

CELENT

MULTI-PLATFORM CORE BANKING VENDOR STRATEGIES

Collation of FIS Core Banking Profiles

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MULTI-PLATFORM CORE BANKING VENDOR STRATEGIES

The core banking vendor landscape can be segmented between providers that offer a single core platform and those that offer multiple core platforms to the market. While the single platform approach can furnish benefits to financial institutions through focused R&D, successfully executed multi-platform strategies can offer the combined benefits of leveraged R&D with strong client segment attention. This can lead to better functionality fit and roadmap responsiveness to a specific financial institution needs.

Single- versus multi-platform vendor strategies

The core banking vendor landscape contains a seeming paradox. For individual banks the choice of suitable core banking providers can seem relatively constrained, while from a provider perspective the market is highly competitive, with multiple vendors chasing a relatively small number of deals. The apparent mismatch derives from the long replacement cycle for core banking platforms, often measured in decades rather than years, combined by significant diversity in the sector (size, product focus, business model, and geographic footprint), which means that despite the large number of banks, the market for new business – the lifeblood of any provider – is relatively small in any one year. Vendors need to address the challenge of maintaining technology leadership and functional richness to win new clients, while cost effectively delivering capabilities and support requirements for existing clients.

To address this, vendors have a choice between two strategic approaches. The first is create a broad platform that is flexible enough to support the diverse needs of multiple market segments. Here the vendor goes-to-market with a primary (i.e. single) platform that typically offers a combination of universal banking product support (e.g., across retail, corporate, & wealth) with a functional architecture that separates out global capabilities, with regional and country-level localization layers. This allows the ‘single platform’ vendor to broaden its potential deal pipeline, with the aim to achieve a large client basis to sustain a broad pooled R&D capability.

The second approach is to offer multiple core banking platforms (typically acquired through acquisitions), with platforms targeted towards different customers segments and / or strategic preferences (e.g., whether banks prefer to run or outsource their core platforms, geographic location, size or product focus). While

these platforms are typically not as broad as single-platform vendor platforms, R&D focus will be more tailored to the specific needs of the target segment.

Considerations for banks in selecting a single-platform or multi-platform vendor

For institutions considering acquisition of a new core banking platform, the relative merits of the single- versus multi-platform vendor approach often comes up during the selection process (and in many cases will form a key part of vendor market messaging). However, from a Celent perspective, the implications for banks of a vendor adopting either approach is not definitive either way. Rather it is more dependent on the ability of the vendor to execute either strategy effectively, and as such it is important to validate the true capabilities of a platform over marketing. For example, particularly when vendors have acquired capabilities, many 'single' platforms may in reality be less singular in terms of architecture, technology and data models than portrayed in supporting brochureware.

When evaluating core platforms, there are three primary consideration areas:

- Functional capabilities – the ability of the platform to support the business requirements of the institution. While there are many commonalities at the fundamentals level, this will vary for each institution depending on its customer segments, country markets, lines of business offered, product coverage, as well as scale, reach, expansion plans and overall business model.
- Platform capabilities – the underlying capacity of the platform to deliver effective performance. This is driven heavily by the technical architecture of the platform as well as deployment model; to provide required performance, resilience, and security; enable implementation, integration and change. Platform capabilities will determine labor and infrastructure resource consumption, heavily driving total cost of ownership.
- Platform vendor's execution capabilities – the ability of the platform vendor, directly, or with established implementation/delivery partners, to deliver successful deployment and provide ongoing delivery/support.

In all these areas, a key aspect is the ability of the vendor/platform to support the institution's current and future requirements. Indeed, given most banking platforms are run for decades, the ability to support future requirements is a key criterion for many banks, with many prepared to manage with short-term functionality gaps if the platform can effectively support future innovation and agility needs.

As part of this, another area that banks should consider is the strategic importance of a platform to a vendor – how committed is the vendor to the platform, to maintain high levels of R&D investment? This is both to increase functional richness, but also to ensure underlying technology architecture and platform are maintained to current practices, to allow institutions to benefit from latest technologies (such as artificial intelligence).

As a selection factor, strategic importance will often favor single-platform banking system providers. In this situation it is clear that the platform is “strategic”, with R&D strength of the vendor directed towards this platform. Conversely, determining relative strategic importance can be more confusing for multi-platform providers, with a concern that the platform may become “unstrategic” and suffer from limited investment.

However, while there are elements of truth in this, actual R&D investment (relevant to the need of a specific institution) will be dependent on multiple factors:

- Firstly, overall R&D investment in a platform is dependent not only the focus, but the scale of vendor, i.e. the overall size of investment is in reality more important than a % number.
- Secondly, functional capability investment in an area will depend on the breadth of the platform. For example, investment in universal banking platforms will require enhancement and development of capabilities across retail, corporate banking, and wealth areas, with product managers effectively competition for R&D investment. While vendors will typically incorporate client feedback into product roadmaps, the extent of this for a specific client will depend on relative client importance, relevance to wider client base, and, in reality, be also driven by the vendor’s own strategic growth plans (e.g. to expand into a new market).
- Thirdly, maintaining and modernizing underlying technology architecture and platform is a huge undertaking, and one that is a challenge for both single- or multi-platform vendors alike. Moving to the latest generation of technology requires financial strength and the ability to support existing clients through their choice and pace of strategic journey. While still challenging, multi-platform strategies can provide banks with a choice of progressive renovation path, particularly in providing the option to maintain the current technology approach or shift to latest technologies.
- Fourthly, institutions should bear in mind that the core banking vendor landscape is highly dynamic. Certainly, over the typical period of core platform replacement, vendor ownership and strategic direction may change significantly (for both single and multi-platform providers).

As a result, the single platform versus multi-platform debate is less important than the effectiveness of a specific vendor in managing its chosen strategy, and R&D allocated to each platform. For multi-platform vendors, the key aspects are the ability to be able to leverage R&D investment across cores where it makes sense, the ability to leverage deployment, support, and commercial scale, together with the ability to get a critical mass of clients with a specific core to maintain ongoing levels of R&D. If this is achieved, then a stronger client segment focus for each core can mean that fit and development is closer to needs of a specific institution.

FIS Profiles from Celent Evaluation Reports

FIS is a multi-platform core banking vendor, which having both developed and acquired several banking technology vendors, now offers a selection of different core banking platform to the market. Over the course of Celent's ABC evaluation series, many have been analyzed and profiled by Celent.

The following profiles are taken from Celent's recent Retail Banking Core Systems ABC evaluation series, published over 2023-24:

- Retail Banking Core Systems: North American Mid-Large Bank Edition (May 2023)
 - IBS
 - Profile
 - Systematics
- Retail Banking Core Systems: North American Community Bank Edition (September 2024)
 - HORIZON
- Retail Banking Core Systems: Next-Gen Core Banking Edition (December 2024)
 - Modern Banking Platform (MBP)

Note that Celent evaluation is specific to each report market segment and respective market peer groups. For example, MBP is evaluated against North American mid-large peers in its first profile, and against next-gen core banking providers in the second.

Content or scoring has not been altered from original reports, aside from a change in formatting for the Next-Gen Core Banking Edition profile (which has been converted from a slide to document format).

FIS: HORIZON



FIS is a public company headquartered in Jacksonville, Florida. It is a leader in technology, solutions, and services, with presence globally across more than 50 countries in North America, Latin America, Europe, and Asia Pacific regions. The company provides a broad array of capabilities across the banking, merchant, and capital markets sectors through an array of mission-critical platforms and processing solutions to meet industry-specific needs of different segments and client types. Within the banking sector, FIS offers multiple core banking systems, providing a range of platforms for different types and sizes of institution.

Company and Product Snapshot

Table 1: Company Snapshot

Year Founded	1968
Headquarters	Jacksonville, FL
Number of Employees	55,000
Revenues (USD)	\$10 billion
Financial Structure	Public company NYSE: FIS
VendorMatch Link	https://www.celent.com/vendormatch/discovery/solutions/704196905 https://www.celent.com/vendormatch/discovery/vendors/fis

Source: Vendor RFI

Table 2: Product Snapshot

Name	HORIZON
Year Originally Released	1989
Current Release and Date of Release	2024.01/2024
Revenue Derived from the Product	FIS does not disclose revenue at the solution level.
Target Market	Commercial, retail, and savings banks in the domestic US and US territories. The majority of HORIZON clients have <\$10B in assets, with a number of institutions in the \$10B to \$25B range.

R&D Expense	FIS typically reinvests 7% to 8% of global revenue in R&D.
FTEs Providing Professional Services for Product	N/A
Notable Clients	Amalgamated Bank, National Capital Bank, Newburyport Bank
User Conference	FIS Emerald

Source: Vendor RFI



HORIZON provides a robust set of base functionalities, augmented with many pre-integrated FIS applications, including commercial/treasury solutions, online and mobile banking for consumer and commercial customers, bill pay, debit and ATM processing, and many others. Bankers can also easily integrate a wide array of bank-chosen solutions using FIS’ Code Connect APIs.

– FIS

Platform Summary

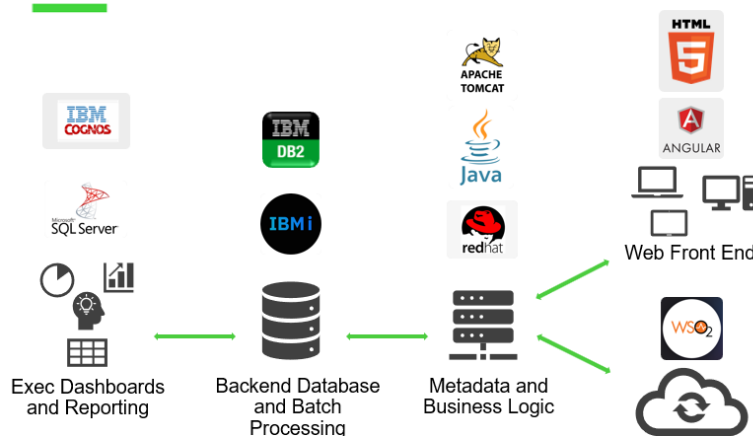
HORIZON Financial Software Corporation is a company that was formed in 1987 through a management buyout of the financial software division of branch automation specialist Systematics Corporation. FIS’s predecessor company Systematics acquired HORIZON in July of 1990, two months after Systematics itself had been acquired by Alltel Information Services.

HORIZON was developed utilizing the RPG-IV programming language and runs on IBM’s Power Systems mid-range hardware. The IBM Power System is a time-tested hardware platform with more than 30 years of success supporting businesses around the world and has been modernized to support the latest security and virtualization capabilities needed to power large, mission-critical applications.

Figure 1: HORIZON IT Architecture

HORIZON

LEVERAGES BEST-IN-CLASS TECHNOLOGY



Source: Vendor

Integration tools include HORIZON APIs that are hosted on the FIS Code Connect Marketplace. The API catalog provides an easy-to-use portal that serves as the library for all FIS APIs and empowers application developers to begin coding in minutes. Using HORIZON APIs within the FIS Code Connect Marketplace, developers can browse through the catalog of existing HORIZON APIs, read documentation describing their use, and experiment using them in a “sandbox” environment. Developers can then subscribe to the APIs they want and use them in an actual integration. HORIZON API technology, with its open and more streamlined approach to integration, can address a series of business and technology challenges and enables speed-to-market integration opportunities. The API User Acceptance Testing (UAT) environment enables a banker to test new APIs or maintain integration before scheduling for production.

Within the HORIZON modern, fully browser-based user experiences are bank-defined product controls that empower the banker to build customized products and service definitions without assistance from FIS. Product Types hold both processing controls that govern all accounts within a product type and default controls that enable override permissions to the account level. To provide perspective, the HORIZON deposit applications can support more than 46,000 bank-defined product types. Product Types, as an example, contain bank-defined service charge and fee rules, maturity controls, interest controls, penalties, and statement/notice controls. Rollout and maintenance of a new product is controlled by the banker.

Key Features

HORIZON is a tightly integrated core banking solution that covers a wide range of account processing applications that range from deposits to mortgages to commercial loans.

The system also includes an integrated ACH module, a debit/ATM card application, commercial account analysis, a robust general ledger application, a collections application for both loans and overdrawn deposits, a construction project management application, a commitment application, a deposit origination set of services, and a deeply integrated teller application.

