

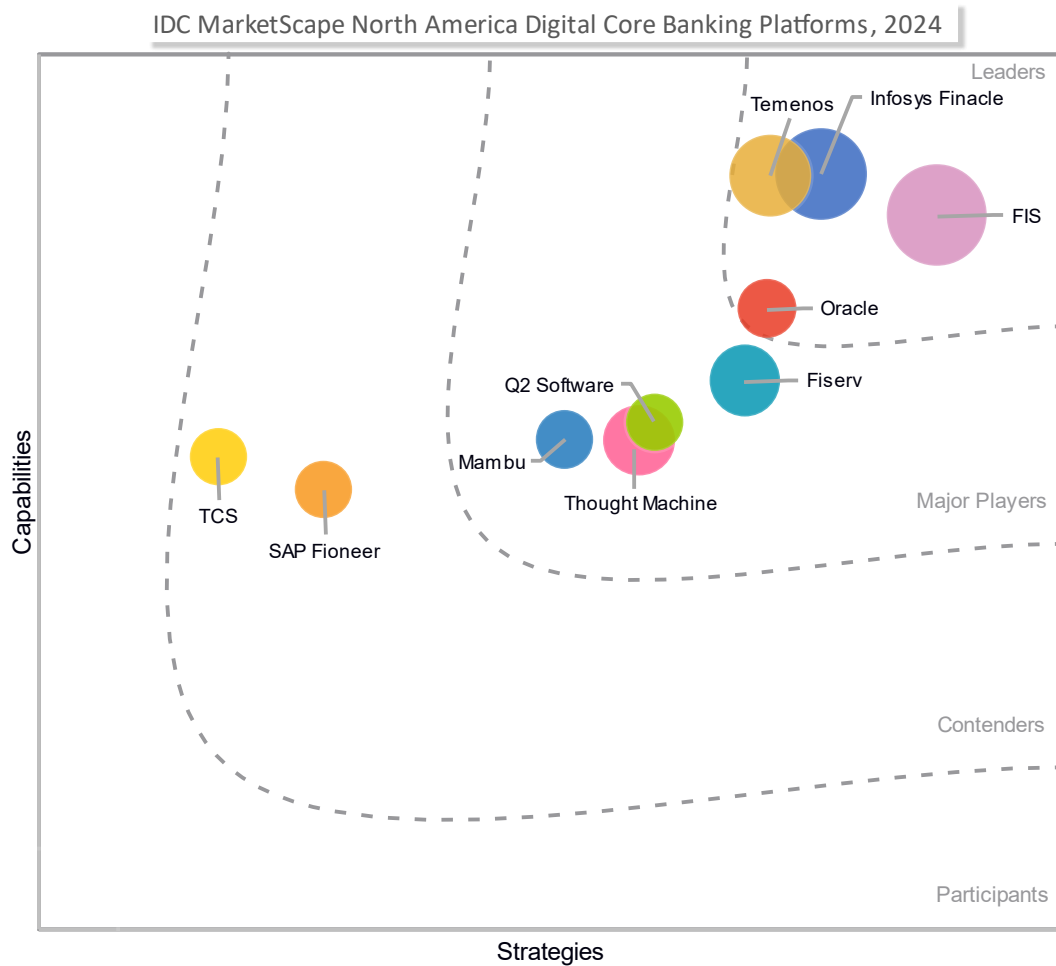
IDC MarketScape: North America Digital Core Banking Platforms 2024 Vendor Assessment

Jerry Silva

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape North America Digital Core Banking Platforms Vendor Assessment



Source: IDC, 2024

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IDC OPINION

Over the past 10 years or so, there has been long-term migration of banking core systems from monolithic platforms based on COBOL or other legacy languages created as much as 30–40 years ago to digital platforms that are based on modern programming languages and open APIs and operating as collections of microservices that can run in a container environment, adding the ability to run in cloud environments as "cloud native" and as a software-as-a-service (SaaS) platform. These kinds of systems promise to open business opportunities, overcome challenges with speed to market, decrease operating costs, and add resiliency, scale, and security to legacy platforms.

IDC proposes that core platforms that were developed to run strictly on premises at the institution, or on premises at a managed services provider, and/or have been modified or simply augmented to run on cloud (cloud-enabled) without the factors mentioned previously do not qualify as digital banking cores.

Key findings of this research include:

- Different digital core platform vendors generally appeal to different institutions based on bank size, market demands of the bank, size and capabilities of internal technology staff at the bank, the bank's business strategy, and other factors.
- Most new core providers have designed their offerings to include the support of *de novo*, greenfield, and digital bank organizations in addition to traditional financial institutions.
- These digital core systems are also designed to be modular in design, offering banking-as-a-service (BaaS) functionality to organizations that only need to support one product (e.g., deposits) as opposed to full banking functionality. (However, one dimension of this evaluation, capabilities, does consider the breadth of business functionality from each vendor.)

Each vendor included in this IDC MarketScape offers and has demonstrated competency in digital, cloud-native core processing. IDC would not hesitate to recommend any of them in the individual evaluation process for any specific financial institution requirements. Many of the core providers in this document built their platforms with different design goals and target markets. Although the vendors in this study compete, they can also complement each other under certain circumstances.

This IDC MarketScape is a starting point for financial institutions and financial-adjacent organizations wanting to offer financial products and services and that are considering modernizing their existing core platforms or building financial services "from scratch."

In this sense, this document can be considered a "short list," a way to distill the long list of big and small core providers in the marketplace. This document does not replace the due diligence that companies must do to evaluate which vendor fits their specific needs and circumstances.

IDC MARKETSCOPE VENDOR INCLUSION CRITERIA

IDC undertook an evaluation of vendors that produced cloud-native core banking solutions and selected vendors for evaluation that met the following criteria:

- The vendor must produce and hold the intellectual rights to a core banking solution that is digitally native (developed from the ground up on cloud-native platforms and not a replatformed legacy system).
- The solution must utilize a microservices and container-based architecture to fulfill cloud-native delivery standards.
- The solution must be able to fulfill the needs of at least one of the major banking products as a minimum viable product (deposits, payments, loans, transaction processing, and ledger) to be qualified as a digital core banking solution.
- The vendor must have at least one instance of this digitally native cloud core banking platform being implemented in North America. Older instances of legacy core banking platforms that are not digitally native (which in some cases may be substantial in total implementations and generated revenue) are not counted toward the final assessment, except for evaluation criteria such as knowledge of the market, where previous, non-digital core implementations have benefitted the vendor and will impact future business.
- The solution must be able to run on private cloud or on the public cloud as a single-tenant or software-as-a-service instance on at least one of the major cloud providers (that varies by region). Solutions only configured to run on private or hybrid cloud-type setups are not included in this assessment.

