

CELENT

 **CELENT Awards 2022**

RETAIL DIGITAL BANKING PLATFORMS: INTERNATIONAL EDITION

2022 xCelent Awards, Powered by VendorMatch

Bob Meara

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This authorized reprint contains material excerpted from a recent Celent report profiling and evaluating 13 different retail digital banking systems sold globally. The full report description can be found at Retail Digital Banking Platforms: International Edition.

This reprint was prepared specifically for Intellect Design Arena, but the analysis presented has not been changed from that presented in the full report.

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EXECUTIVE SUMMARY

Digitalization of customer engagement has come a long way since Celent's 2019 vendor comparison. While commoditization has marched on, Celent finds that there is still room for opportunity to differentiate. For those financial institutions that are striving to raise their digital bar, we have undertaken a robust vendor analysis among retail digital banking vendors serving international markets.

Celent has cast a wide net to ensure that it includes relevant vendors worldwide. Figure 1 displays the 13 vendors included in this report by headquarters location.

Figure 1: Vendors Covered in this Report



Sources: Vendor RFIs, Celent

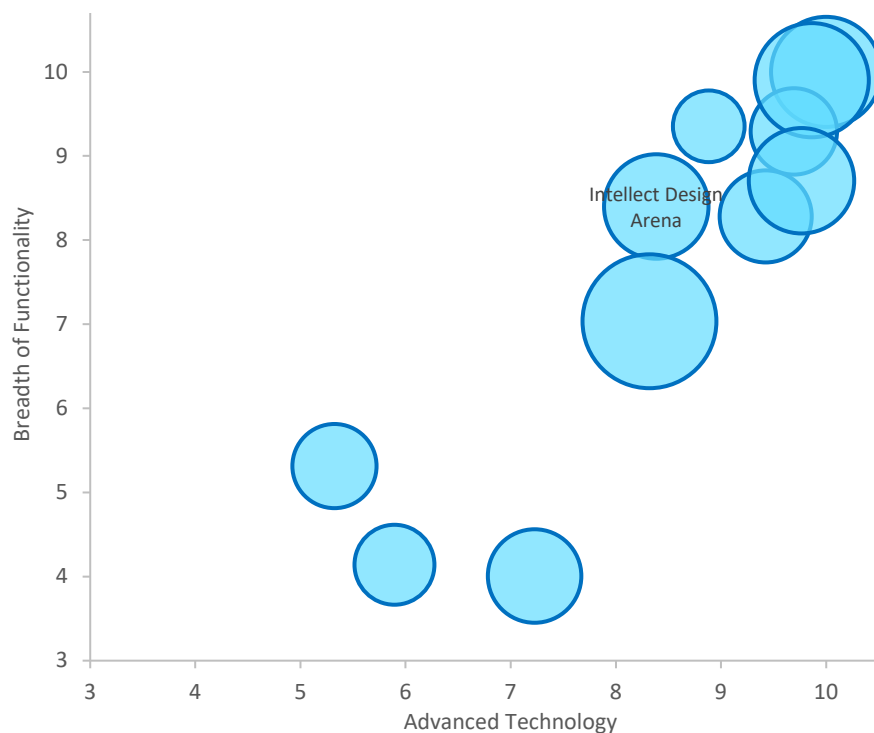
To help financial institutions (FIs) better understand the vendor landscape and compare vendors, Celent developed its ABC methodology, which positions and awards vendors across three dimensions: **A**dvanced Technology, **B**readth of Functionality, and **C**ustomer Base and Support. Our methodology offers unrivaled comparative analysis across critical decision dimensions.

We are pleased to announce this year's xCelent winners for Retail Digital Banking, as shown in Figure 2.

Figure 2: XCELENT 2022 Winners for Retail Digital Banking Platforms

Advanced Technology	Breadth of Functionality	Customer Base and Support
For its composable, cloud-native technical architecture	For its industry-leading functional capability	For its strong client base across asset tiers and geography
Sources: Vendor RFI responses, Celent analysis		

In order to enable FIs to have a comprehensive aggregate view at their fingertips, we have compiled an ABC vendor view in Figure 3.