HORIZON is accessed through a modern browser user experience that goes from branch desktops to remote using laptops, iPads, and similar HTML-friendly tablet devices.






Table 3: Key Features

1



Architecture Overview

Hosted core banking system where all required infrastructure including redundant hardware is hosted on the FIS Private Cloud infrastructure.

2		Support for Cloud	HORIZON can be deployed on premise (at the customer, at a partner, or at FIS). The FIS Private Cloud infrastructure can host the user front-end of the core to leverage the resiliency and availability for client access to critical functions, to deploy virtual servers, and monitor service functionality and performance.
3		APIs and Integration	Supports microservices architecture for integrating new functionality into the core, although the core itself is not built on microservices architecture, is not stateless, and does not support container orchestration, service mech support (e.g., Istio), or cloud-native streaming and messaging.
4		System Flexibility	HORIZON APIs are designed to eliminate the need for costly custom interfaces. FIS Code Connect is an API platform that provides a central marketplace or access point to expose and manage all FIS solutions via APIs.
5		Real Time Capability	HORIZON is a hybrid solution with efficient nightly batch processing while supporting real time maintenance and real time, intra-day running ledger balance updates. In addition, it also supports several critical real time transaction capabilities, such as loan payments and general ledger updates, while allowing the bank to utilize commercial-focused batch posting capabilities, including transaction grouping and posting order based upon return rights.
6		Data Models	Supports DB2 and SQL databases. A significant amount of data is defined in DB2 tables and fields. FIS policy is to not enable modification of the HORIZON source code or database. Source code is secured to prevent modifications that may disrupt a client's processing. Customizations are available through FIS professional services.

Source: Vendor

IT Road Map Overview

HORIZON recently completed the Angular 12 version of the XE user interface, which marked a major milestone in the platform modernization efforts. Other recent improvements included account reconciliation expansion, alerts, fee waiver reason codes, and enhanced posted exception processing.

In 2024, FIS is continuing to enhance the client experience around the platform with additional payment ecosystem enhancements (e.g., support for FedNow integration), expanded data integration investments, and investments in emerging technology integrations (e.g., banking-as-a-service).

The current road map includes the 2024 tax reporting updates, strengthening the integration of FIS payments and digital solutions, and expanding the HORIZON API catalogue.

The HORIZON team has a structured process of gathering input for future enhancements through user groups, focus groups, executive forums, and the sales process which are monitored for expansion of existing features as well as indication of industry trends that drive core system modernization. Larger, longer-term

strategic enhancements are driven through the internal FIS enterprise strategic input process and feedback from client executive forums.

ABC SUMMARY



Advanced
Technology



Breadth of
Functionality



Customer
Base

Celent Opinion

HORIZON continues to be a proven, reliable, and sought-after core solution for community banks and specialty finance institutions looking for an on-premise or FIS-hosted option that covers the entirety of its functional requirements. HORIZON added more clients than any other core system since Celent's previous North American Community Banking core system report and added the second-most net new clients during the past two years. Celent anticipates that HORIZON will continue to add new customers despite consolidation in the community banking sector.

While less of the core is exposed as APIs or built as microservices compared to other core systems evaluated in this report, clients and prospects are still attracted to HORIZON's features and functionality, hosted deployment, and ability to integrate FIS Code Connect. Banks with under \$20 billion in total assets will find HORIZON to be a good choice. Larger banks or those looking for cloud deployment on a more modern technology stack may look at other FIS or industry core systems.

Functionality

Table 4: Functionality

Category	Function	In Production	Supported But Not in Production	Not Supported
Deposits	Retail Deposits	●		
	Commercial Deposits	●		
Retail Lending	Credit Card Originations	●		
	Credit Card Servicing	●		
	Consumer Loan Origination	■		
	Consumer Loan Servicing	●		
	Home Equity Loan/Line Origination	●		
	Home Equity Loan/Line Servicing	●		
	Mortgage Loan Origination	●		
	Mortgage Loan Servicing	●		
	Commercial Lending	Complex Loan Origination	●	
Small Business Loan Origination		●		
Small Business Loan Servicing		●		
Commercial Loan Origination		●		
Commercial Loan Servicing		●		
Complex Loan Servicing		●		
Other	Treasury Management	●		
	Merchant Services	●		
	General Ledger	●		

- = Available out of the box
- = Additional Core Module
- = Composable module from ecosystem partner
- = Additional module – different code base, preintegrated
- = Additional Preintegrated Partner Module
- = Additional Module - Different Code Base
- = Additional Partner Module
- = Not available / Not applicable / Additional Module - Non Partner

Source: Vendor RFI

Additional Functionality

Table 5: Functionality

Category	Function	In Production	Supported But Not in Production	Not Supported
Channels	Branch/Teller			
	Digital Banking			
	Digital Onboarding			
	Call Center			
	ATM			
Commercial and Retail Function	Currency Management			
	CRM			
	Data Warehouse			
	eStatements			
	Imaging/ECM			
Cards & Payments	Bill Pay			
	Cards Issuing			
	Payments Engine			
	ACH Origination			
	International ACH Trans (IAT)			
	P2P			
	SEPA			
	Stop Payments			
Risk and Compliance	Asset Liability Management (ALM)			
	Anti Money Laundering (AML)			
	Compliance: Know Your Customer (KYC), OFAC, Patriot Act			
	Fraud Detection			
	Risk Analysis and Reporting			

- = Available out of the box
- = Additional Core Module
- = Composable module from ecosystem partner
- = Additional module – different code base, preintegrated
- = Additional Preintegrated Partner Module
- = Additional Module - Different Code Base
- = Additional Partner Module
- = Not available / Not applicable / Additional Module - Non Partner

Source: Vendor RFI

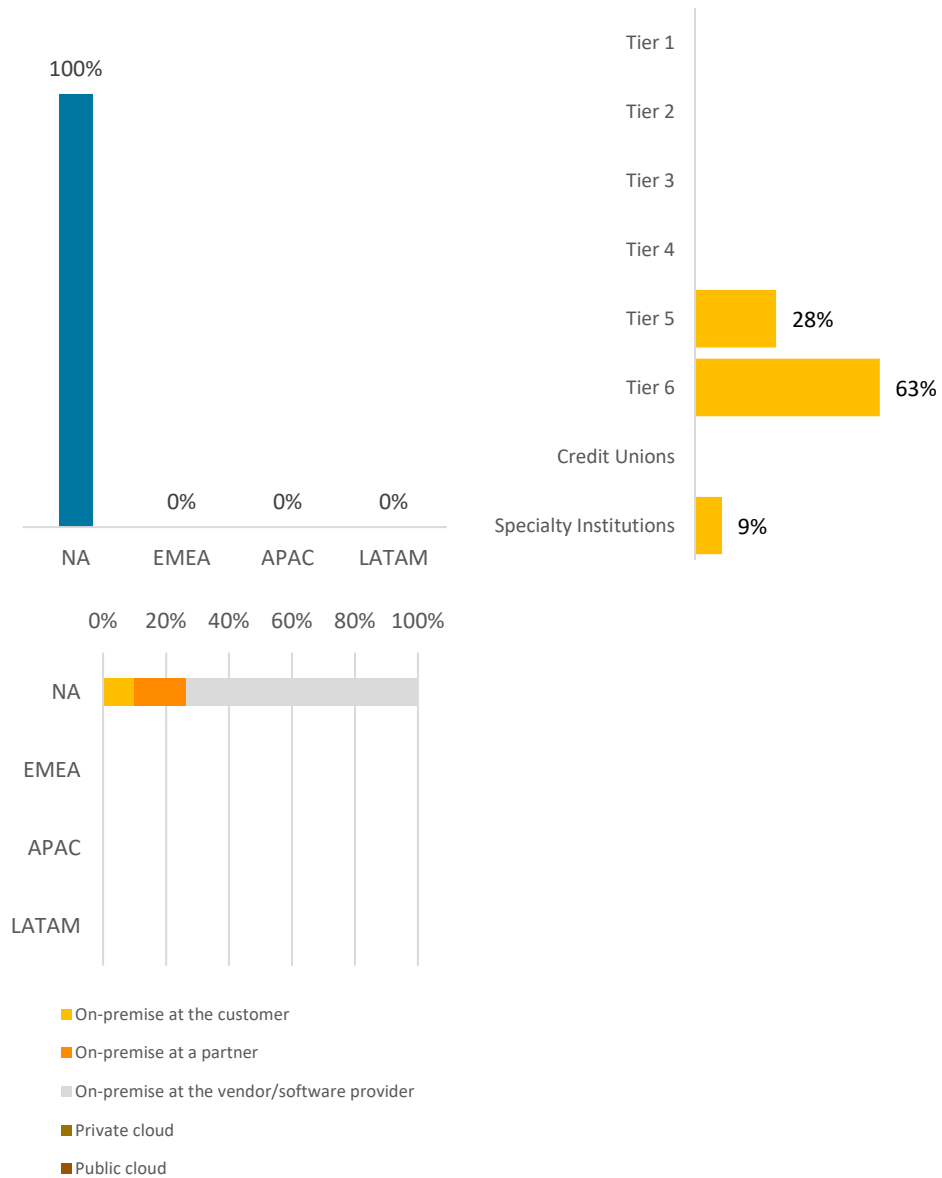
Customer Base

FIS HORIZON has 370 total customers in the US, one in the Asia-Pacific region, and two in Latin America. Sixty-three percent have under \$1 billion in total assets, 28% have between \$1 billion and \$20 billion in total assets, and the remaining customers are specialty institutions (not banks or credit unions). FIS acquired 54 new HORIZON clients during the past two years, and they acquired 74 new clients since Celent's previous assessment.

HORIZON's target market includes commercial, retail, and savings banks in the domestic US and US territories that want a core banking solution with tightly

integrated ancillary surrounds for digital, payments, and electronic funds transfer.

Figure 2: FIS Client Base by Geography, Institution Type, and Deployment



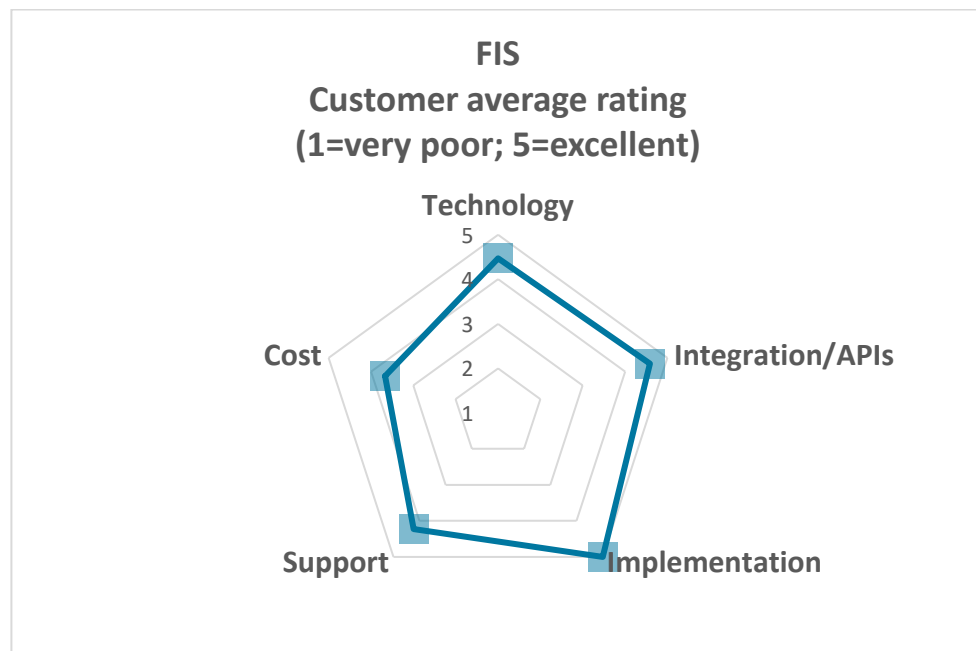
Source: Vendor RFI

Customers deploy the solution on premise, either at their own site (10%), a partner site (16%), or at FIS (74%). The FIS Datacenter manages updates on behalf of their clients. Release installs are managed with automated workflow tools embedded in the HORIZON core. Clients are provided advanced documentation that includes system impact as well as project overviews and operational procedures for adopting new functionality.