Note: This assessment only includes solutions from vendors that meet these requirements. Our assessments of capabilities and strategies are based solely on the cloud-native solutions of their business.

ADVICE FOR TECHNOLOGY BUYERS

Use this IDC MarketScope for vendor selection for RFI/RFP purposes and as part of a due diligence process for institutions in North America. Financial institutions and fintech organizations can use this IDC MarketScope to help develop a short list of vendors from which to solicit information about their products or services. Technology

buyers may use this study to evaluate a vendor's proposal and demonstrate the breadth and depth of a provider's capabilities compared with the overall market.

To make the right choice and find an ideal digitally native core banking solution, system-of-record technology buyers should consider factors that align with their unique requirements:

- **Organizational fit:** Some solutions included in this evaluation explicitly require the entity to have a strong in-house technological capability to implement successfully. This is specifically the case when the solution is more of a building kit or framework to be further developed or integrated into existing infrastructure. If the organization does not treat technology as its main differentiating factor, or if a standard set of products is enough to fulfill its business needs, a more out-of-the-box solution with simple configuration capabilities may be preferred.
- **Regional support:** Evaluate the regional support offered by vendors. Consider factors such as their local presence, expertise in dealing with local regulations and languages, ability to cater to specific regional requirements, and local supporting staff. Choosing a vendor with substantial regional support ensures seamless operations in the locations where your business operates.
- **Business models and portfolio coverage:** Understand the business models of vendors and their portfolio coverage. Some vendors may focus solely on the most rudimentary capabilities, like ledger, while others offer a broader range of functionalities (e.g., the entire lending life cycle).
- **Ecosystem and partners:** Assess whether your organization requires specialized functionality from other software providers aligned with the core vendor that ensures tight integration with the core platform. Or assess whether the organization prefers a single vendor supporting multiple business needs based on its core operations and procurement strategy.
- **Scalability and integration capabilities:** Consider the scalability of the solution and its ability to accommodate future business growth. Identify relevant KPIs. In addition, assess the application's integration capabilities with existing systems and third-party tools to ensure seamless dataflow and process automation.
- **Solution deployment and cloud:** Consider the application deployment options provided by vendors. Evaluate whether your organization prefers on-premises deployment, private or public cloud solutions, or a SaaS model. If a cloud solution fits the organization well, consider the vendor's preferred cloud provider partner for alignment with existing partnerships the institution may have. Ensure the chosen deployment option complies with your IT governance policies, security, and regulatory requirements.

- **Vendor road map and customer references:** Investigate the reputation and track record of the vendors in the industry. Seek feedback from current customers to assess the quality of their support and responsiveness to issues.
- **Success-based partnerships:** Because a digital banking platform is arguably the most critical platform in operation at the institution, organizations should seek out supplier relationships that are aligned with the institution's success metrics as much as possible.

VENDOR SUMMARY PROFILES

This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and challenges.

FIS

FIS is positioned in the Leaders category in this 2024 IDC MarketScape for North America digital core banking platforms.

Fidelity Information Systems (FIS) is a global provider of financial services technology solutions for financial institutions, businesses, and developers. The company employs 56,000 people in 86 offices across 58 countries, but it is headquartered in Jacksonville, Florida. FIS is a publicly listed company trading on the New York Stock Exchange and is a member of the Fortune 500 and the Standard & Poor's 500 Index. The company has a long history as a financial services product and managed services company and is the result of both organic and nonorganic growth through acquisitions. In 2019, FIS acquired Worldpay, a global provider of ecommerce and payments, which it later divested in 2024 as a way to refocus on the banking industry.

FIS' primary market is North America, where the company provides products and services to over 1,000 banks, ranging across small, medium-sized, and large banks. For example, a bank in North America that chose to deploy the FIS Modern Banking Platform in the United States has over \$550 billion in assets.

The Modern Banking Platform (MBP) was built "from scratch" as a digitally native, built-for-the-cloud platform. As a component-based architecture, it does not need to be as fully implemented as other FIS core solutions, integrating within any existing architecture and with many other platforms across the bank's infrastructure. This design principle makes the solution ideally suited to larger banking organizations that wish to limit their transformation to only a few functional areas, or that wish to modernize over time across multiple business units. The solution is cloud agnostic but is focused on Azure from Microsoft. FIS has also its own cloud technology stack.

MBP is constructed around two major pillars: foundational components (customer, account engine, real-time data access, compliance, and organization) and core products

(modules or capabilities, which can be deployed independently: retail and commercial deposits and retail lending). There is an underlying framework beneath the modules/components to provide shared capabilities such as API interfaces (ability to build new capabilities and integrate components based on API use cases), event streaming, and reporting and analysis. It has also a shared capability called Enterprise Services that fulfills a support function, such as managing an integrated customer file, pricing, and rates management.

Strengths

- The FIS MBP Enterprise Services capability can be deployed on its own and support solutions of other vendors.
- The solution has a well-proven ability to integrate with other FIS solutions and third parties and fintech (e.g., the Enterprise Customer offers multiple systems of record).
- FIS is known for its focus on local regulations, and MBP provides compliance in all regions where it is deployed.
- FIS is one of North America's prominent financial services technology providers, with decades of presence in banking, ensuring a low level of third-party risk.

Challenges

- FIS has made inroads at regional and superregional banks in North America but continues to support eight other core banking platforms used in much smaller institutions. As such, prioritization of internal investments and strategic growth of the core system portfolio could impact future investments in MBP.
- FIS is facing more competitive pressures from smaller, digitally native core providers and from large foreign entrants into the North American market.
- The MBP portfolio of capabilities is yet to grow to encompass complete functionality but is aggressively working with clients to increase the breadth of their solution.