Figure 3: Celent ABC Vendor View: Retail Digital Banking Platforms

Sources: Celent proprietary ABC Model, Celent analysis, and Vendor RFI responses

In addition to Celent's comparative analytics, we have compiled rich vendor profiles that each include a solution overview, advanced technology metrics, key functionality, customer base and feedback, and pricing.

Digital banking platforms remain a hotbed of development activity, with most vendors on rapid or continuous release cycles. Thus, if it has been a year since you have compared solution capabilities, your insight is out of date. This report will quickly get you current.

Celent's Digital Banking ABC Series

This report is part of a series that Celent has published on digital banking platforms. There is a companion report on Retail Digital Banking Platforms that will be published in December 2022

In 2021, Celent published [*Corporate Digital Banking Platforms: North America Edition*](#) and [*Corporate Digital Banking Platforms: EMEA/APAC/LATAM Edition*](#).

Vendors in Scope

Celent approached 35 retail and business digital banking platform vendors headquartered across the globe, ranging from small and region-specific to large international providers. Twenty-five vendors, including all but one of the large international vendors, chose to participate. Most participated in the complete ABC analysis, including completing a detailed RFI, providing reference clients, and engaging in solution briefings and demonstrations. Given the diversity of participants, we are publishing three reports:

1. North America: Solutions for Midsize and Large Banks (9 vendors)
2. North America: Solutions for Community Financial Institutions (12 vendors)
3. International: Solutions with substantive geographic footprint outside North America (13 vendors)

Table 1 displays all the vendors, their participation level, and the edition in which they are included.

Table 1: Alphabetical List of Vendors and Their Participation

Vendor	Both Retail and SMB editions ¹	North American Editions		International edition ¹
		Mid-Lg FI edition ¹	Small FI edition ¹	
Access Softek	✓		✓	
Alkami				
Alogent	✓		✓	
Apiture	✓		✓	
Backbase	✓	✓		✓
Bottomline	SB	✓	✓	
BPC	✓			✓
Cobiscorp				
Computer Services Inc.	✓		✓	
Comviva				
CR2	✓			✓
Diasoft	✓			✓
Dragonfly FT	SB	✓	✓	

Vendor	Both Retail and SMB editions ¹	North American Editions		International edition ¹
		Mid-Lg FI edition ¹	Small FI edition ¹	
ebankIT				
Finastra	✓		✓	
FIS	✓	✓	✓	
Fiserv	✓		✓	
i-exceed	✓	✓		✓
InfoCorp	✓		✓ (RB)	✓
Infosys Finacle	✓	✓		✓
Intellect Design Arena	RB	✓		✓
Jack Henry & Associates				
Narmi	✓		✓	
NCR	✓	✓ (RB)	✓	
Objectway	✓			
Oracle	✓	✓		✓
Profile Software				
Q2	✓		✓	
SAP Pioneer	✓		✓	✓
Software Group	✓			✓
Sopra Banking Software				
TCS	✓	✓	✓	✓
Technisys	RB	✓		✓
Temenos				
Unisys				

¹ ✓ = Full ABC evaluation; ✓ = Partial evaluation (AB evaluation); ✓ = Summary
Source: Celent

DIGITAL BANKING’S HIGH RATE OF CHANGE

Technology advances and evolving customer preferences point to a growing opportunity for banks to differentiate themselves. Vendors are responding in rapid fashion, offering institutions highly evolved platforms that bear little resemblance to those available just a few years ago.

How Solutions are Advancing

From our myriad interviews and demonstrations, we have distilled six ways digital banking platforms are rapidly advancing (Figure 4).