Customer Feedback

All clients surveyed have had HORIZON for two to five years. Clients rated FIS favorably overall. Within survey categories, technology was scored the highest and openness of the core and technology was seen as weaker.

Figure 3: Customer Feedback



Source: Vendor RFI

Clients felt the solution integrated most easily with their overall integration and integrated less well with channel applications. Clients have rated all aspects of implementation equally for the vendor. Ongoing system support and overall quality of professional services received the highest score, while customer feature requests heard and responded to was seen as an area of relative weakness.

When asked what they liked best, one client appreciated that the scope of what the system can do is tremendous. Another client appreciated greater flexibility than their previous core system, and another appreciated the user-friendly interface.

Technology

Table 6: Technology Options

Technology Options	Responses
Code Base	C#: 0.25%; Java: 59.75%; Other: 40% (RPG/CL)
Integration Methods	XML (not through web services); HTTP; RESTful HTTP style services; JSON format; Flat files
API Details	<ul style="list-style-type: none"> ✓ The API is documented ✓ External systems can trigger an event in the system which can be responded to by a workflow or business rules system ✗ API management supports local or global standards such as ACORD application creation and rendering ✓ API sample codes are available to clients ✓ API developer portal is available for support and descriptions ✓ API testing portal and the ability to use scripts on website is available ✓ The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs ✓ API version management is available ✓ Access to the APIs is managed and use of APIs tracked by developers ✓ Training in extending the system is offered
Legend: ✓ = Available; □ = Not available	
Source: Vendor RFI	

Table 7: SaaS Capabilities

Elements	Availability
Support a multi-tenant architecture	✓
Type of effort required to update the solution	Evergreen – all clients are on the same latest version
Cadence of upgrades for multi-tenant deployments	More frequent than every 3 months
Deployment approach support elasticity	Yes, within weeks
Current APIs-related strategy	Pre-connected cloud environment (fully connected and ready to use)
Ability of the deployment model to leverage a serverless approach	✗
Ability to enable independent services (microservices)	✗

Elements	Availability
Proportion of the system architected as microservices	Under 25%
Support automation of development and deployment processes (DevOps)	✓
Ability to run and deploy under containers to improve the application deployment	✗
Need for containerization to run in a cloud	✗
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	✓

Legend: ✓ = Yes ✗ = No

Source: Vendor RFI

HORIZON does not support public cloud deployment.

Table 8: Public Cloud Options

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	✗	✗	✗	✗
Amazon AWS	✗	✗	✗	✗
Google Cloud Platform (GCP)	✗	✗	✗	✗
Alibaba Cloud	✗	✗	✗	✗
IBM Cloud / Bluemix	✗	✗	✗	✗
Oracle Cloud	✗	✗	✗	✗
Salesforce Cloud, Force.com, AppExchange	✗	✗	✗	✗
Other	✗	✗	✗	✗

Legend: ✓ = In production; □ = Supported but not in production; ✗ = Not supported

Source: Vendor RFI

As mentioned, most processing is batch with memo post, but all non-monetary processing is performed in real time. For example, processing for loans, mortgages, and general ledger can be done in real time on batch-by-batch basis.

The HORIZON Core Banking Platform relies on the FIS Private Cloud infrastructure to host the user front end of the core to leverage the resiliency and availability for client access to critical functions. The FIS Private Cloud affords the platform the ability to deploy virtual servers quickly and effectively as well as monitor service functionality and performance through multiple tools and, in most cases, react in an automated manner transparent to end users. The FIS Private Cloud for hosted virtual machines is designed to eliminate any single-point-of-failure and across redundant servers, including failover to secondary strategic data centers.

Table 9: Cloud Support

Microservices Architecture	Yes
Stateless (apps can scale independently)	No
Container Orchestration (Kubernetes)	No
Service Mech Support (e.g., Istio)	No

Source: Vendor RFI

Data & Integration

Table 10: API Integration Details

Function	Approach
Approach to Integration	<p>HORIZON APIs are designed to eliminate the need for costly custom interfaces. APIs reduce implementation time, standardize the process for interfacing applications, and enable the standard interface environment to communicate in real time to HORIZON while maintaining data integrity. The interactive nature of HORIZON APIs means that an external user/solution can request real time information from HORIZON and receive interactive edit and response messages to their requests as if the user were operating within the native HORIZON environment. HORIZON is in-process of developing kiosk/video teller integration with Diebold, Glory, and NCR kiosks using a combination of HORIZON Teller and HORIZON Kiosk APIs. This use of APIs will be marketed as pre-integrated to the kiosk hardware providers, bringing speed for those banks who are entering this exciting market that expands branch services. HORIZON XChange is XML middleware that also provides real time, two-way communication via a secured Socket Port. HORIZON additionally uses batch extracts for large amounts of information that are better suited to a secure batch rather than real time retrieval of large amounts of data.</p>
% of Platform Exposed as APIs	35
API Management	<p>FIS Code Connect is an API platform that provides a central marketplace or access point to expose and manage all FIS solutions via APIs. It is built on top of WSO2 API Management platform using industry-standard security frameworks such as OAUTH2.</p>

Source: Vendor RFI

Configuration

Through the bank control records (BCRs) a bank can create new products and services without the need for programming or even services through the data center.

HORIZON provides the ability for banks to design customer-level relationship pricing that incent the customer with an interest bump to encourage customers to hold more balances and services with the bank. Related functionality enables the creation of promotional interest programs and behavior interest rewards and/or service charge concessions.

Table 11: Continuous Integration (CI) and Upgrading

Support for CI	Yes
Support for Continuous Delivery or Productization	Yes
CI Tools	HORIZON utilizes a combination of Azure DevOps along with custom written tools to implement continuous integration and delivery within its development environments. These tools encapsulate automated environment updates along with static-code quality and software security scans.

Source: Vendor RFI

Implementation, Support, and Pricing

Table 12: Implementation, Support, and Pricing

Typical Implementation Team Size	30 to 40
Location of Employees	FIS has employees located globally
Average Time to Implementation	<u>Initial Implementation</u> : 7 to 12 months <u>2nd and subsequent line of business</u> : 1 to 3 months <u>2nd and subsequent states/jurisdictions</u> : 1 to 3 months
Pricing Models	Term license, Enterprise license, Subscription-based license

Source: Vendor RFI

FIS: IBS



FIS is a public company headquartered in Jacksonville, Florida. It is a leader in technology, solutions, and services, with presence globally across more than 50 countries in North America, Latin America, Europe, and Asia Pacific regions. The company provides a broad array of capabilities across the banking, merchant, and capital markets sectors through an array of mission-critical platforms and processing solutions to meet industry-specific needs of different segments and client types.

Within the banking sector, FIS offers multiple core banking systems, providing a range of platforms for different types and sizes of institution. IBS (Integrated Banking Solution) is a banking platform designed to support institutions looking for a scalable platform operated on a managed basis within the US market. It is particularly suited to institutions in the community and regional banking market with a scalable platform supporting clients up to \$200 billion in assets. Within FIS, there is a large consulting, onboarding, and professional services team with great experience and deep expertise focused on driving client growth, efficiency, and market responsiveness.

Table 1: FIS Snapshot

Company Info	
Year Founded	1968
Number of Employees	69,000
Revenues (USD)	14.5 billion
Financial Structure	Public company NYSE: FIS
Product Info	
Product Name	IBS
VendorMatch Link	[FIS IBS]
Year Originally Released / Deployed	1980 / 1980
Current Release /Date of Release	IBS.2023.1.0219 / February 2023

Target Market	IBS is a hosted core processing system easily scalable to meet the needs of banks from \$500M up to \$200B in assets.
Installed Base	164
Notable Clients	Northern Trust, City National Bank, Synovus Bank, Wintrust Financial, East West Bank
Vendor Events	The vendor offers an annual user conference or customer event.

Source: Vendor RFI



IBS delivers a rich set of business capabilities for community, mid-tier, and large regional banks to support, retain, and grow their retail and commercial customer base.

— FIS IBS

Platform Summary

IBS is arguably the CBS platform that created the modern bank IT outsourcing business. The origins of IBS date back to the early 1960s when Milwaukee-based Marshall & Ilsley Corporation set out to leverage its investment in a mainframe-based account processing system to serve the processing needs of its correspondent banks. While IBS has been continually extended and architecturally refined over the years—to the point where it now features more than *40 million* lines of code—it still retains its original character as a COBOL-based system built for a highly scalable outsourcing environment.

Aside from the continual addition of new features and functionality to meet the needs of a wide range of banks, the “secret” to the platform’s historic success is its highly parameterized structure, enabling banks to turn features “on” and “off” while allowing for fine-grained system control of the banking accounts services. This, in turn, allows FIS to run a single instance of IBS to serve the processing needs of its several hundred banks.

Key Features

IBS operates on a single processing platform to manage and maintain deposit, loan, and customer account portfolios. It is parameter-driven with a comprehensive capability for defining product attributes and processing options. The core platform is surrounded by an integrated sales, origination, and servicing suite supported by a rich array of marketing, business analytics, and relationship management capabilities. Furthermore, IBS is deeply integrated with a broad array of FIS solutions spanning capabilities such as digital banking, payments, fraud, image, document management, and many more.

Table 2: Core Component Snapshot

- = Base Core Module (Available out of the box)
- = Additional Core Module
- = Composable module from ecosystem partner
- = Additional Module – different code base, preintegrated
- = Additional Preintegrated Partner Module
- = Additional Module - different code base
- = Additional Partner Module
- = Not available / Not applicable / Additional Module - Non-Partner

Module Name = In Production <i>Module Name</i> = Supported but not in
--

Deposits		
● Retail Deposits	● Commercial Deposits	
Retail Lending		
● Credit Card Originations	● Consumer Loan Origination	● Mortgage Loan Origination
● Credit Card Servicing	● Consumer Loan Servicing	● Mortgage Loan Servicing
● HELOC Origination	● HELOC Servicing	
Commercial Lending		
● Small Business Loan Origination	● Commercial Loan Origination	● Complex Loan Origination
● Small Business Loan Servicing	● Commercial Loan Servicing	● Complex Loan Servicing
Other		
● Treasury Management	● Merchant Services	● General Ledger







Source: Vendor RFI

The IBS product management team works closely with IBS business executives to prioritize new features based on compliance requirements, sustainability requirements, client commitments, and strategic initiatives. The work is prioritized as part of a three-month program increment.

Current development plans include a program to refresh the IBS user interface (UI) to utilize the most current FIS UI presentation framework. This will provide a responsive UI (supporting both traditional desktops/laptops as well as tablet form factors) while also allowing the applications to operate across various web browsers.

In terms of R&D expense over the past two years, FIS typically reinvests around 7–8% of global revenue in R&D of total revenue attributed to this solution. The vendor offers an annual user conference or customer event. IBS also supports a client community through regional user groups and national client advisory boards.

Table 3: Key Features

1		Architecture Overview	The IBS platform is a mainframe-based core account processing platform with integration to many other technologies. Java-based APIs, BaaS, and banker/client interfaces. Oracle and Java systems for complete customer views and ETL for data warehousing capabilities.
2		Support for Cloud	IBS is a hosted platform in the FIS Private Cloud, so it does not provide cloud support in the traditional sense. However, it can achieve some benefits of a cloud environment, such as scalability and cost optimization.
3		APIs and Integration	FIS's strategy is to API-enable all its products and capabilities, exposed via its FIS Code Connect API Gateway platform and accessible via the Internet or private network. Where applicable, data can also be delivered via real time events, with both Webhooks and Kafka supported. Batch integration is offered for other suitable use cases.
4		System Flexibility	IBS is highly configurable by the client, which makes changing the system a simpler task. For example, new products can be established by the bank without FIS intervention, using configuration tools. If new functionality is needed that is currently not available, the IBS change migration system and support structure surrounding it ensure code changes are made without disruption to clients and their unique configurations.
5		Real Time Capability	IBS is a batch system which leverages intraday memo posting. While not event-driven, it can create events in real time within seconds of the underlying deposit, loan, customer, or card activity occurring.
6		Data Models	The data model is custom to IBS's core account processing platform. The client cannot change the core data model. The client would request an enhancement and IBS developers would make the changes. FIS does offer their clients the ability to capture extended data in the Customer Management solution as well in the Branch/Sales and Service solutions through an advanced authoring and configuration tool. This is offered as a self-service capability.