Consider FIS When

Consider FIS Modern Banking Platform if you are a medium-sized to large bank that has a relatively complex infrastructure including a legacy core tied to many other systems. The MBP platform is well suited for institutions that have their own IT staff that can work alongside FIS to integrate MBP into their architecture and potentially cocreate new functionality. An institution should also consider FIS if it seeks to work with a proven and stable partner with a significant presence in the North American market.

Fiserv

Fiserv is positioned in the Major Players category in this 2024 IDC MarketScape for North America Digital Core Banking Platforms.

Fiserv was created after First Data Processing and Sunshine State Systems merged in 1984 into a single entity called Fiserv, supporting banks in the United States with platforms and managed services. In 1991, Fiserv acquired Citicorp Information Services, expanding its market to include credit unions and commercial institutions. In 2007, Fiserv expanded further into the payments and online banking space by acquiring CheckFree, which had previously acquired Corillian, an internet banking firm. Fiserv has continued to grow through acquisitions and organic client growth, notably acquiring Open Solutions, a provider of the DNA core banking platform, in 2013. In mid-2019, Fiserv purchased First Data, a merchant acquirer processor. Fiserv is headquartered in Milwaukee, Wisconsin, and has over 70 locations in the United States and employs about 42,000 people.

Fiserv provides seven core banking systems with service support to institutions in the United States. Through its other lines of business, Fiserv serves nearly 10,000 financial institutions and over 6 million merchants with financial solutions globally.

In 2022, Fiserv acquired Finxact, which had created a modern, cloud-native core banking product of the same name. Finxact is the Fiserv product included in this evaluation, and since the acquisition, Finxact has been augmented with additional core banking functionality from Fiserv's broader product range through the company's open API architecture as well as by leveraging fundamental technologies, like streaming technologies, from Fiserv.

Finxact is installed at 18 institutions in the United States. While traditional Fiserv core systems serve over 3,000 banks and credit unions ranging from *de novo* to as large as those with \$150 billion in assets, Finxact is targeted at large to midmarket banks and digital banks that want more of a toolkit solution or monoline enterprises that don't necessarily need a full-breadth banking platform.

Finxact is an open API platform using REST and a microservices architecture that supports real-time processing for core accounts. The platform extends to payments and digital channel services in addition to core, with a road map that includes future functionalities such as treasury, regulatory reporting, lending, and data analytics. The platform leverages Kubernetes to orchestrate its services across cloud platforms, which include Amazon Web Services (AWS), Google Cloud Platform (GCP), and Microsoft Azure, but can be deployed on any cloud infrastructure.

Strengths

- The acquisition by Fiserv in 2022 means that the platform has received and may likely receive more investments in its growth and innovation than might have been otherwise possible as a smaller, independent entity.
- The larger organization Fiserv has years of expertise in the NA core banking and payments space, something that Finxact can leverage to gain further adoption in this market.
- The open and modern Finxact architecture lends itself to integration into highly complex environments, particularly appealing for larger institutions that need a platform to fit into an existing software infrastructure.
- Finxact can also support monoline and/or fintech organizations that don't necessarily need full-function banking services.

Challenges

- Fiserv is facing various competitive pressures to maintain its position within the North American market.
- Finxact's smaller functional portfolio may dissuade some small to medium-sized organizations that need full-function cores from considering this platform.

Consider Fiserv When

- Like the latest generation of smaller cloud-first core platforms (not originating at larger incumbent providers), Finxact can be ideal for larger institutions that need to modernize specific business functionality or launch new strategic market initiatives without replacing the entire core environment.
- For traditional institutions (and nonmonoline of fintech organizations), Finxact will require a minimum level of technological expertise from the bank. If the bank has this support internally, Finxact can help create competitive differentiation through its deployment.

Infosys Finacle

Infosys Finacle is positioned in the Leaders category in this 2024 IDC MarketScape for North America digital core banking platforms.

Headquartered in Bangalore, India, Infosys Finacle is the digital banking solution suite from Infosys catering to clients in over 100 countries. It is a part of a wholly owned product subsidiary of Infosys.

Infosys Finacle focuses not only on digitalization of existing operations of incumbent banks but also on digital-only entities. The firm also targets digitally native organizations, such as fintech partners and entities, either with a limited or full license

and with activities adjacent to banking that wish to attract clients with pure financial services products (e.g., postal offices and telecom corporations).

The Finacle Core Banking solution comprises deposits, retail lending (both secured and nonsecured) and leasing, and corporate lending and leasing. The core platform is based on a single concept globally applicable to various business models using specific components. Due to its componentized nature, parts of the system can coexist with other solutions side by side as many large banks still run many legacy and/or proprietary solutions that they don't wish to replace. This layered assembly method allows for layers to be stacked to cater to different client needs.

Finacle is based on cloud-native architectural philosophy that is based on Cloud Native Computing Foundation (CNCF) principles. It is cloud agnostic, developed using microservices allowing for the implementation of reusable business components. The client can assemble these components in line with the specific business and domain context to create purpose-fit solutions. The microservices run in a containerized environment orchestrated by Kubernetes. This means that Finacle can be deployed on a private, public, or hybrid cloud or accessed in a software-as-a-service model. It offers a real-time processing engine and Finacle API Connect, which is a full-stack API shop. Furthermore, it supports business models such as banking as a service, marketplace banking, and embedded finance.

Finacle has been implemented at a few large and medium-sized financial institutions in North America.

Strengths

- Finacle provides a broad suite of products that are rich and complex in nature and can cater to a very broad range of clients of different scales and different needs.
- Infosys Finacle has a proven track record of adapting its solution to a wide range of banks and financial organizations, ranging from large international giants to smaller digital-native banks, making it a very flexible and adaptable solution through its composable approach.
- The organization has a long tenure providing solutions in banking not only supporting its credibility in North America but also offering expansion into global regions, should the institution need.

Challenges

- EdgeVerve Finacle has still many clients with installed legacy, non-core banking solutions, which need to be serviced. This possibly limits future investments and innovation.
- Until recently, EdgeVerve had little support presence in North America, limiting its appeal as a domestic provider of core services as support was based in India.

However, Infosys has made strides in locating many support functions in North America.