Figure 4: Trends in Digital Banking Platforms

1	Evolving to cloud-native, composable technical architectures	4	Embracing open ecosystems and marketplaces
2	Common platforms for retail, business and corporate banking clients	5	Embedding AI to support voice banking, virtual assistants, proactive alerts, and more
3	Supporting the entire customer lifecycle—not just account servicing	6	Asserting a greater role in customer engagement beyond digital self-service

Source: Celent

1. Race to the Cloud

Not long ago, deploying a digital banking platform in the cloud was a rarity. No longer. Now, Celent finds every participating vendor with some public cloud deployments—some exclusively so. More commonly, vendors offer multiple deployment options, including multicloud, and they are doing so with modernized technology architectures that are composable and cloud native. Vendors who aren’t there yet typically have a plan to get there. Figure 5 compares vendors in three ways: percent of clients deployed in the cloud, (0=100%), proportion of the system architected as microservices, and the public cloud options supported.

Figure 5: Vendors' Race to the Cloud Shows Clear Leaders

Vendor	% Cloud Deployments	% Microsvcs.	Public Cloud Options			
			Azure	AWS	GCP	Other
Intellect Design Arena	○	●	✓	✓		

Key: ✓ = supported; ○ = under 25%, ◐ = 25 to 50%, ◑ = 50 to 80%, ◒ = over 80%

Source: Vendor RFIs, Celent analysis

2. Single Platform Approach

Just as vendors have migrated from separate products for online and mobile banking, they have advanced their offerings to offer separately licensable products for retail and business banking on a common platform. Some further offer corporate banking capabilities on the same platform (Figure 6).

Figure 6: Single Platform for Retail and Business Banking Is Commonplace

Vendor	Product	RB	BB	CB
Intellect Design Arena	CBX Retail	✓	✓	—

Key: ✓ = single platform supports LoB; — = No offering or separate platform

Source: Celent

3. Supporting the Entire Customer Lifecycle

From the outset, digital banking platforms were designed to provide low-cost and convenient customer self-servicing. Increasingly, platform providers are building or partnering to offer customer origination and onboarding capability. Less commonly, vendors have also provided ways for ongoing proactive customer engagement. These capabilities are key because they create additional value for customers, increase the level of engagement customers have with their financial institutions, and grow customer satisfaction.

Additionally, digital has always been about self-service. Now it is also about assisted service. Modern platforms bundle or pre-integrate digital customer service capabilities so customers can seamlessly engage with their financial institution without leaving the institutions' digital property.

4. Embracing Open Ecosystems and Marketplaces

Modern digital banking platforms are increasingly open. Vendors recognize that their clients want choice in integrating with third party applications and they don't want that choice to come at the price of protracted implementation timelines or heavy up-front integration costs. Vendors are pre-integrating with a growing bevy of third party applications, providing application assistance, and in some cases offering marketplaces of applications with functionality at the ready.

5. Embedding AI

Artificial Intelligence (AI) is increasingly embedded into digital banking platforms and is used to support a variety of use cases, from hyper-targeted marketing to financial resilience (a.k.a. personal financial management or PFM) and a variety of proactive alerts. These capabilities are oftentimes native to the platform but are more commonly provided through pre-integrations to third party solutions. In addition, vendors are embedding conversational AI capabilities to support intelligent virtual agents and voice banking use cases out of the box.

6. Asserting a Greater Role in Customer Engagement

For decades, each of the growing number of retail delivery "channels" brought its own technology stack and organization to manage it. That is slowly changing, and the digital banking platform vendors are catalyzing this welcome change. To varying degrees, each of these channel systems performed the same basic functions but served different end users; digital channel platforms served customers, platform sales systems served bankers, teller automation systems served tellers, and contact center platforms served agents. This approach introduces significant technical debt

and stifles an institutions' ambition towards agility because of the multiple and redundant system interconnection points.

In sharp contrast to this approach, many vendors are architecting their platforms to serve as an omnichannel customer engagement platform, one that delivers a single system of customer interaction that serves all points of engagement—digital self-service, contact center, branch, ATM, and social. While conceptually simple, this ambition is made difficult, in part, because of all the third party hardware and software integrations needed. Nevertheless, a growing number of vendors are headed in this direction—through both native capabilities and integrations to third party applications (Figure 7).