Source: Vendor

ABC SUMMARY**Advanced
Technology****Breadth of
Functionality****Customer
Base****CELENT OPINION**

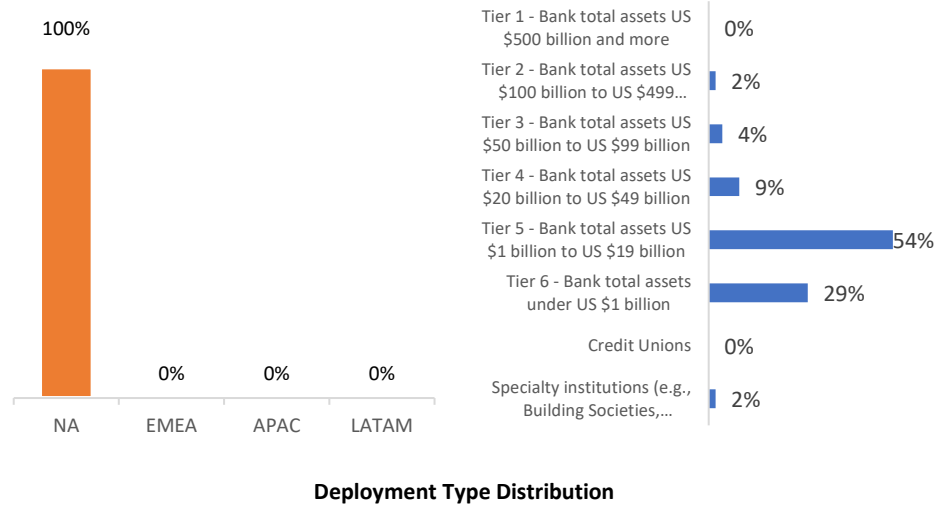
IBS continues its strong position as a hosted universal core banking platform with a long history serving the broad functional needs of community banks to large regionals up to \$200 billion in assets. While the platform itself dates back many years, FIS has continued to modernize it to provide to banks a rich, scalable, and flexible platform. IBS sets itself apart with the ability to scale up and down to the functional needs of a variety of different institution types, as well as the efficiencies achieved through its hosted delivery model in the FIS Private Cloud. It also provides a significant amount of parameterization out of the box to allow institutions, even in a hosted environment, to tailor the platform to their needs.

IBS is surrounded by some of FIS's enterprise technology assets and integrated through FIS Code Connect APIs, significantly extending and enhancing the value of the platform. Banks looking for public cloud capabilities on more modern programming languages might explore other options, but those looking for a secure, reliable, and parameterized system with significant functional coverage will find IBS more than ready.

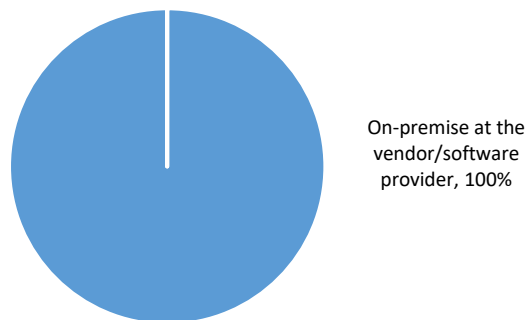
Customer Base

FIS has 164 total customers globally.

Figure 1: FIS Client Base by Geography, Institution Type, and Deployment Mode



Deployment Type Distribution



Source: Vendor RFI

Platform Details

The IBS platform is a mainframe-based core account processing platform with integration to many other technologies. Java-based APIs, BaaS, and banker/client interfaces. Oracle and Java systems for complete customer views and ETL for data warehousing capabilities.

Technology details for IBS are provided in Table 4.

Table 4: Technology Options

Code Base	Core technology: .Net: 1%; C: 1%; Java: 30%; JavaScript: 5%; Other (COBOL is the main language used for the core account processing platform.): 63%
Databases	DB2, Oracle, Sybase
Integration Methods	<p>Web services; XML, not through web services; HTML; HTTP; RESTful HTTP-style services; JSON format; MQSeries, JMS, or similar queue technology; Custom APIs; Flat files</p> <p>Public API integrations: Not applicable</p> <p>FIS provides extensive consulting and professional service offerings to support clients with open API or event-based integrations.</p>
Deployment Models	<p>Private cloud</p> <p>IBS is a fully outsourced solution that is run within the FIS Private Cloud. Therefore, IBS clients do not need their own technical architecture or staff to support. It is multi-tenant and highly scalable.</p> <p>FIS also offers clients a managed IT service where they can extend what they run and support in their FIS Private Cloud to include other non-FIS solutions that the client may run on premise/in house today. This helps clients to further alleviate their IT support costs.</p>
Public Cloud Options	None

Source: Vendor RFI

The platform operates on batch basis, although it supports memo post. While not event-driven, IBS can create events in near real time spanning deposits, loans, customer, and card activities.

Table 5: Cloud Support

Microservices Architecture	No
Stateless (apps can scale independently)	No
Container Orchestration (Kubernetes)	No

Service Mesh Support (e.g., Istio) No

Source: Vendor RFI

Additional Functionality

Table 6 shows IBS’s functionality and production status of key features for core banking systems.

Table 6: Ancillary Modules Support

- = Available out of the box
- = Additional Core Module
- = Composable module from ecosystem partner
- = Additional Module – different code base, preintegrated
- = Additional Preintegrated Partner Module
- = Additional Module - different code base
- = Additional Partner Module
- = Not available / Not applicable / Additional Module - Non Partner

Module Name = In Production | *Module Name* = Supported but not in production

Channels		
● Branch/Teller	● Digital Banking	● Digital Onboarding
● Call Center	● ATM	
Commercial and Retail Function		
● Currency Management	● Imaging/ECM Warehouse	● Data Layer (data lake, data streams, etc)
● CRM		● Data Warehouse
Cards & Payments		
● Bill Pay	● Payments Engine	● ACH Origination
● Card issuing	● P2P	● International ACH (IAT)
X SEPA	● Stop Payments	
Risk and Compliance		
● Asset Liability Management (ALM)	● Anti Money Laundering (AML)	● Compliance: Know Your Customer (KYC), OFAC
● Fraud Detection	● Risk Analysis and Reporting	

Source: Vendor RFI

Data and Integration

FIS’s data model is proprietary.

Table 7: API Integration Details

Function	Approach
Approach to Integration	FIS's strategy is to API-enable all its products and capabilities, exposed via its FIS Code Connect API Gateway platform and accessible via the Internet or private network. The IBS core is fully API-enabled today. Where applicable, data can also be delivered via real time Events/Webhooks and Kafka is supported. Batch integration is offered for other suitable use cases.
% of Platform Exposed as APIs	100
API Management	Yes

Source: Vendor RFI

Configuration

IBS and their entire client base are always using the most current version. New product capabilities are introduced regularly—usually every three months and sometimes even monthly. There is one code base that is running for all clients in a multi-tenant environment within the FIS Private Cloud. The change tools and backout procedures ensure code is current and functioning properly.

IBS is highly configurable by the client, which makes changing the system a simpler task. For example, new products can be established by the bank without FIS intervention, using configuration tools. If new functionality is needed that is currently not available, the IBS change migration system and support structure surrounding it ensure code changes are made without disruption to clients and their unique configurations.

Bank Control and Enterprise Org and Product are their product administration mechanisms. Clients use these tools to set up new products and change existing products that align with their specific institution's needs. Those changes are mostly self-service and require little or no involvement from FIS. Most third party integration requires the institution to work with IBS and the third party vendor to implement the necessary integration; however, this has decreased dramatically with the launch of FIS Code Connect and their marketplace of Open APIs in late 2018 and Events in 2020. Clients are now enabled with a developer tool kit that radically simplifies their ability to integrate third party solutions with the IBS core platform.

Table 8: Continuous Integration (CI) and Upgrading

CI/CD	
Support for CI	Yes
Support for Continuous Delivery or Productization	Yes
CI Tools	FIS has many tools and environments to do continuous development and integration. Developers and teams across the company can develop and test together or apart in many different systems.

Source: Vendor RFI

Pricing

Table 9: Pricing Models

Pricing Models Available	Not provided
Factors Used to Determine Pricing	<i>Usage-based factors:</i> Not provided <i>Tier-based factors:</i> Not provided

Source: Vendor

FIS: MODERN BANKING PLATFORM

This original profile for the Retail Banking Core Systems: Next-Gen Core Banking Edition was in a slide format. Content for the FIS Modern Banking Profile has been edited to fit into a document format.

Business Overview

Table 10: Business Overview

Name	FIS	Product Name	Modern Banking Platform (MBP)
Founded	1968	Original Release	2018/2019
HQ	Jacksonville, FL	Clients	10-20
Website	fisglobal.com	Platform summary	Product Core with enterprise services
Revenue	\$10bn	Primary deployment model	Private Cloud / Public Cloud
Employees	55,000	Primary cloud partner	Azure

Source: Celent

Platform Overview

FIS is a leading financial services technology provider, known particularly as one of the top US providers in banking and payments, but with a global presence across over 130 countries as well as across multiple lines of business in financial services. As such, it is one of the main incumbent core banking system providers in the US offering several platforms, but it also has a significant core banking client base internationally, notably in UK, Europe, Oceania, and SouthEast Asia.

While FIS still offers multiple cores, MBP (Modern Banking Platform) is its next-gen core platform, which it has built ground up as a 100% Java-based, API-first platform with component-based architecture (rather than refactoring or re-architecting an existing core). The MBP platform provides a set of flexible, scalable, and configuration-driven core capabilities across both retail and commercial deposits, as well as retail lending, supported by a set of enterprise services (and ancillary FIS products), although it is a completely open platform able to integrate into existing systems or partners. While MBP has supported direct bank, neobank, and side-core adoption models, its component approach makes it notably also suited for larger banks looking to progressively modernize their core(s), whether older FIS

cores or not. While developing functional breadth since initial launch MBP has been primarily focused on the North American market, however, it is now expanding its international reach, with Oceania, Southeast Asia, and the UK as key target regions.

Figure 1: FIS MBP Target Markets

TARGET MARKETS	Asia Pacific			Europe				MEA	Americas				
Regions	CA	SEA	OC	EE	NE	SE	WE	AF	ME	NA	CAC	SA	
Tiers	Tier 1		Tier 2		Tier 3		Tier 4		Tier 5		Tier 6		
Institution types	Traditional banks		Neobanks		Fintechs		EMIs		Specialty	Other			
Line of business	Retail		SME		Corporate		BaaS		Other				
Key markets Tier 1-4 banks in US, and Tier 1-2 in SE Asia/ Oceania													

Source: Celent

Position against competitors and philosophy

As an already established core provider, FIS’s approach is to combine use of modern cloud-native technology (with microservices and event-driven architecture) with rich functionality developed leveraging its extensive experience as a core provider across multiple institution types and business lines, but provided as extensible, configuration-driven capabilities.

Targeting larger banks and large fintechs, the platform is cloud enabled, allowing clients to choose to run in public cloud, FIS data centers, or their own private cloud infrastructure while still benefiting from cloud-like scalability and continuous delivery deployment approaches. It also offers choice in build approach, with model bank frameworks for more commoditized products, baselined products for increased speed to market, and full configurability and extensibility across a rich product set for larger banks with complex product needs. MBP is also supported with enterprise service components (such as customer, catalog, pricing, alerts, and reporting) that can be used alongside existing systems to facilitate progressive renovation and time to value, as well as FIS’s fully optional broader portfolio to meet end-to-end requirements.

