience in project management, digital transformation, and cloud. Her latest engagement includes supporting a capital markets client on developing the target state technology digital transformation required for the business, including enablement of front office capabilities.



Abhimanyu Basu
FSS, Deloitte Consulting LLP
abbasu@deloitte.com

Abhimanyu has seven years of experience helping clients define and implement strategic data initiatives. He has worked extensively with asset management and Broker-Dealer clients on data modernization (cloud migration, big data pipelines, regulatory reporting) and digital transformation. Abhimanyu has rich experience in product management, solution architecture, process improvement, and project management.



About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as "Deloitte Global") does not provide services to clients. In the United States, Deloitte refers to one or more of the US member firms of DTTL, their related entities that operate using the "Deloitte" name in the United States and their respective affiliates. Certain services may not be available to attest clients under the rules and regulations of public accounting. Please see www.deloitte.com/about to learn more about our global network of member firms.

© 2021 Deloitte Development LLC. All rights reserved

Designed by CoRe Creative Services. RITM0616965