Figure 7: Vendors' Platform Support across Points of Customer Interaction

Vendor	Product	Mobile	Online	Wearables	ATM/ITM	Branch Banker	Branch Teller	Kiosk	Contact Center
Intellect Design Arena	CBX Retail	●	●	●	●	●	●	●	●

● = Available out of the box

● = Available with integration to a separate module provided by this vendor

● = Available with integration to a third party solution

● = Could develop via customization

● = In development

● = Not available /not applicable

Source: Vendor RFI, Celent analysis

HOW BANKS CAN USE THIS REPORT

Through our exhaustive ABC analysis, Celent endeavors to help FIs expedite their vendor evaluations. We also strive to enable FIs to differentiate vendors in an increasingly commoditized solution arena in which absolute technology and functional scores may be close. As a result, we have normalized scores based on the lowest and highest scores based on ratings across many evaluation points.

Contrary to the marketing claims of many digital channel platform providers that their product is the “best” system in the industry, Celent finds that every platform in this report excels in certain areas. On the one hand, this result is not a surprise, as intensified competition between vendors has led to commoditization of many functional and architectural elements. This is to be expected in mature solution categories. On the other hand, it would be easy to conclude that since nearly all the digital channel platforms performed well in at least one area, any of them would be a good fit for an institution. But Celent thinks this would be the wrong approach.

The correct question for a bank to ask is “What is the best digital platform for my institution today?” This broader question of how the strengths and weaknesses of a particular platform measure up to the bank’s own preferences and priorities speaks to the overarching role of solution fit in guiding a bank toward one product over another.

What Is Your Customer Engagement Strategy?

In Celent’s opinion, before selecting a digital banking platform, it is critical to define your institution’s customer engagement strategy. Is your institution primarily seeking a digital self-service solution, or an omnichannel system of interaction? Is your institution pursuing a common digital banking platform to serve multiple lines of business? If so, solutions that already support retail, business and corporate banking clients on a single platform would warrant shortlisting—even if the solutions were not functional standouts in every area.

As you consider your institution’s customer engagement strategy, Celent offers a few guiding principles.

- **Define the long-term technology strategy:** You can’t get somewhere if you don’t know where you’re going. Digital is a given for the industry, and most institutions are well into enterprise-wide digital transformation strategies. Regardless, new emerging questions are adding complexity. When is the right time to migrate to the cloud? How do we take advantage of open banking? How will fintech affect

us? Some vendor partners are better positioned than others for different challenges, but it takes the bank to define the roadmap.

- **Examine your institution's current tech state:** Current state technology examination is beneficial regardless of whether or not an institution is considering migrating vendors. Surprisingly, Celent speaks to many bank executives who have no view into their organization's current technology environment. Not everyone is going to be tech-savvy, but not having a minimal understanding of vendor relationships and tech limitations can severely hinder any larger digital strategy. Along with strategy, this should be one of the preliminary steps taken before any vendors are considered.
- **Details, Details:** The insights contained in this report go well beyond the eye-catching ABC Vendor View diagram of Figure 3. However helpful this perspective may be, it is the result of careful weighing of voluminous detail that makes sense to us. You may have very different set of priorities, which if factored in our analysis, would have resulted in different vendor rankings. Pay attention to the detail in the pages that follow.
- **Start today:** Developments in digital technology and deployment methodologies allow a much greater degree of control and flexibility with your digital properties. Banks need to be path dependent—that is, understanding that where they are today will affect their decisions for tomorrow. Not every institution is able to jump right to full single platform omnichannel across all points of interaction. However, defining achievable, bite-sized goals is the way forward.

Additional Considerations

Stating some qualifications around scoring retail digital banking platforms will provide perspective. Celent recognizes that the strength of any platform is somewhat dependent on the bank involved. A platform ranked low in Celent's rankings may be a good fit for select FIs for various reasons: price, business-specific functionality, target customer base, existing technology environments, etc. For this reason, these rankings are purely the opinion of Celent. Individual banks should use them in the context of their own specific situations.

Celent recommends that clients looking to select a retail digital banking platform should be asking additional questions, as we have outlined below:

Vendor Strength/Pricing

- What is the financial health of the vendor?
- How important is this solution for the vendor? What is the risk it may stop investing in the product suite? Has a recent merger or acquisition affected the go-forward road map for the solution?
- Can we afford it? How flexible is the vendor on pricing approaches? What is my total cost of ownership with this solution?