Figure 2: FIS MBP Marquee Clients

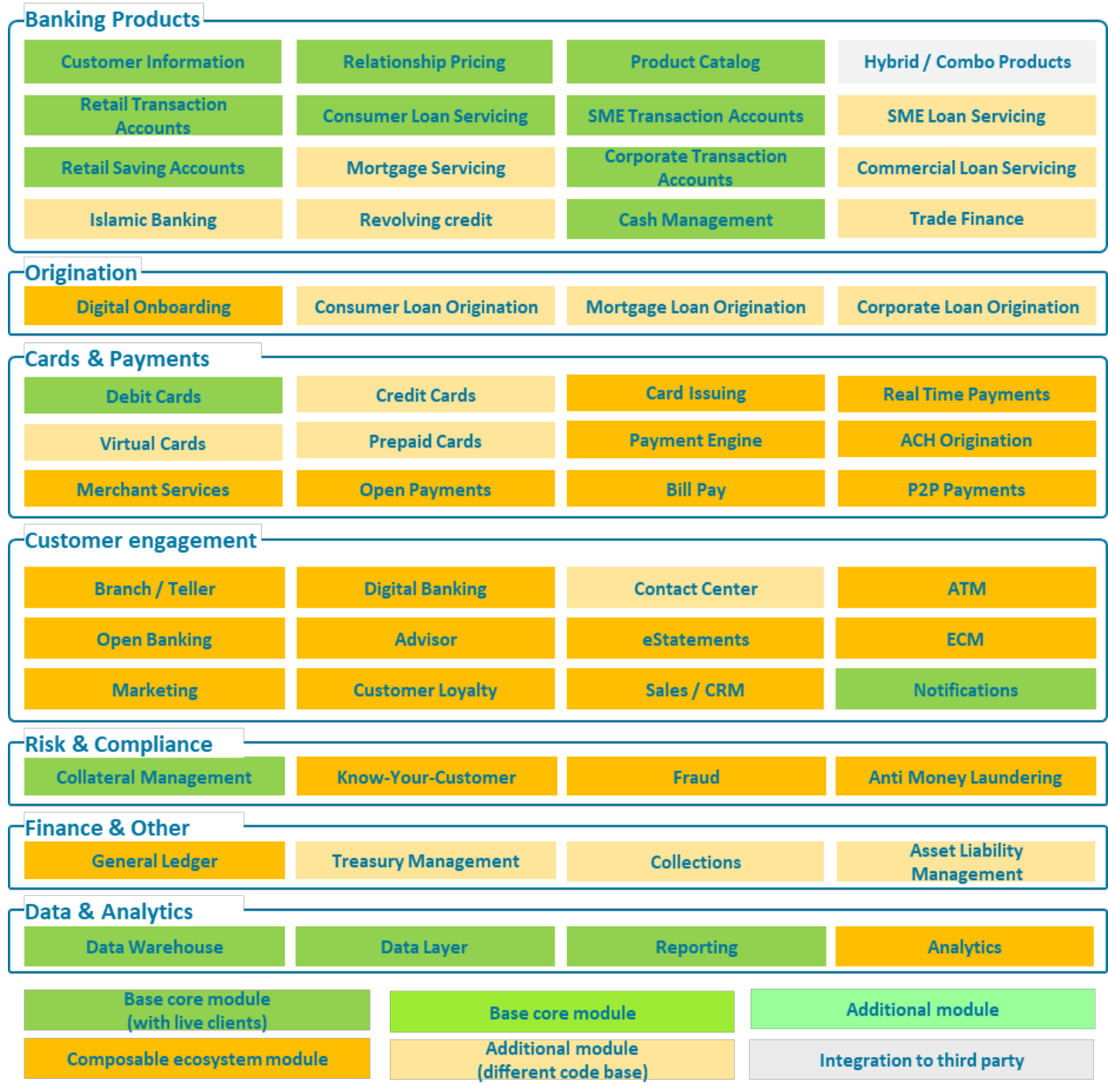


Source: Celent

Functional Details

FIS Modern Banking Platform is a product retail and commercial banking core, supported by enterprise components.

Figure 2: FIS MBP Functional Coverage Map



Source: Celent

Functional Differentiators

1. Component-based architecture: configuration build, extensible configuration, coded plug-ins
2. Enterprise product and pricing, with a Product Factory and Management providing a rules-based, parameter-driven, product management component to easily construct and manage products
3. Model Bank Framework—providing market baselined preconfiguration of commoditized products
4. CAPE (Common Arrangement Processing Engine), which comprises FIS's suite of reusable functional capabilities, including:
 - Retail Deposits, providing processing of retail liability products including Savings, Deposits, Time Deposits, checking accounts, and regulated savings products such as IRAs and ESAs
 - Commercial Deposits, supporting commercial deposits, time deposits, checking, savings, and MMDA, with facilities for onboarding, sweeping, and cash management
 - Retail Lending, providing processing of retail asset products including term loans and Lines of Credit together
6. Enterprise customer 360, allowing centralized customer management supported by data and insight
7. Real Time Data Hub—manages all data coming in and going out of the platform securely in real time
8. Compliance—used to comply with various regulators in global jurisdictions
9. Enterprise Collateral Management—a real time collateral management solution covering collateral booking, processing, valuation, revaluation, and LTV positioning
10. Multi-entity design to support complex need of large bank structures

Road Map Priorities

1. Extend depth & breadth of commercial deposits, including complex sweep processing, multi-currency, IOLTA/IOTA, controlled disbursement, and integration for Positive Pay, account reconciliation, and liquidity management
2. Expand functional capabilities for retail and commercial lending, such as balloon notes, cash reserve, convenience lines, expanded delinquency processing, and enhanced billing/payments
3. Continued expansion of capabilities to allow standalone implementation (for side-core) approaches, and for end-to-end capabilities with MBP and

ancillary components, including incorporation of data quality integration into enterprise customer, enterprise alerts supporting public cloud, and US Federal regulatory changes

Technical Overview

FIS Modern Banking Platform is a cloud-native, next-generation core banking platform built on a microservices-based, API-first, event-driven, open-integration, and componentized architecture. Each component has an n-tier architecture, with the UI or presentation being based on access through thin client browser or through APIs (REST and SOAP). The application layer is built predominantly on Java and utilizes a relational database to store and process data.

Table 2: FIS MBP Platform

Code Base	Java
Process Type	Real time event-based
Batch Support	Certain bank-induced transactions can be scheduled to run at a specific time, such as certain fees and charges, interest calculation, etc. The analytics platform can integrate into data sources in batch (multiple batches a day) or real time.
Core Code Modification	Possible, though not common
Interface	The Modern Banking Platform provides a browser-based back-office UI that can be utilized by the internal users of the financial institution for configuration and administration purposes as well as for inputs or inquiries on transactions or data in the system.

Source: Celent

Table 3: FIS MBP Data

Databases Supported	NoSQL (Hive), Oracle, PostgreSQL
Data Schemas	The data model is based on Financial Services Data Model.
Polyglot / Temporal Data	Not supported / Not supported
Extending Data Model	Physical data model is extended only by FIS. The logical data model is extended by the client using the administrative panel, where it is possible to define new fields of objects such as Customers, Arrangements, Transactions, etc.
Data Model Governance	Modern Banking Platform is designed in such a way as to abstract the logical data model from its physical representation. Adding a new product that differs from existing ones does not result in alteration of table definition. FIS can hold responsibility to physical data model definition and let client be responsible to some extent for the logical data model.

Source: Celent

Table 4: FIS MBP Integration

Approach to Integration	FIS Modern Banking Platform promote online synchronous using API or asynchronous integrations using Event Broker. The central point for the API integration is FIS Code Connect.
Integration Methods	Web Services, RESTful HTTP style services, JSON format, MQSeries, JMS or similar queue technology, Custom APIs, flat files.
% Exposed as APIs	100%
API management	All MBP API are exposed to external world using FIS Code Connect. FIS Code Connect is API management platform based on WSO2 solution. FIS Code Connect is a central access point for FIS to expose and manage all FIS solutions via APIs.

Source: Celent

Customer Base and Deployment Model

The target market for Modern Banking Platform is banks engaging in core modernization initiative strategies to launch a side-core bank or offer new product types, as well as pure digital-only banks that may be existing banks or de novo startups.

Table 5: Customer Summary

Client Presences	MBP has significant client base now in Tier 1-4 North American market, particularly in Tier 2 segment, as well as with several specialty institutions.
Client Growth	MBP has seen steady growth over last 2 years across Tier 1-4 segment in US, with recent international deal activity
Institution Types	Primary focus is on traditional banks, but MBP does support direct banks and major nonbank fintechs.

Source: Celent

Table 6: Installations by Size (Assets)

Tier One: \$<500bn	✓	Tier Five: \$1-\$20bn	
Tier Two: \$100-\$500bn	✓	Tier Six: <\$1bn	
Tier Three: \$50--\$100bn		Credit Unions	
Tier Four: \$20-\$50bn	✓	Specialty Institutions	✓

Source: Celent

Table 7: Installations by Region

Asia Pacific	Americas	Europe	MEA
Central Asia	North	✓ East	Africa
South East Asia	Central	North	Middle East
Oceania	✓ South	South	
		West	

Source: Celent

Cloud Support

- FIS MBP is cloud native by design and currently certified to run on Microsoft Azure (with Google and IBM Cloud to come soon).
- MBP is provided as a fully managed SaaS offering (managed end-to-end by FIS) in Azure Cloud where customers simply consume services via APIs. MBP SaaS offering is hosted within two Azure regions, each of which comprises three availability zones—six data centers in total, each with its own networking.
- Clients can deploy on private cloud or public cloud.

Configuration, Localization, and Partnership**Approach to regulatory support and localizations in new markets**

- The system is fully compliant with US banking regulations and in the process of having UK compliance features built in. In addition, the system is compliant with many EU regulations, such as GDPR.
- Country-specific regulations will be provided through a software extension layer where regulatory changes can be managed and isolated from the base code. Through these extensions, FIS provide the means for banks in different regions and countries to comply with the local regulatory environment.

Platform Configuration

- FIS uses a mix of industry-standard development tools as well as parameter-driven configuration to effect changes within the system.
- The platform provides a set of flexible, scalable, and configuration-driven core banking features built with API driven open access. Features are extensible by configuration, coded plug-ins, or both.

Product/Pricing Configuration

- FIS' Modern Banking Platform offers a product factory to configure banking products and services resident with the platform. A partner solution is available for banking institutions that need an enterprise product catalogue and pricing engine that spans disparate product processors as well as non-banking products.

- While every core has its own account types, transaction types, and processes, almost all share a common set of product and pricing definitions, account definitions, charge processing, transaction processing, and accounting patterns. FIS supports these parameters.

Table 8: Product and Pricing Configuration

Enterprise-wide product designer	✓	Regional pricing	✓
Centralized product repository	✓	Analytics on top of pricing	
Customer-specific pricing	✓	Promotions on products and services	✓
Pricing based on households	✓	Rewards programs on products	

Source: Celent

Implementation Partners (non-exhaustive)

- Accenture
- EY

Fintech/Functional Partners (non-exhaustive)

- Kore.ai
- IBM
- Microsoft
- Nice Actimize
- Precisely
- Savana
- Zafin

Cloud-Native Tools

- Azure (Azure Monitor, Azure Application Insights, Azure Storage, Azure Event Hub, Azure Networking)
- Bitucket
- Kubernetes
- Harness
- PostgreSQL

Implementation Approach

FIS has experience with various client adoption models, including direct bank or side core programs, as well as large scale core modernization programs.

MBP implementation team has a standard end-to-end delivery methodology that includes the following:

- **Discovery:** Assess both the client’s and FIS’s readiness to kick off an MBP core transformation program. Opportunity to support a client proof-of-concept via a sandbox environment based on client need/desire.
- **Implementation:** Onboard client to Modern Banking Platform utilizing standard implementation methodology, which includes the following phases and key activities:
 - **Planning & Governance:** Kick off program, establish governance and routines, environment stand-up, setup & training on Model Bank capabilities
 - **Defining:** Baseline client scope, conduct client workshops to determine MBP configuration, assess required reports and extracts, capture conversion requirements
 - **Designing:** Perform MBP & Ancillary solution design, review client target ecosystem & non-functional requirements, consult on MBP data architecture consumption, perform conversion data mapping (if in scope)
 - **Testing:** Refine test strategy & conditions, align on joint test reporting with client, execute testing (FIS & Client), perform technical mock conversions & client dress rehearsal, perform go-live readiness reviews
 - **Closing:** Perform production verification, support production incident triage, remediate fast-follower issues/defects, automate remaining test scripts, transition to production support

Table 9: Initial Install

Typical implementation timing	Varies by client strategy De Novo/Side Core: 7–12 months (F&F) Full Core Modernization: Varies
Team size and composition	15–25 (varies based on program scope)
Implementation approach	FIS has a standardized methodology for Implementation programs.
Typical staffing composition	Bank: 30-50%; Vendor 30-50%; External Services: 0-25%
Migrations	MBP supports direct bank, side core, and core modernization programs, with experience in supporting migrations with several Tier 2 US banks.