- The North American market also presented a regulatory challenge when the firm began offering its platforms in that market. Again, the company has overcome that challenge but will need to dedicate resources to closely track regulatory changes in today's dynamic market.

Consider Infosys Finacle When

- Consider Infosys Finacle if you are a medium-sized to large bank that wants or needs a full-stack digital core platform that can be deployed all at once or progressively over time.
- The Infosys Finacle core can be deployed at institutions that have their own IT staff that can customize the feature/functionality or at an institution with relatively fewer technology resources that desire more of a bank-in-a-box solution.
- The Infosys Finacle platform also benefits from the large systems integration capabilities of the larger Infosys organizations, combining both the software and implementation and professional services from one organization.

Mambu

Mambu is positioned in the Major Players category in this 2024 IDC MarketScape for North America digital core banking platforms.

Mambu is a core banking platform provider that delivers software-as-a-service solutions for banks, lenders, and fintechs globally to build and launch better, faster financial solutions. The company was founded in Berlin in 2011 and is currently headquartered in Amsterdam. The company was founded with the ambition to bring banking and financial services technology into the digital-first world, building upon its roots in the microfinance sector to make modern financial services accessible to all. Mambu has over 500 employees worldwide with team members based in the Americas, Europe, the Middle East, and Asia/Pacific.

Growing quickly from its roots, Mambu now offers a 100% true SaaS, public cloud-based solution for financial institutions looking to adopt a scalable core banking platform on which to develop new digital financial offerings and product lines. The Mambu core banking platform is focused on helping organizations meet the needs of rapidly growing digitally native customers, providing out-of-the-box banking solutions that can be easily configured to meet the business' unique objectives. Mambu's platform has been implemented at multiple financial institutions in North America.

The Mambu Cloud Banking Platform leverages a composable framework that connects with an ecosystem of microservices, Kubernetes containers, and a large catalogue of standard APIs. By bringing together various components, internally and externally, financial institutions can leverage both Mambu and external modules for different functions to create a scalable, fit-for-purpose core infrastructure. Changes to products such as deposits, loans, and cards are handled by the platform engine without the need for extensive coding or development, empowering internal staff to be able to enact these changes with a minimal amount of training. With prebuilt connectors, an extensive API architecture, and a modern UI, customers can build the tech stack they require, integrate services, and deliver great financial experiences at scale. This is done with low-code configurations, requiring fewer development and maintenance resources and reducing total IT costs.

The Mambu Cloud Banking Platform has been provisioned for the three major cloud service providers: AWS, GCP, and Azure. Mambu's core banking and lending engines are available only in a SaaS model — onsite implementation and private and hybrid cloud implementations are not available. The Mambu Cloud Banking Platform can be found on the AWS, Azure, and GCP marketplaces, making it one of the few core banking service providers to be available through these ecosystems.

Strengths

- Mambu is one of the few "next generation" core platform providers that designed its system to be cloud native by design. In this way, buyers can count on a platform that doesn't have any technological debt and is built from components that are always on and always accessible and can scale quickly and securely.
- By offering a composable core, customers can connect to their existing stack and minimize vendor lock-in with the flexibility to iterate or adapt their architecture at any time with third-party providers that can meet the client's needs.
- The SaaS-only nature of implementation makes it a simpler and faster process for institutions that need speed to respond to market demands. With continuous delivery for financial services, customers break free from often slow, single release upgrades from monolithic platforms with an ever-evolving future-proof SaaS framework.

Challenges

- Banks that want one provider to address all functional needs may not find Mambu to be a suitable partner due to the required management of a composable architecture. Mambu's focus is on performing and optimizing the company's core solution for the most common banking needs of institutions, rather than providing full-service solutions to address all needs.

- Mambu offers a SaaS subscription model for all customers. Some financial institutions are not yet ready for this model based on their own control and risk frameworks/maturity of operations.
- SaaS-only deployment may not be suitable for many banks in North America for a variety of reasons, including concerns around resiliency, security, and risk. Mambu is working to further develop its offering and tailor it to the needs and requirements of North American banks.
- Because Mambu is a smaller, privately owned company, some institutions may be concerned about Mambu's long-term viability, or the chance of the firm being acquired and changing the relationship with the bank.
- While Mambu has been in business for over 12 years, supporting a live client base of 250+ customers on a SaaS subscription basis, incumbent institutions may liken Mambu to other next-generation core banking solutions that are very much in the start-up phase with few live customers and few sustainable revenue sources.

Consider Mambu When

- Mambu caters to the needs of large banks and financial institutions that want to migrate from legacy cores to a digital, cloud-native core to become more agile and accelerate innovation.
- Mambu is a strong fit for new digital banks, or "sidecar" lines of business from traditional banks looking for a modern platform that can scale in terms of transactions and products/services as the digital brand itself grows.
- Mambu is a good fit for new banks and fintechs catering to or focusing on the digital-first consumer that wants to maintain a lean structure with a strong tech foundation and is digital native.
- Mambu also appeals to lending institutions of all types (specialized lenders, mortgage lenders, retailers, telcos, vehicle lease/financing, microlenders, etc.).

Oracle

Oracle is positioned in the Leaders category in this 2024 IDC MarketScape for North America digital core banking platforms.

Oracle was founded in 1977 as Software Development Laboratories (SDL). The company changed its name to Rational Software in 1979 before finally renaming itself as Oracle Systems Corporation in 1983. It is a global technology provider, with over 250 offices worldwide and 164,000 employees.

Oracle is known primarily for its data management products (Oracle Database) and business intelligence capabilities built up over years of acquisitions. Through the 1980s

and 1990s, Oracle expanded its software products to include enterprise resource planning (ERP) and customer relationship management (CRM) platforms. In the 2000s, Oracle continued to expand its portfolio by acquiring other software platforms, including Siebel Systems and PeopleSoft. During these acquisitions, Oracle began offering platforms differentiated by industry, including the financial services industry.

In 2005, Oracle acquired i-flex, a 1992 technology spin-off from Citicorp. In 1997, i-flex launched FLEXCUBE, an integrated platform that addressed the needs of retail banks, corporate banks, and investment banks. In 2012, Oracle announced Oracle Banking Platform (OBP), a services-oriented architecture that was targeted at supporting large bank modernization efforts starting with the core system.