Feature/Function

- Have we defined our “must have” features and functionality? Who are the vendors that have the capabilities that we require? Where are the gaps? How much customization would be required to deliver our solution?
- Does the vendor support my geographic region’s unique product requirements, particularly required language mastery?
- Is the vendor’s solution written on a single code base, ensuring a consistent customer experience? If not, how are the underlying components integrated to support a unified user interface, seamless cross-channel workflow, consolidated entitlements, federated authentication, and robust reporting?
- Does the vendor have referenceable clients that are of similar size, client base, and geographic reach as our bank?
- What else does the vendor offer in this space? If we start with a specific priority area, can we continue to transform with the same vendor?

Performance/Implementation

- How does the solution fit into our overall technology architecture? How easy or difficult will it be to integrate it with other solutions?
- Will this solution support our current and future volumes? How well does it scale?
- How agile is the solution? How easy is it to add new products, transaction types, and the like?
- Does the vendor offer different deployment options (e.g., on premises, ASP, traditional SaaS, or cloud SaaS)?
- What are the vendor’s implementation and support capabilities?

We lay out these questions as a starting point, although not all of them may be relevant in all situations. Moreover, the questions are not exhaustive. Each client’s situation is unique, and other factors may be more important to them. However, the questions support the vendor differentiation process by focusing on dimensions that are relevant to the individual financial institution and can be compared across multiple vendors. The RFI responses and resulting vendor profiles shed more light on each company.

We hope this report will serve to enlighten bankers to rise above the occasional hype and frequent superficial claims of one solution or another being the best and to reframe the conversation in terms of each institution’s strategic needs.

VENDOR LANDSCAPE

The vendors included in this report span geographies, client segments, and size. The landscape is vibrant with relatively young and mature vendors competing head-to-head across market segments and geographic regions.

Geography

Table 2 details the profiled vendors. The regional breakdown is North America (NA), Europe/Middle East/Africa (EMEA), Asia-Pacific (APAC), and Latin America (LATAM).

Table 2: Profiled Vendors and Regional Client Footprint

Vendor	Product	NA	EMEA	APAC	LATAM
Intellect Design Arena	CBX Retail	■ ■	■ ■	■ ■	

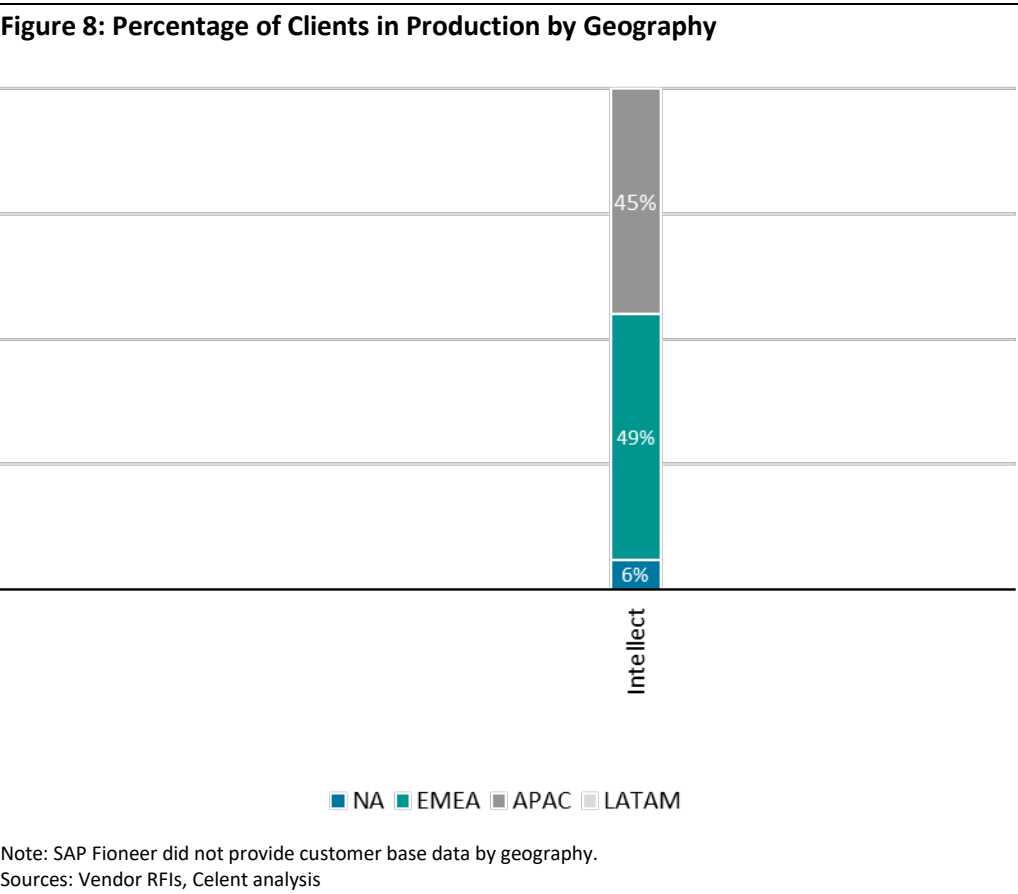
Key: ■ ■ = 3 or more clients in production in regions; ■ = 1–2 clients; — = Not in region