Source: Celent

Key Benefits

- Future-Proof Design—evergreen model to prevent creation of future legacy.
- Cost-Effective Changes—secure, resilient, dynamically scalable, rapid deployable, and cost-effective, with configurable product design
- Functionally-Rich Components—model bank products available across both retail and corporate banking
- Agility and Flexibility—quicker and more nimble innovation and differentiation
- Powerful Core Processing Engine—ability to support complex and high-volume requirements of top-tier institutions
- Real Time Data Processing—straight-through processing with real time data hub to support customer personalization and fraud prevention
- Extensive Marketplace of Solutions—enhanced by FIS’s ancillary and marketplace solutions to provide choice of broad functionality
- Lower Risk Upgrades—continuous delivery ongoing upgrade model
- Rapid Implementation—from whiteboard to production in days, not months.

Celent Evaluation

FIS MBP offers advantages of next-gen architecture with experience and expertise of an established core provider

MBP is relatively unusual in being a next-gen core built by an incumbent core provider that has been built from the ground up, rather than being a refactored/re-architected version of an existing core. This had short-term disadvantages for FIS, in that MBP took significant time and resources to construct, but it has now reached a level of maturity where MBP offers the attractive combination of modern architecture and design principles with the functional depth and breadth of service capabilities of a large, established provider.

In MBP’s sweet spot are mid-large banks looking to create direct banks to tap into new market opportunities or transform, seeking a modern platform with rich functionality that can support the complex needs of mid-larger banks across retail and corporate banking and offer a choice of modernization path. This would certainly include banks already using some of FIS’s older platforms (particularly Systematics, although potentially also Profile), but MBP has matured enough to offer a modernization route for most customized cores dating back to the ’70s, ’80s, or ’90s. While this could support Tier 1 institutions, it makes most sense for institutions looking to work with vendors for capability rather than build themselves. While MBP has but recently begun targeting institutions outside the US, non-US banks should consider it, given the credibility of FIS’s global reach and strength.

ABC SUMMARY



**Advanced
Technology**



**Breadth of
Functionality**



**Customer
Base**

CELENT AWARDS

Luminary

AMERICAS

Technology standout

MID-LARGE BANK

Noteworthy solution

**SMALL AND DIGITAL BANK,
& SPECIALTY INSTITUTION**

X CELENT
Advanced Technology 2024
AMERICAS

X CELENT
Breadth of Functionality 2024
AMERICAS

FIS: PROFILE



FIS is a public company headquartered in Jacksonville, Florida. It is a leader in technology, solutions, and services, with presence globally across more than 50 countries in North America, Latin America, Europe, and Asia Pacific regions. The company provides a broad array of capabilities across the banking, merchant, and capital markets sectors through an array of mission-critical platforms and processing solutions to meet industry-specific needs of different segments and client types.

Within the banking sector, FIS offers 11 core banking systems, providing a range of platforms for different types and sizes of institution. Profile is one of its leading platforms able to serve the global banking market, with presence in both the US and international markets, and a range of banks tiers, including Tier 2 as well as mid-tier segments. Overall, FIS has close to 1,400 core system employees available to provide professional services and client support for the Profile core banking solution. In North America, there are 221 core system resource employees supported by a number of additional FIS-leveraged resources.

Table 1: FIS Snapshot

Company Info	
Year Founded	1968
Number of Employees	62,847
Revenues (USD)	\$12.6 billion
Financial Structure	Public company NYSE: FIS
Product Info	
Product Name	Profile
VendorMatch Link	[FIS Profile]
Year Originally Released/Deployed	1988 / 1988
Current Release and Date of Release	Version 7.6.6 / 2022
Target Market	Profile is a global core banking solution targeted at large financial institutions as well as digital banks.

Installed Base	159
Notable Clients	Ally Bank, RBC, American Express, ING N.V., Sainsbury PLC, Scottish Widows Bank PLC
Vendor Events	The vendor offers an annual user conference or customer event.
Source: Vendor RFI	



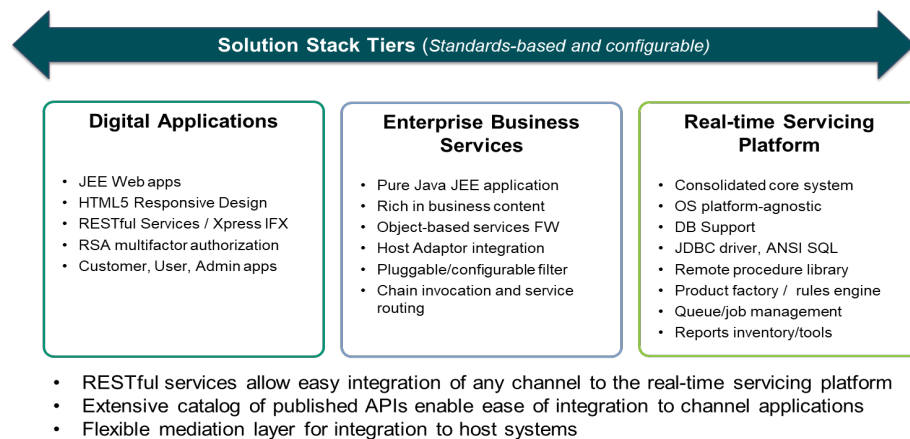
FIS Profile is and will continue to be one of FIS’s primary core banking solutions. Profile is currently in production use at close to 160 financial institutions in more than 30 countries around the world. Its client base includes traditional and non-traditional banks in the retail and commercial banking space, servicing deposits and loans, and powering account volumes of all sizes—from a niche client with less than 1,000 accounts to a mega bank processing over 80 million accounts on a single instance of the Profile platform. Most notably, it is the core solution behind the top digital banks in North America today.

— Matthew Lessig, Vice-President & General Manager, Profile

Platform Summary

Profile is a real time, always-on, multicurrency, deposit and loan core banking system developed as a single integrated solution. It contains an extensive inventory of thousands of configurable features that are designed to meet the product needs of retail and commercial banking organizations. It supports an installed base of 159 financial institutions in more than 30 countries around the world. It has a diverse client base that includes de novo start-ups to mid-sized banks and top-tier global banks. It has a long-term track record of proven scalability and high availability.

Figure 1: FIS Profile IT Architecture



Source: Vendor

Celent reviewed Profile version 7.6.2 (November 2018) in its previous report and version 7.6.5 (2021) for this report. Since that time, FIS has continued to enhance the platform. The most recent releases addressed changes needed for US federal regulatory changes inclusive of annual tax changes, additional security scans which resulted in improved security features, GT.M NoSQL database enhancements, improving efficiencies and performance, as well as functional enhancements covering Sheltered Harbor, overdraft limits, and IBAN account number format changes.

Key Features

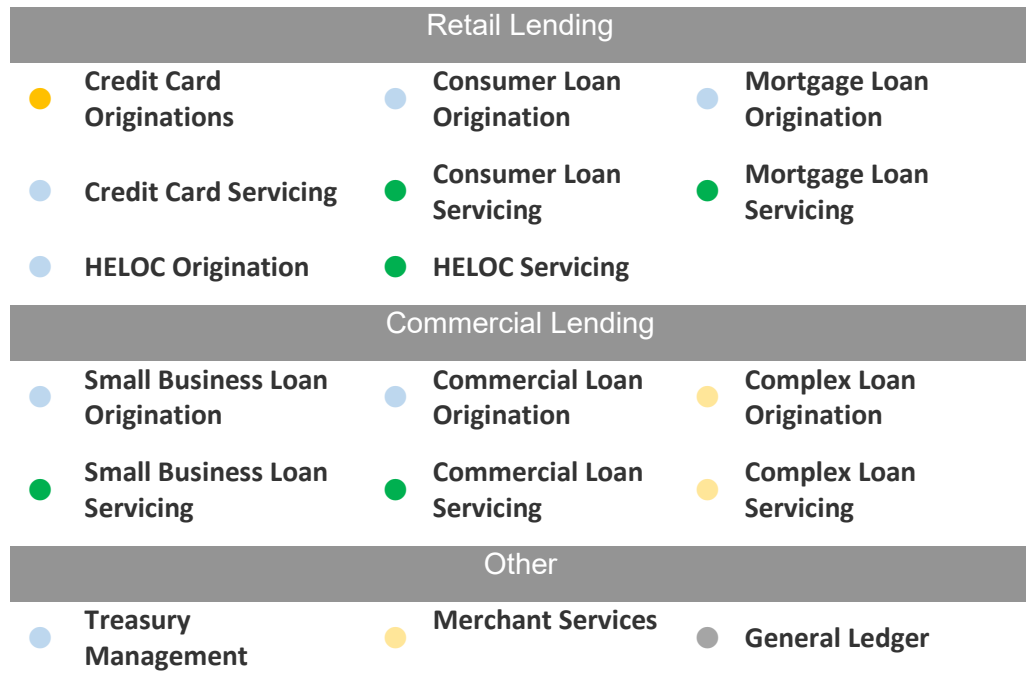
Profile’s key features include real time processing of financial and non-financial transactions, a highly configurable product factory that covers the spectrum of deposit and loan products globally, database extensibility without coding, and a robust report writer that allows for the creation of new reports and changes to existing reports to be made by business analysts rather than developers.

Table 2: Core Component Snapshot

- = Base Core Module (Available out of the box)
- = Additional Core Module
- = Composable module from ecosystem partner
- = Additional Module – different code base, preintegrated
- = Additional Preintegrated Partner Module
- = Additional Module - different code base
- = Additional Partner Module
- = Not available / Not applicable / Additional Module - Non-Partner







Module Name = In Production | Module Name = Supported but not in production

Deposits	
<p>● Retail Deposits</p>	<p>● Commercial Deposits</p>



Source: Vendor RFI

Table 3: Key Features

1		Architecture Overview	Three-tier architecture used primarily on premise at the financial institution or hosted by the vendor with optional managed services.
2		Support for Cloud	Private cloud and public cloud hosting is now available and in production.
3		APIs and Integration	Profile is not a microservices application. However, the components that make up the Profile stack of applications can be deployed in private or public cloud.
4		System Flexibility	Three-tier (UI is the most flexible tier); Not componentized, but run-time executables are optimized based on bank's configuration, resulting in smaller optimized footprint; Major areas of system are exposed as APIs.
5		Real Time Capability	100% real time processing.
6		Data Models	Proprietary data model; NoSQL database

Source: Vendor

IT Road Map Overview

New system features are prioritized first by regulatory compliance and application security, then by enhancements that impact the broader client base, and finally by client-funded enhancement requests.

FIS provides quarterly Profile releases which primarily focus on US federal regulatory compliance, security changes needed to secure the software, and bank and client data.

Research and development expense during the past two years has been 6% of total revenue attributed to this solution. The vendor offers an annual user conference or customer event.

ABC SUMMARY



Advanced
Technology



Breadth of
Functionality



Customer
Base

CELENT OPINION

Profile from FIS has a long history as one of the top-performing core banking systems in multiple global regions and across many institution-size segments. FIS has continued to update and maintain Profile to keep its current customer base satisfied and continue to attract new clients. Along with many other FIS core banking systems, clients grow their business with Profile using modern—if not next generation—integration tools.

Since Celent's 2019 report, FIS has continued to enhance the platform. The most recent releases addressed US federal regulatory changes, additional security scans, GT.M NoSQL database enhancements, improving efficiencies, and functional enhancements covering Sheltered Harbor, overdraft limits, and IBAN account number format changes.