In 2016, the company introduced Oracle Cloud Infrastructure (OCI), the platform that enabled the company to deploy on a cloud platform that was increasingly in demand, particularly for the financial services industry. In 2023, Oracle launched Oracle Banking Cloud Services (OBCS), a cloud-native platform that includes retail and corporate core banking functionality and can be implemented on OCI to run as software as a service for tier 2 and 3 organizations, credit unions, regional or smaller national banks, and smaller community banks. This document focuses on OBCS as a digital core.

Oracle Banking Cloud Services is a microservices-based banking architecture that comprises a number of functional components, including, but not limited to:

- Retail and corporate accounts
- Banking APIs
- Retail origination
- Payments
- Digital experience

These pre-integrated components, together, form the basis for what has historically made up the "core" platform at the bank. As the core system has been moving more and more away from a monolithic platform toward a set of individual microservices-based components that connect through over 2,000 REST APIs, Oracle has leveraged this shift and can deliver its banking components on an as-needed basis, including a full-breadth banking platform.

To date, cloud-native solutions and services of OBCS have been deployed on private cloud (90% of implementations) and public cloud. Oracle provides high availability of both the microservices platforms and data through built-in observability functionality and configurable fault tolerance levels. The database leverages Oracle Coherence, a distributed in-memory database, distributed over all servers in the environment, for high availability against potential disruptions.

Given that OBCS was just introduced in 2023, the platform is only installed at eight institutions in North America. Its largest implementation deal was announced in January 2024 for a large credit union in the United States with \$168 billion in assets.

Strengths

- While the dependence on OCI and Oracle Database could prove difficult for some organizations, the approach of using the same technology provider for software, database, and infrastructure can potentially make it relatively easier for small to medium-sized institutions to implement and maintain.
- As an organization, Oracle has focused on the financial services industry for decades and has offered core banking platforms for almost as long. The organization has the appropriate staff to support every aspect of a banking solution, from sales to development to implementation and operations.
- For any institution already running an Oracle ERP, Oracle Database, or Oracle CRM platform, OBCS can be considered an extension of the Oracle infrastructure stack, making a core conversion to OBCS easier. This, in fact, seems to be the strategy Oracle has taken in expanding its market — approaching banks that already have other Oracle technologies in place.

Challenges

- Oracle's entry into digital core platforms is a relative latecomer compared with both smaller independent and large incumbent providers, potentially slowing the company's expansion into the market.
- The dependence on OCI could limit the number of institutions that already have established relationships with the major cloud providers. In 2024, Oracle established a partnership with Microsoft, but this does not extend to running OBCS on Azure, rather running OCI in a Microsoft environment.
- The dependence on Oracle Database may not align with many institutions that don't already run on that platform and that may be concerned about internal skills, complexity, and costs associated with bringing another technology to in-house support.

Consider Oracle When

- OCBS is a modern cloud-native platform that applies all modern aspects to its architecture, including open APIs, microservices, and containerized deployment.
- OCBS' dependence on OCI and Oracle Database can be an advantage to institutions that may already have those technologies in place or those that can support new platforms in exchange for a single-vendor platform that reduces the complexity and risks of a multivendor environment.

- OCBS' functional breadth, while not yet complete, has a compelling road map that intends to bring full function to the clients.

Q2 Software

Q2 Software is positioned in the Major Players category in this 2024 IDC MarketScape for North America digital core banking platforms.

Austin, Texas-based Q2 Software was founded in 2004 to provide front-office (omni-channel) solutions to the community banking market. The firm expanded its offerings in 2006 with authentication solutions to battle increasing levels of fraud. Over the next 15 years, the company continually expanded its offerings to include bill payment, predictive AI to further combat fraud, a software development kit, and personal financial management. In the ensuing years, Q2 has grown to expand its capabilities and the spectrum of banks and credit unions in North America. Q2 Software is a public company.

Q2 made its initial investment in core processing in late 2015, launching its first BaaS programs. In 2022, Q2 announced a rebrand of the core "Helix," the culmination of more than six years of development focused on BaaS/embedded finance. The platform leverages both internal- and external-facing API libraries to allow for expansion by clients and partners while safeguarding internal resources. Helix by Q2 is implemented using microservices and deployed over HashiCorp Nomad and Kubernetes, ostensibly supporting a cloud-agnostic capability, and enabling resiliency and scale, although the platform runs only on Azure at this point.

Helix provides most banking services but does use partners to deliver some functionality, like card processing and KYC compliance. Helix is meant to be deployed as a complete cloud-only system and is deployed by Q2's own resources (not using any systems integration partners today), essentially representing a "one-stop shop" for banks that want a complete solution and require or want their core delivered as a SaaS offering.

The Helix platform is currently installed in eight banks in North America, and Q2 Software is aggressively expanding in this market.

Strengths

- The Helix architecture was designed from the ground up with banking as a service in mind, anticipating the growing movement of open banking and enabling institutions to participate in embedded finance markets.
- Q2's focus on a client-first culture has helped inform the company's corporatewide road map priorities, garnering high marks from reference customers of all of the company's products.

- The fully integrated business architecture simplifies core modernization for institutions of the appropriate size and sophistication.

Challenges

- Q2 is significantly small, potentially raising concerns about its long-term competitive and financial future and possible acquisition.
- The integrated business and technology stack, along with the cloud-only deployment model, may limit the firm's growth as medium-sized to large institutions may find the platform too limiting.
- To expand the viability of the Helix platform to larger institutions, and support more choice in cloud provider options, Q2 may have to invest in reviewing and possibly re-architecting the platform, which could cause disruptions.

Consider Q2 Software When

- Helix is ideally suited to small to midsize organizations, either traditional financial institutions or new entrant fintechs, that value speed, agility, and simplicity over complexity and heavy customization.
- Q2's customer-led organization will appeal to community banks that instill the same culture at their organizations and compete on relationships with their own clients.
- Helix offers a path to core modernization for small and midsize financial institutions without significant investments in time and money to adapt core platforms from other firms to fit the needs of smaller institutions, enabling them to participate in new business models like embedded finance.

SAP Pioneer

SAP Pioneer is positioned in the Contenders category in this 2024 IDC MarketScape for North America digital core banking platforms.