Sources: Vendor RFIs, Celent analysis

Note also that even if a system is shown as implemented in only one global region, the vendor may still be capable of supporting implementations in other regions. Financial institutions interested in a particular system may wish to contact the vendor for further discussion and due diligence on their interest and ability to support a new market.

We asked vendors to provide the total number of retail banking clients in production with any version of their solution by region. Figure 8: Percentage of Clients in

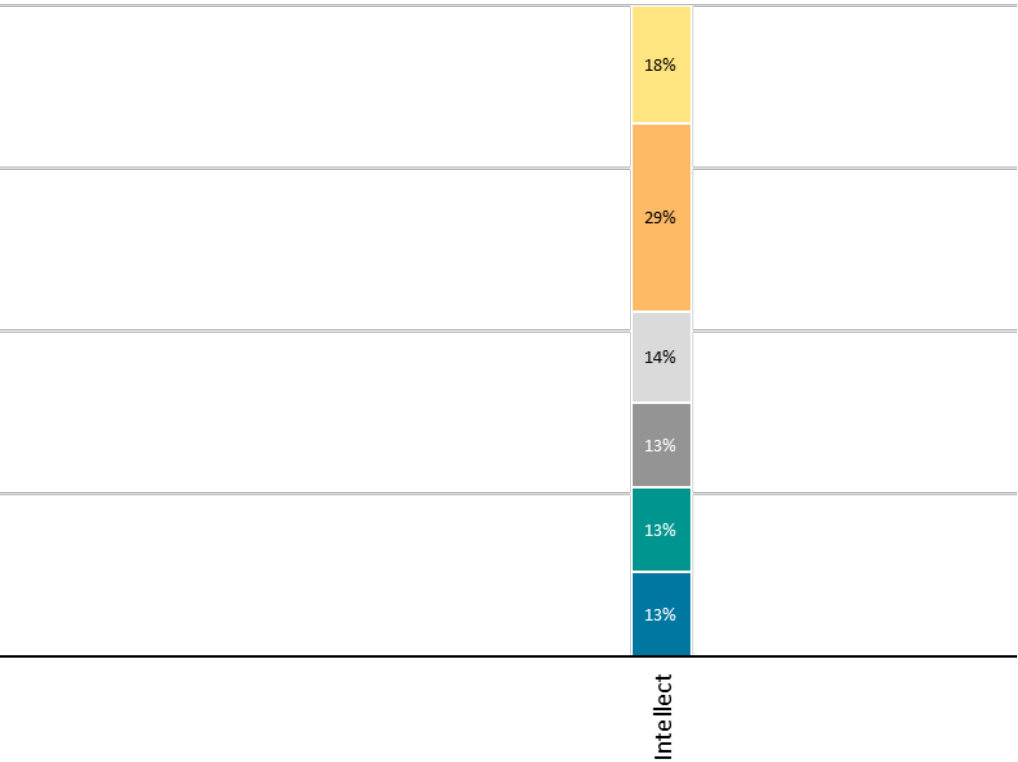
Production by Geography depicts the percentage of a vendor’s clients (installs for some vendors) by geographic region (North America, Europe/Middle East/Africa, Asia-Pacific, and Latin America).