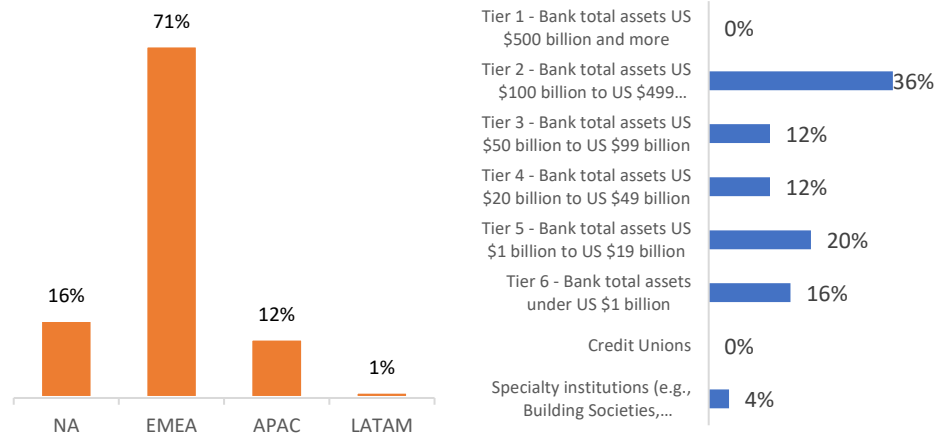
FIS has also added 11 new Profile clients across multiple asset-size tiers. This is impressive on an absolute basis because some core vendors have had little or no client growth recently, and some client bases have declined. FIS is one of few core system vendors that have had success selling a system to large and mid-sized banks across three global regions and that continue to have success in new system sales.

Customer Base

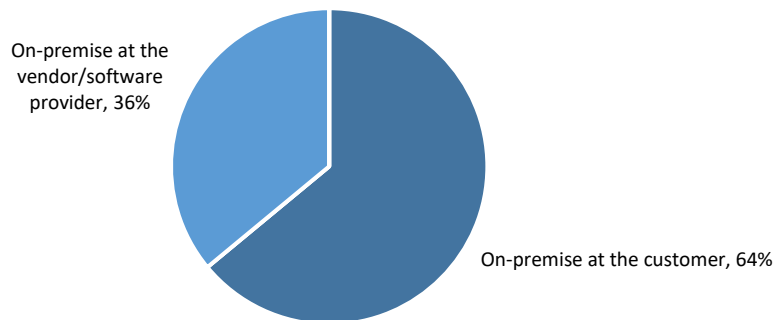
FIS has 159 total customers globally, including 83 in Portugal. This is an increase of 11 new clients since publication of Celent's 2019 core systems report. Customers include 109 clients that are Tier 5 institutions with total assets between US \$1 billion

to \$19 billion, and 31 clients that are Tier 1 – Tier 3 institutions with total assets exceeding \$50 billion.

Figure 2: FIS Client Base by Geography, Institution Type, and Deployment Mode



Deployment Type Distribution



Source: Vendor RFI

Profile is primarily an on-premises solution. However, over one-third of clients have taken advantage of the hosted option available not only in North America but also in EMEA and APAC, and all clients can utilize a hybrid cloud deployment model by integrating Profile with other client systems operating on a public cloud.

Client demand and system conversion economics have not been sufficient to date for FIS to provide cloud-based deployment beyond the FIS private cloud, onto which all of the North American hosted clients have been migrated. In addition, FIS sells Modern Banking Platform (MBP) for clients that want a next generation core system.

Platform Details

Profile has a three-tier architecture with a web browser, application server, and Profile host system database. The customer-facing user interface (UI) design is based on scalable open-source technologies such as the combined Tiles/Struts/Spring Java framework and HTML5 web-responsive design. The database has also been open-sourced for over a decade.

- This framework and design approach divides the UI into pieces of reusable template that are being rendered among different web pages, and it accommodates multiple devices.
- The Struts framework provides an extensible open standards development environment for FIS Profile Web applications based on published standards and proven design patterns.
- The core of the Struts framework is a flexible control layer based on standard technologies such as Java Servlets, JavaBeans, Resource Bundles, and Extensible Markup Language (XML).
- Spring Workflow provides a foundation for implementing workflow processes within web applications. Interoperability with other banking legacy systems is also assured by the cross-platform and robust integration capabilities of the Java EE platform.
- The Profile host provides the database engine, transaction engine, and batch support.

Technology details for Profile are provided in Table 4.

Table 4: Technology Options

Code Base	Core technology: .Net: 1%; Java: 50%; Other (The Profile host component is coded in PSL with some extensions in C.) MUMPS: 49%
Databases	NoSQL
Integration Methods	Web services; XML, not through web services; RESTful HTTP-style services; JSON format Public API integrations: 0 The vendor does not provide training for API integrations.

Deployment Models

NA/EMEA/APAC: On-premise at the customer, On-premise at the vendor/software provider

LATAM: On-premise at the customer

Profile is not a microservices application. However, the components that make up the Profile stack of applications can be deployed in private or public cloud.

- The UI is HTTPS-based and will run in any of the supported browsers.
- The middleware can be deployed in any container with Tomcat or Websphere. It scales HORIZONTally.
- Profile host environments can be deployed in any Linux/Unix container if it has sufficient data storage. HORIZONTAL scalability is provided through GT.Ms (Greystone Technology M Logical Multi Site (LMS) capabilities). GT.M is a high-throughput, key-value database engine optimized for transaction processing.

FIS provides a managed-service offering for Profile banking clients. The services can include infrastructure and application hosting inclusive of software and hardware updates and disaster recovery. FIS also offers a virtual back office service where FIS provides all back office support for the bank. This can include reconciliation, exception processing, and administration of the application.

Public Cloud Options

Amazon AWS (in production, multiple client sites) and Azure

Source: Vendor RFI

Profile provides 100% real time processing. In addition to the many benefits of real time processing, it also reduces day-two exception processing as errors and transaction integrity are validated at the time of update. This enables changes and corrections at the point of interaction and also provides a better customer experience.

The Profile core banking solution including the user interfaces uses and runs within cloud components, including Docker images, Kubernetes, and OpenShift. Cloud capabilities are shown in Table 5.

Table 5: Cloud Support

Microservices Architecture	No
Stateless (apps can scale independently)	Yes
Container Orchestration (Kubernetes)	No; in development
Service Mesh Support (e.g., Istio)	No

Source: Vendor RFI

Additional Functionality

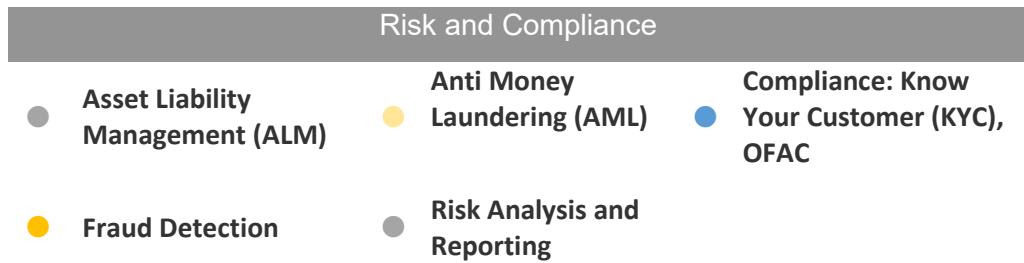
Table 6 shows the functionality and production status of key features for Profile.

Table 6: Ancillary Modules Support

- = Available out of the box
- = Additional Core Module
- = Composable module from ecosystem partner
- = Additional Module – different code base, preintegrated
- = Additional Preintegrated Partner Module
- = Additional Module - different code base
- = Additional Partner Module
- = Not available / Not applicable / Additional Module - Non Partner

Module Name = In Production | *Module Name* = Supported but not in production

Channels		
● Branch/Teller	● Digital Banking	● Digital Onboarding
● Call Center	● ATM	
Commercial and Retail Function		
X Currency Management	● Imaging/ECM Warehouse	● Data Layer (data lake, data streams, etc)
● CRM		● Data Warehouse
Cards & Payments		
● Bill Pay	● Payments Engine	● ACH Origination
● Card Issuing	● P2P	● International ACH (IAT)
● SEPA	● Stop Payments	



Source: Vendor RFI

Data and Integration

FIS's data model is proprietary. Table 7 describes details of Profile's API integration capabilities.

Table 7: API Integration Details

Function	Approach
Approach to Integration	Spring Integration enables lightweight messaging within Spring-based applications and supports integration with external systems via declarative adapters. Spring Integration's primary goal is to provide a simple model for building enterprise integration solutions while maintaining the separation of concerns that is essential for producing maintainable, testable code. In addition to wiring together fine-grained components, Spring Integration provides a wide selection of channel adapters and gateways to communicate with external systems. Channel adapters are used for one-way integration (send or receive); gateways are used for request/reply scenarios (inbound or outbound).
% of Platform Exposed as APIs	75%
API Management	Profile APIs are made available as part of the Profile deployment and/or exposed via FIS Code Connect (FIS API Gateway on WSO2).

Source: Vendor RFI

Configuration

The base system contains sample deposit and loan products. New products can be derived from existing products or created from scratch. The product schema contains a large number of attributes, all of which are configurable to create or modify a product.

The recommended approach to make product changes and deploy them into a production environment is to first add, modify, and configure a product in a development environment. Developers then use the installation components to deploy the changes to test and production environments. The installation process can be integrated into CD/CI pipelines.

For “self-service” changes that do not need vendor assistance, the client can change and extend the configuration. For example, they can create/change products and make general system changes. Depending on the license agreement, the client can also change or extend the application itself.

Table 8: Continuous Integration (CI) and Upgrading

CI/CD	
Support for CI	Yes
Support for Continuous Delivery or Productization	Yes
CI Tools	Visual Studio Code, Eclipse, Git, Jenkins, Artifactory

Source: Vendor RFI

Pricing

Table 9: Pricing Models

Pricing Models Available	Term license, Enterprise license
Factors Used to Determine Pricing	<p><i>Usage-based factors:</i> Number of total or named users, Policy or account volume, Annual premium volumes/revenues</p> <p><i>Tier-based factors:</i> None</p>

Source: Vendor RFI

FIS: SYSTEMATICS



FIS is a public company headquartered in Jacksonville, Florida. It is a leader in technology, solutions, and services, with presence globally across more than 50 countries in North America, Latin America, Europe, and Asia Pacific regions. The company provides a broad array of capabilities across the banking, merchant, and capital markets sectors through an array of mission-critical platforms and processing solutions to meet industry-specific needs of different segments and client types.

Within the banking sector, FIS offer multiple core banking systems, providing a range of platforms for different types and sizes of institution. The Systematics platform has a strong client base on the retail banking side, notably in the top-tier banking segments, with the platform addressing both the US and international market. It does have a particularly strong client base in the US. Within the company there around 150 employees available that provide professional services / client support for their Systematics solution, with 71 physically located in North America.

R&D expense over the past two years has been 7–8% of total revenue attributed to this solution. The vendor offers an annual user conference or customer event.

Table 11: FIS Snapshot

Company Info	
Year Founded	1968
Number of Employees	62,847
Revenues (USD)	\$12.6 billion
Financial Structure	Public company NYSE: FIS
Product Info	
Product Name	Systematics
VendorMatch Link	[FIS Systematics]
Year Originally Released / Deployed	1977 / 1977
Current Release and Date of Release	220.212 / 2021
Target Market	US and global large financial institutions

Installed Base	58
Notable Clients	TD Bank, Citizens Bank, BMO-Harris Bank, Barclays, Riyadh International Bank, Virgin Money, Bank of Ayudhaya (BAY), ANZ, Bank of the Philippine Islands (BPI), Banco de Bogota, Banco de Credito del Peru, Infonavit
Vendor Events	The vendor offers an annual user conference or customer event.

Source: Vendor RFI



Systematics has been a leader in the industry for decades with its robust and feature-rich capabilities. With developing industry trends and changing customer demands, Systematics continues to enable clients with tools and options to meet ever-changing demands and continue to evolve with the digital age. We are doing this with continued componentization and API enablement to support new business models.

— FIS Systematics

Platform Summary

In 1968, a University of Arkansas graduate named Walter Smiley determined that many banks would be priced out of the market to acquire and program the mainframe computers required to automate their banking activities. Based on this hypothesis, Smiley started a data processing company that he named Systematics and, with a \$400,000 investment from the Little Rock-based Stephens family, built out a new COBOL-based bank processing system. Over the years, Systematics grew from a deposit system into a full-fledged retail banking platform, with wide-ranging functionality across deposits and lending.