SAP Pioneer was launched in 2021 as a joint venture between the global technology company SAP and the investment company Dediq to become a provider of financial services software solutions and platforms, complementing SAP's portfolio of infrastructure technologies.

SAP Pioneer has a broad ecosystem of partners and over 1,200 types of financial services customers worldwide. It has more than 1,000 employees and is present in 17 countries across Europe, North and Latin America, the Middle East, and Asia/Pacific. Pioneer's core presence is limited in North America, but the firm announced a partnership with EY in 2024, with the aim of expanding Pioneer's penetration in this market.

With the broad scope of the solution, it manages a broad array of products and capabilities. The platform encompasses modules for deposits, savings, nonsecured loans, mortgages, and collaterals, just to mention a few. It is a flexible and adaptable solution leveraged through thousands of APIs. It is powered by an in-memory event-driven database. The composable platform facilitates integration with third-party ecosystems, while preconfigured and autoupdated compliance and business functions allow for scale. The platform can run on AWS and GCP.

Strengths

- SAP has supported the financial services industry for decades, and that expertise and credibility is inherited by the Pioneer spin-off. From this perspective, Pioneer can bring both software and infrastructure expertise to bear.
- The solution provides templates and best practices for a number of areas, such as business processes, general ledger, and billing and invoicing type of ERM capabilities, which can potentially improve speed of implementation.

Challenges

- SAP Pioneer is still dependent on SAP to a significant extent. SAP Pioneer may therefore not always have the authority to act as a single point of contact and enact decisioning without prior alignment with SAP, but this dependency and perception is likely to diminish over time.
- While the combination of software and infrastructure provided by the same (or in this case, closely connected) organizations can be a benefit for smaller banks, SAP's infrastructure technology is often viewed as complex and expensive, potentially creating a challenge for many banks.

Consider SAP Pioneer When

- The Pioneer platform is most suitable for a start-up bank or monoline fintech that has limited technology staff and skills and therefore must rely on the vendor to provide a solution out of the box to minimize the effort required for a deployment and subsequent operations.
- The solution is also suitable for large banks that seek to replace their entire core solution progressively over time or are seeking to augment an existing core infrastructure with some specific capabilities like virtual account management.
- Institutions that already have a significant investment in and have adopted other SAP technologies and platforms could benefit from expanding on the existing environment with relative ease.

TCS

TCS is positioned in the Contenders category in this 2024 IDC MarketScape for North America digital core banking platforms.

This TCS BaNCS for Banking evaluation is based on desk research and publicly available information as TCS chose not to actively participate in this evaluation.

Mumbai, India-based Tata Consultancy Services (TCS), a subsidiary of Tata Group, was founded in 1968 as Tata Computer Systems. It is a global technology firm, with over 150 offices globally, employing over 600,000 people.

TCS is primarily known as a systems integration company providing consulting, development, product, and implementation services to 14 industries, including banking. The TCS BaNCS software that TCS provides to the banking industry began life in Sydney, Australia, as part of the Financial Network Services (FNS) group, implemented at the time at Australian and New Zealand banks and credit unions in the 1970s and 1980s. In 2005, TCS acquired FNS and took over the continued development and deployment of the TCS BaNCS product. Based on desktop research, IDC estimates that TCS BaNCS is implemented as a core platform at a small handful of banks in North America — the most recent being the announcement of a bank with \$20 billion in assets in 2024 that will deploy TCS BaNCS.

In addition to supporting the needs of the capital markets and insurance industries, TCS BaNCS for Banking supports general banking functionality, including:

- Payments
- Wealth management
- Reconciliation
- Corporate lending origination
- Risk management
- Account opening
- Treasury services

The platform uses a microservices-based banking architecture, qualifying it as a digital, cloud-native platform, and can operate on Amazon Web Services, Microsoft Azure, and Google Cloud Platform, as well as on the TCS BaNCS Cloud as a software-as-a-service solution.

The TCS BaNCS platform features:

- An API-first approach to banking product development

- TCS BaNCS Marketplace — an open ecosystem for partner solutions to interoperate with TCS BaNCS
- Componentized workloads
- AI-enabled analytics components
- An enterprise data layer
- An omni-channel layer for customer experience
- Regional-specific compliance for areas like KYC, AML, and FACTA

Strengths

- TCS has focused on the financial services industry for decades and knows this space very well. TCS has the breadth of staff and services to not only support the software side of core banking but also include advisory and consulting services from strategy to development to implementation and operations.
- Per the qualifications of this study and based on desk research, TCS BaNCS represents a modern, digital, and cloud-native offering that can be implemented either all at once or in a progressive transformation approach to reduce deployment risks.
- TCS BaNCS is extensible to support banking-adjacent lines of business like payments, wealth management, and treasury, making it more appealing for banks that want to minimize the number of platforms and partners and still have access to a modern platform.

Challenges

- Based on desk research, the TCS BaNCS core platform is in the nascent stages of adoption in North America. Since TCS did not participate in this research, it is unclear what the organization is doing from a product or support perspective to overcome that challenge. The recent win at a Missouri-based institution (with \$20 billion in assets) is a good step in this direction.
- TCS BaNCS offering is currently undergoing transformation in its positioning and offering to the market. This transformation may influence its market strategy as well as priorities as it moves forward.

Consider TCS When

TCS BaNCS is an option for most tier 2 and 3 community and regional banks looking to modernize their core with a modern, API-led, and cloud-native platform.

Temenos

Temenos is positioned in the Leaders category in this 2024 IDC MarketScape for North America digital core banking platforms.

Temenos was founded in 1993 and has its headquarters in Geneva, Switzerland. The company has a staff of nearly 6,000 employees located worldwide that serves clients in virtually every country in the world.

The company has a broad portfolio of services and products covering retail and corporate banking, wealth management, and private banking. To sustain its expansion, it has developed a strategic growth program leveraging:

- Continued acceleration of cloud and SaaS adoption in banking
- Focus on North America as a strategic growth target
- Increasing penetration in larger institutions (including a recent win at a United States-based bank with \$151 billion in assets)
- A partner-first approach, including sales partners for localization

The Temenos Core Banking solution portfolio is a digital, cloud-native, and cloud-agnostic composable microservices-based platform. The solution is positioned for banks to compose, extend, and deploy banking capabilities at scale via cloud. It can be deployed as SaaS should the bank want, or it can also be deployed on premises.