Customer segments

We also asked vendors to provide the total number of retail banking clients by asset tiers, defined in Figure 9: Clients in Production by Asset Size

Figure 9: Clients in Production by Asset Size



■ >\$500B ■ \$100-\$500B ■ \$50-\$100B ■ \$10-\$50B ■ \$1-\$10B ■ <\$1B ■ CUs ■ Other

Note: SAP Fiona and Oracle did not provide customer base data by asset tier. Infosys Finacle provided customer data for Celent analysis but did not permit its' disclosure.
Sources: Vendor RFIs, Celent analysis

CELENT'S ABC VENDOR VIEW

XCELENT Awards 2022

To help financial institutions better understand the vendor landscape and compare providers, Celent developed its ABC methodology, which positions vendors across three dimensions: **A**dvanced Technology, **B**readth of Functionality, and **C**ustomer Base and Support.

While this is a standard tool that Celent uses across vendor reports in many different areas, each report will define the ABC categories differently. The final rating is determined by Celent’s score of these factors as well as Celent’s view of the relative importance of the factors as they apply to both solution and vendor capabilities. The latter determines the weight Celent places on each variable.

It is important to note that we normalized all scores on a 4–10 point scale. As a result, we are able to show relative scores for each ABC edition and, importantly, help FIs differentiate vendors across their peer group. We chose a lower bound of 4 to reflect the maturity of this solution category.

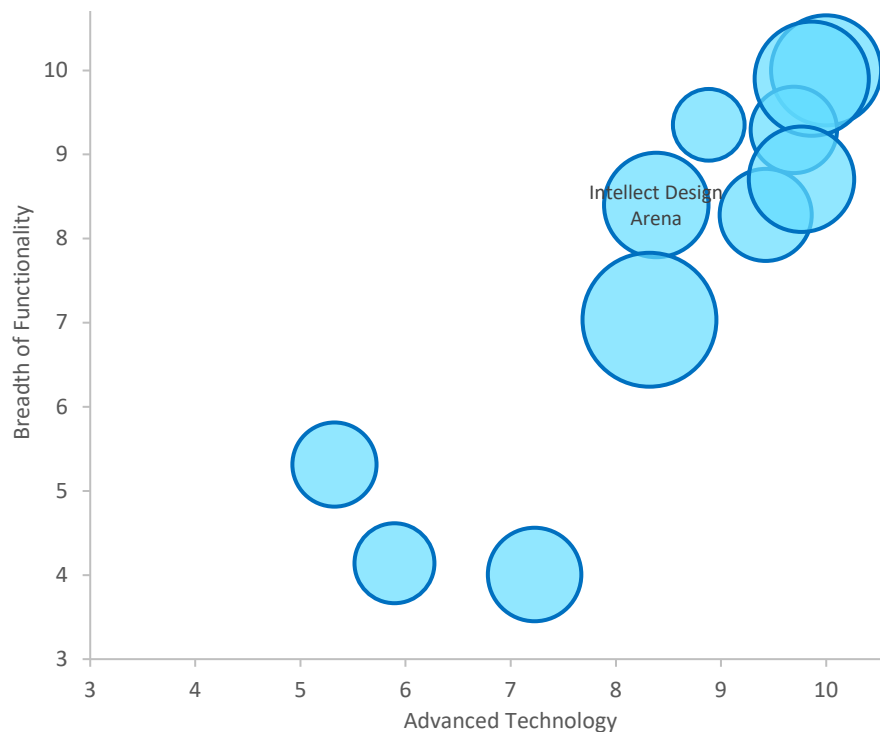
ABC Vendor View

The Celent ABC Vendor View shows the relative position of each solution evaluated. Each vendor solution is positioned relative to others in the analysis. Within this framework, the top performers in each ABC dimension receive a corresponding XCELENT Award. This year’s winners for retail digital banking platforms are:



Figure 11 displays the relative scoring of each solution, with **Advanced Technology** on the horizontal axis and **Breadth of Functionality** on the vertical axis. The bubble size for each vendor represents the third dimension, **Customer Base and Support**. Both axes are normalized, so that the best score among vendors equals 10. Both breadth of functionality and advanced technology scores are tightly grouped among the 12 vendors.