The Stephens family held their investment in Systematics until 1990, when it sold the business to a local telecommunications company called Alltel, which formed a new subsidiary named Alltel Information Services (AIS). Alltel sold AIS in 2003 to the title insurance titan Fidelity National Financial, the cornerstone of what we know today as FIS.

Systematics is FIS's flagship large retail bank CBS platform, with 58 clients globally, including half of the top 20 banks in the United States. The platform is deployed primarily as a licensed on-premise solution, although it is also available through a hosted option.

It’s designed to be a suite of integrated, end-to-end core banking solutions which are scalable and versatile. The integrated suite is built to be flexible to use in organizations of any size, business structure, or geographic scale. It supports multi-institution, multi-currency, and multilingual environments

Key Features

Reliability Security, Scalability Throughput Configurability, Transactional Integrity, Multiple Legal Entities, and a Modernization Roadmap

Table 12: Core Component Snapshot

- = Base Core Module (Available out of the box)
- = Additional Core Module
- = Additional Module – different code base, preintegrated
- = Additional Preintegrated Partner Module
- = Additional Partner Module
- = Not available / Not applicable / Additional Module - Non-Partner
- = Composable module from ecosystem partner
- = Additional Module - different code base

Module Name = In Production | *Module Name* = Supported but not in production

Deposits		
● Retail Deposits	● Commercial Deposits	
Retail Lending		
● Credit Card Originations	● Consumer Loan Origination	● Mortgage Loan Origination
● Credit Card Servicing	● Consumer Loan Servicing	● Mortgage Loan Servicing
● HELOC Origination	● HELOC Servicing	
Commercial Lending		
● Small Business Loan Origination	● Commercial Loan Origination	● Complex Loan Origination
● Small Business Loan Servicing	● Commercial Loan Servicing	● Complex Loan Servicing
Other		
● Treasury Management	● Merchant Services	● General Ledger

Source: Vendor RFI

The product backlog is prioritized by client and market needs based on a quarterly review. Future development plans include regulatory compliance, data accessibility, and transition capability to the Modern Banking Platform.

Table 13: Key Features

1		Architecture Overview	Systematics is a COBOL-based system designed to run in a mainframe environment / IBM Z-series hardware. While it is written in Assembler as well as COBOL, many of the functional components have been moved away from it—enabling greater adaptability and integration (75% of functionality is now exposed through APIs) while leveraging stability of a proven engine. Programming frameworks utilized for distributed ancillary offerings that integrate with the core include Java JEE, Spring, JAXB, and Hibernate. Systematics is also a traditional batch-based system but can memo post to achieve a similar result as real time processing.
2		Support for Cloud	Systematics does not currently support cloud deployments.
3		APIs and Integration	Systematics uses APIs for synchronous integration. Asynchronous integration occurs via queue-based, publish and subscribe of alerts, and secure FTP for bulk data transfer.
4		System Flexibility	Systematics is designed to allow for customization as the source code is delivered with the software license.
5		Real Time Capability	Some components are 100% real time, however the core accounting components are intraday memo post, and activity is reprocessed in batch overnight. All scheduled processes such as accruals, pricing, reporting, and GL interfacing occur in batch.
6		Data Models	The data model for Systematics is proprietary built from the ground up for the product. Some out-of-the-box extendibility is included. Complete extendibility available through configuration via developer UI and modification of source code.

Source: Vendor

ABC SUMMARY



Advanced Technology



Breadth of Functionality



Customer Base

CELENT OPINION

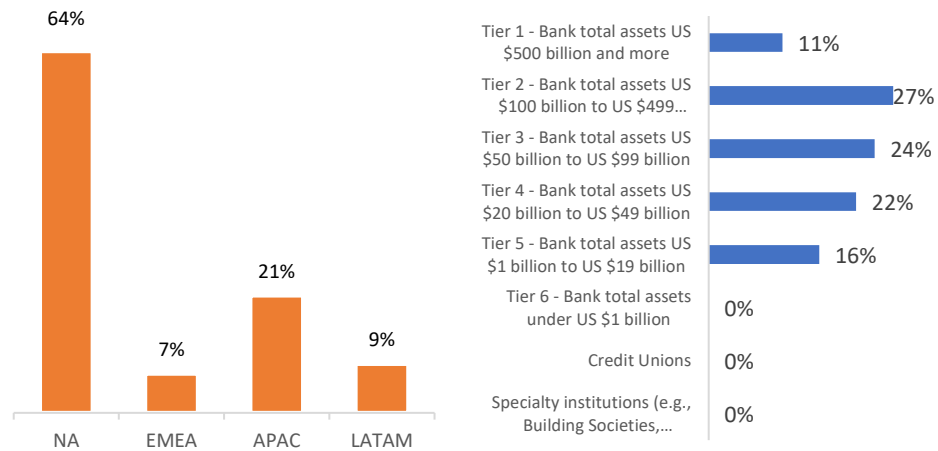
FIS Systematics is one of the most “tried and true” platforms on the market today, renowned for being the workhorse of large Tier 1 institutions across the globe. It has made a name for its stability, scalability, and speed, leveraging the IBM mainframe. FIS continues to invest in its enterprise and integration support, which will benefit Systematics as institutions begin to reevaluate what capabilities should and should not be in the core itself. FIS has also shifted configurability to a more user-friendly developer UI allowing more rapid innovation.

Large banks are the obvious target market and will appreciate the ability to run on-premises and customize the platform to the needs of the bank. FIS keeps doing enough to export functionality out and modernize that clients remain relatively satisfied relative to transformation cost and risk. However, Celent expects ongoing question marks about its long-term viability or reliance on COBOL/on-prem mainframe hardware to be a sticking point for some institutions. It’s also likely that FIS will start to position MBP within Systematics core market as a medium-term transformation route for banks looking to shift to more modern architecture.

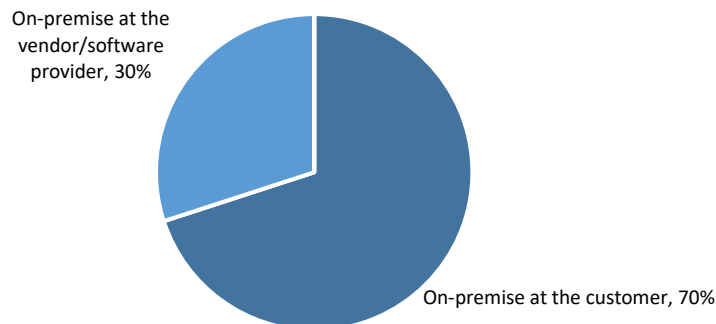
Customer Base

FIS has 58 total customers globally. Two-thirds of customers are in North America, although FIS successfully sells and services Systematics in all global regions.

Figure 2: FIS Client Base by Geography, Institution Type, and Deployment Mode



Deployment Type Distribution



Source: Vendor RFI

Platform Details

The application architecture provides a set of standards, methods, facilities, and tools for developing and maintaining a system. It is composed of the following:

Policy Administration, Retrieval, and Management System (PARMS)

PARMS, a control file facility, provides a tool for efficient management of bank policies, products, and prices. Easy-to-use, real time screens eliminate redundancy of control information, thus reducing hardware cost and decreasing policy administration effort. For example, in a multistate environment, some systems

require a complete set of control information for each state. With PARMS, only the unique state policies are duplicated. Some examples are usury limits and delinquency management.

SDMS and Data Dictionary

SDMS, a data management system, and the Data Dictionary allow financial institutions to share, reference, and store data fields, thus providing increased programmer productivity and minimizing data redundancy. In addition, these tools provide the capability to migrate to a database technology.

Application Programming Interface (API)

API allows a single version of a program to operate in many different environments, such as online or batch and different operating systems. The compiler interface and similar runtime interfaces free programmers from environment-specific programming issues.

Report Program Interface

RPI allows you to add new reports with minimal programming. New report layouts and selection criteria are set up using a high-level programming language. The report can then be added to the standard processing using any desired frequency.

Screen Painter

The Screen Painter provides an easy and flexible way for users to modify or define new screens. Simply paint a screen, and the Screen Painter adds it to the standard set for recall at any time without programming. AM uses this facility for all of its PARMS information.

Technology details for Systematics are provided in Table 4.

Table 14: Technology Options

Code Base	Core technology: .Net: 10%; Java: 5%; Other (COBOL, Assembly): 85%
Databases	DB2

Integration Methods	<p>Web services; RESTful HTTP-style services; JSON format; MQSeries, JMS, or similar queue technology; Custom APIs; Flat files; Native messaging</p> <p>Public API integrations: See https://codeconnect.fisglobal.com/app/home</p> <p>The vendor does provide training for API integrations.</p>
Deployment Models	<p>On-premise at the customer, On-premise at a partner, On-premise at the vendor/software provider, Private cloud (Global)</p> <p>In NA, full services available include hardware, software, SAAS, development, testing, integration, support, and back office.</p> <p>In EMEA, full services available include hardware, software, SAAS, development, testing, integration, support and back office.</p> <p>In APAC, Services available include hardware, software, development, testing, integration, support, and back office.</p>
Public Cloud Options	None
Source: Vendor RFI	

Systematics is batch-based system with memo post. As a COBOL, mainframe-based system, it does not support cloud deployment, although it can be run on a full service / ASP basis through FIS if required.

Table 15: Cloud Support

Microservices Architecture	No
Stateless (apps can scale independently)	No
Container Orchestration (Kubernetes)	No
Service Mesh Support (e.g., Istio)	No
Source: Vendor RFI	

Additional Functionality

The figure below shows FIS’s functionality and production status of key features for core banking systems.

Table 16: Ancillary Modules Support

- = Available out of the box
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● Branch/Teller	● Digital Banking	● Digital Onboarding
● Call Center	● ATM	
Commercial and Retail Function		
● Currency Management	● Imaging/ECM Warehouse	● Data Layer (data lake, data streams, etc)
● CRM		● Data Warehouse
Cards & Payments		
● Bill Pay	● Payments Engine	● ACH Origination
● Card Issuing	● P2P	● International ACH (IAT)
● SEPA	● Stop Payments	
Risk and Compliance		
● Asset Liability Management (ALM)	● Anti Money Laundering (AML)	● Compliance: Know Your Customer (KYC), OFAC
● Fraud Detection	● Risk Analysis and Reporting	

Source: Vendor RFI

Data and Integration

FIS's data model is proprietary.

Table 17: API Integration Details

Function	Approach
Approach to Integration	APIs for synchronous integration. Asynchronous integration occurs via queue-based, publish and subscribe of alerts, and secure FTP for bulk data transfer.
% of Platform Exposed as APIs	75
API Management	Yes

Source: Vendor RFI

Configuration

FIS provides an Installation Utility with the product set. Systematics is designed to allow for customization as the source code is delivered with the software license.

Table 18: Continuous Integration (CI) and Upgrading

	CI/CD
Support for CI	No
Support for Continuous Delivery or Productization	No
CI Tools	0

Source: Vendor RFI

The FIS Systematics product suite is designed to allow for speed-to-market with respect to new product introduction. All core applications allow for online configuration of products through common components and architecture.

Pricing

Table 19: Pricing Models

Pricing Models Available	None
Factors Used to Determine Pricing	<i>Usage-based factors: None</i> <i>Tier-based factors: None</i>

Source: Vendor RFI

LEVERAGING CELENT'S EXPERTISE

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Typical projects we support include:

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Business practice evaluations. We spend time evaluating your business processes and requirements. Based on our knowledge of the market, we identify potential process or technology constraints and provide clear insights that will help you implement industry best practices.

IT and business strategy creation. We collect perspectives from your executive team, your front line business and IT staff, and your customers. We then analyze your current position, institutional capabilities, and technology against your goals. If necessary, we help you reformulate your technology and business plans to address short-term and long-term needs.

Support for Vendors

We provide services that help you refine your product and service offerings.

Examples include:

Product and service strategy evaluation. We help you assess your market position in terms of functionality, technology, and services. Our strategy workshops will help you target the right customers and map your offerings to their needs.

Market messaging and collateral review. Based on our extensive experience with your potential clients, we assess your marketing and sales materials—including your website and any collateral.

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