The platform can support segments such as retail banking, commercial and small to medium-sized enterprises, corporate banking, and private banking/wealth management. In addition to supporting traditional banks, the platform is also targeted for digital banks and/or monoline fintech firms, which the platform supports with banking-as-a-service (embedded banking) capabilities.

Interestingly, Temenos also includes an ESG aspect to its technology strategy as it monitors and modifies the platform to increase the efficiency of its code.

Strengths

- Temenos supports a broad and global customer base allowing the company to curate best practices from customers worldwide for the benefit of other clients.
- Temenos has quite a strong partnership ecosystem, including systems integrators, technology partners, and developers, allowing it to introduce innovation quickly.
- Temenos has earned a reputation with its clients for being client centric and collaborative in its approach to development and problem-solving.
- Temenos' focus on code efficiency will serve both the provider and bank in the long run as the industry moves to improved sustainability in its operations.

Challenges

- As a larger and more traditional provider, Temenos faces competitive threats, potentially creating a perception that Temenos cannot be nimble enough to overcome them.
- Until recently, Temenos' larger installed client was a bank with \$70 billion in assets, potentially raising concerns about scalability, despite Temenos itself conducting scalability tests. Winning this large client could dispel doubts, but it is yet to be deployed there.
- As a relative newcomer to the North American market, Temenos faces competitive pressures from those with established presence in the United States and Canada.

Consider Temenos When

- The Temenos platform is a broad-breadth platform that can support many types of organizations due to its composability and modularity, enabling solutions to be created for many different client needs, business lines, and size.
- The solution has been proven to be both reliable and resilient and work well in any type of environment, which is a benefit for institutions where overall infrastructure supporting the solution may be weaker.
- Recent wins in the North American market make Temenos a viable alternative as a provider that has tenure and credibility in financial services globally and breadth in client sizes from small to superregional.

Thought Machine

Thought Machine is positioned in the Major Players category in this 2024 IDC MarketScape for North America digital core banking platforms.

Thought Machine was founded in 2014 by Paul Taylor, a former Google AI and speech technology engineering lead in London, the United Kingdom. The company remains headquartered in London with major offices in New York, Singapore, and Sydney. Thought Machine currently employs over 500 employees.

The company was founded with a mission to create modern technology that allows banks to leverage the designs and software practices of the modern age and solve the problems of legacy infrastructure that continue to affect the banking industry.

Thought Machine launched its core banking platform, Vault Core, in 2015. The platform was built entirely from scratch as a cloud-native and cloud-agnostic technology to replace monolithic, legacy core banking systems. Vault Core features a distributed, event-driven architecture that uses microservices and Kubernetes for container

orchestration. The platform has been designed as a "headless" core banking system that uses APIs for all communication with easy integration and minimal impact on existing infrastructure within the bank. Its cloud-native architecture, designed extensively for cloud service providers, allows it to take advantage of the scalability capabilities of cloud service providers. Vault Core sets itself apart from its competitors because of the separate configuration and platform code, allowing the bank to configure and launch banking products without modifying system code. Banks can define and customize any banking product as a smart contract, such as changing interest rates, term length, or any other parameter within the smart contract itself. Every product within Vault Core is paired with a smart contract that runs independently of the platform code, allowing the bank to change products and services without relying on Thought Machine. Smart contracts are written in Python, a common programming language, reducing training time for product management and enabling the bank to build and launch products relatively quickly. Smart contracts also mimic existing product functionality, allowing for relatively quick and easy migration of existing products.

Vault Core can be deployed on AWS, Microsoft Azure, GCP, and other cloud infrastructures leveraging Red Hat OpenShift. The cloud-native design of the platform allows for seamless deployment across all cloud service providers while maintaining a consistent experience. It can also be deployed on a multicloud setup.

Strengths

- As a headless core, Vault Core seems better suited for institutions that have highly complex environments where the bank already has successful omni-channel and line-of-business products in place.
- The architecture and smart contract functionality are viewed as quite a unique proposition. Banks looking for longer-term future-proof platforms that can stay competitive for longer life cycles may consider Thought Machine as an ideal solution.
- As a smaller firm, Thought Machine is more likely to collaborate with its clients to ensure that a core modernization project is successfully accomplished.

Challenges

- The Thought Machine platform requires vision and leadership from the bank to obtain good results. Thought Machine places itself as a technologist-driven organization that needs a strong banking counterpart to create better outcomes for the transformation.
- Vault Core implementation requires a higher level of in-house expertise and technical skill than is typically the case at most institutions. In markets where

these skills are in short supply, implementation may run into manpower and skill issues.

- Vault Core is not a full-breadth platform and requires API-led connections to multiple partners to provide services that would constitute a "complete" core banking system in a legacy world.

Consider Thought Machine When

- Large banks with a complex environment of existing systems or with unique needs that cannot be easily fulfilled by all-in-one platforms may find Thought Machine's proposition to be a strong one.
- Banks across all tiers with high levels of technology leadership and sophisticated in-house technical capability to support the implementation and operation of the solution should also consider Thought Machine.
- Digital banks as well as traditional banks looking to create new product lines or services as "sidecar" brands coexisting with their existing products may find Thought Machine's experience and knowledge in this space to be compelling.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis, or strategies axis, indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each individual vendor within the specific market segment being assessed.

The criteria used in this IDC MarketScape (and the resulting position in Figure 1) are across dual dimensions of strategy (plans and where the vendor is headed) and

capability (where the vendor is today in terms of capabilities). Each element within strategy and capability is then assigned a weighting based on the relative importance of each criterion in the opinion of IDC Financial Insights and feedback from client references.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

This IDC study represents the vendor assessment model called IDC MarketScape. This research is a quantitative and qualitative assessment of the characteristics that explain a vendor's success in the digital core banking system space and helps assess current and anticipated performance in the marketplace. This is the first vendor assessment in this area published by IDC Financial Insights and is one of three such evaluation documents. This version of the IDC MarketScape focuses on vendors that have implemented digital core platforms in North America. The other two documents represent the same overall evaluation but are focused on vendors implementing digital core systems in Asia/Pacific and Europe.

This study assesses the capability and business strategy of 10 vendors with core banking platforms that align with the more open and cloud-native architectures that are the hallmarks of the next generation of core banking. This evaluation is based on a comprehensive framework and set of parameters expected to be conducive to success in providing organizations with insights into digital core banking platforms.

For the purposes of this evaluation, IDC Financial Insights focuses on digital banking core technology that:

- Enables deposit, lending, and/or transaction processing (consumer and corporate banking)
- Builds functionality using APIs
- Uses a microservices/containerized approach (Kubernetes, Docker, etc.), enabling scalable cloud deployment

- Enables autoscaling
- Allows for open data architectures

Market Definition

A bank's core banking solution is the heart of the bank's operations. It provides not only the "vault" for the deposits held on behalf of its customers but also the provision for customer, account, and product data. Because of the breadth and complexity of this platform, and the evolution over the years as the monolith that drives almost all fundamental processes, the core platform has become rigid and expensive to maintain and update to keep up with an increasingly dynamic world. For this reason, almost all institutions in North America have, plan to, or are considering a shift to modern core platform architectures that are inherently more open and agile in their ability to respond to new products and services and that are more flexible in terms of deployment across traditional datacenters and as software-as-a-service, cloud-native platforms. IDC has termed these platforms as *digital core banking systems* or *platforms*.

IDC Financial Insights conducted an IDC MarketScape assessment, evaluating various digital core banking platforms revealing that there are different approaches to how a digital core banking solution can be implemented, from a "bank-in-a-box" platform that provides most, if not all, banking functionality in a standard delivered system to a framework approach that is open and interoperable in the complex infrastructures in place in the largest banks in the world. This divergence in implementation was considered during the evaluation of digital core providers in North America.

Strategies and Capabilities Criteria

This section includes an introduction to market-specific definitions and weightings. IDC Financial Insights believes solutions and technological partners should be evaluated on the characteristics outlined in Tables 1 and 2 to be relevant to the banks in North America seeking digitally native core banking solutions. The criteria used were weighted to reflect the consideration that the analyst believes some factors are more critical than others in maximizing market opportunities, realizing market success, reducing risks, and generating value for customers.

TABLE 1**Key Strategy Measures for Success: North America Digital Core Banking Platforms**

Strategies Criteria	Definition	Weight (%)
Delivery	Rating the delivery partner's breadth	10.0
Financing	Rating the ability to fund growth	5.0
Innovation — strategy	Rating how well the vendor is able to innovate	20.0
Growth	Rating the growth capabilities in customers and markets	20.0
Collaboration	Rating the ability to grow and manage the partnership network	10.0
Industry expertise	Rating the vendor based on the knowledge of the industry	25.0
Functionality or offering strategy	Rating the vendor based on R&D pace and productivity	10.0
Total		100.0

Source: IDC, 2024

TABLE 2**Key Capabilities Measures for Success: North America Digital Core Banking Platforms**

Capabilities Criteria	Definition	Weight (%)
Functionality or offering	Rating the vendor's scope of businesses and segments covered by solution, the work and effort needed to make changes or additions to the products, components and overall solutions, and flexibility of solution in terms of configuration/parametrization and multicloud infrastructure	26.0
Technology	Rating the vendor's level of developing scalability, availability, elasticity and automation, and processes and orchestration of business processes	15.0
Regulatory compliance	Rating the vendor's ability to be compliant with regulatory requirements	4.0
Implementation services	Rating the vendor's level of flexibility to have systems integrator chosen for implementation (either proposed by the bank or vendor) and that the solution implementation process is manageable from a client standpoint	14.0
Ecosystem	Rating the vendor's partner technological complementarity	10.0
Pricing	Rating the vendor's level of flexibility of the pricing model	4.0
Range of services	Rating the availability of a complete Islamic banking capability	1.0
Customer satisfaction	Rating the vendor based on the interviews rank of the overall cooperation by customers	5.0
Business continuity planning	Rating the vendor's level of having a prudent business continuity process	4.0
Innovation	Rating the vendor based on how well the solution brings new solutions to existing or potential problems or improves its application architecture	5.0
Training	Rating the vendor based on how much training is needed to operate the platform/solution	2.0
Customer service delivery	Rating the vendor based on how much the customer can manage the solution through self-service	10.0
Total		100.0

Source: IDC, 2024

Related Research

- *2024 Top 10 Trends Driving Technology Investments in Financial Services Worldwide* (IDC #US51743624, March 2024)
- *IDC PeerScope: Core Banking Modernization Practices for Creating Resiliency and Innovation* (IDC #US49938522, December 2022)
- *IDC PlanScope: Core Banking Modernization to Meet Changing Demands* (IDC #US48460621, December 2021)

Synopsis

This IDC study represents the vendor assessment model called IDC MarketScape. This research is a quantitative and qualitative assessment of the characteristics that explain a vendor's success in the digital core banking system space and helps assess current and anticipated performance in the marketplace. This version of the IDC MarketScape focuses on vendors that have implemented digital core banking platforms in North America.

Regardless of the bank size, technological expertise, or line of business, this IDC MarketScape considers the technology providers that currently operate in the North American market and provide modern, digital core platforms to banks and credit unions to improve time to market, agility, and efficiency for this important platform.

"A bank's core system is at the heart of almost everything it does, from the vault that stores the customers' financial assets to the products and services that drive revenue and profitability for the institution," said Jerry Silva, program vice president at IDC Financial Insights. "For this reason, this IDC MarketScape is an important reference for any institution that is considering an update and/or replacement of their critical core banking infrastructure."

ABOUT IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets. With more than 1,300 analysts worldwide, IDC offers global, regional, and local expertise on technology, IT benchmarking and sourcing, and industry opportunities and trends in over 110 countries. IDC's analysis and insight helps IT professionals, business executives, and the investment community to make fact-based technology decisions and to achieve their key business objectives. Founded in 1964, IDC is a wholly owned subsidiary of International Data Group (IDG, Inc.).

Global Headquarters

140 Kendrick Street
Building B
Needham, MA 02494
USA
508.872.8200
Twitter: @IDC
blogs.idc.com
www.idc.com

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