Figure 11: Celent ABC Vendor View: Retail Digital Banking Platforms



Sources: Vendor RFI responses, Celent analysis

Institutions evaluating vendors need to look beyond composite scores into specific functional capabilities that are of most interest. The next section offers Celent guidance to financial institutions making a digital banking platform vendor selection.

Advanced Technology Scoring

Celent compared the underlying technologies used in each of the vendor applications. Celent's aim in comparing technology attributes is to differentiate solutions in ways that would be useful to most institutions. We scored each vendor's technology platform based on the eight factors shown in Table 3, assigning a weight to each attribute based on our view of its importance. As a last step, we normalized the scores into a 10-point scale.

Celent continually evaluates its ABC model to ensure that it is adding new metrics that reflect advanced technology. For example, a platform built on a modern tech stack is not the norm yet. To recognize vanguard vendors, Celent has enhanced the metrics included in its “A” analysis to include prevalence of private and public cloud deployment, support for specific cloud service providers (CSPs), percent of application architected as microservices, and percent exposed as APIs.

Table 3: Advanced Technology Attributes

Specific metrics vary by category. Key: ● = highest score, ○ = lowest score.

Normalized Advanced Technology Score	
<div><div></div><div>Intellect</div><div>●</div></div>	
Integration Methods, Services, and APIs (10%)	Scores favor larger numbers of integration mechanisms, well-published API specifications, and API training programs.
Deployment Options (10%)	Scores favor larger numbers of deployment options.
Internationalization and Localization (10%)	Scores favor broad language and currency support.
Application Security (5%)	Scores favor support for a wider variety of security mechanisms.
SaaS Capabilities (20%)	Scores favor multi-tenant architecture, ease of system upgrade, high cadence of upgrades, microservices architecture, containerization options, and support for multi-cloud deployment.
% Exposed as APIs (5%)	Scores favor support for a wider variety of security mechanisms.
Demo rating of technology (10%)	Qualitative analyst impression. Scores favored demonstrable live functionality.
Customer Feedback (30%)	Average feedback score from direct customer input across technology, integration, and upgrade satisfaction ratings.
Sources: Vendor RFIs, Celent analysis	

Table 4 shows each vendor’s scores across the advanced technology attributes.

Table 4: Advanced Technology Attribute Detail

	Intellect
Integration Methods, Services, and APIs	<div><div></div></div>
Deployment Options	<div><div></div></div>
Internationalization and Localization	<div><div></div></div>
Application and Cyber Security	<div><div></div></div>
SaaS Capabilities	<div><div></div></div>
% Exposed as APIs	<div><div></div></div>
Demo rating of technology	<div><div></div></div>
Customer Feedback (technology)	<div><div></div></div>

Breadth of Functionality Scoring

The majority (80%) of the breadth of functionality score is derived from Celent’s scoring of detailed RFI functionality questions. Similar to our upgrades of the “A” component of the ABC model, we continually evaluate what should be added/deleted to the “B” dimension to ensure that we include new value-adding functionality.

Scoring favored those who have a larger portion of functionality in production and live at a client, as opposed to supported functionality not in use by clients or on the road map. As a last step, we normalized the scores into a 10-point scale. Here is Celent’s overall breadth of functionality score for each solution.

Table 5: Breadth of Functionality Summary Score

Normalized Breadth of Functionality Score

Intellect	
Detailed Functionality (80%)	Analysis of each vendor’s capabilities across Celent’s Digital Banking Platform taxonomy.
Solution Demo (20%)	Celent’s rating based on a guided demonstration.
Key: ● = highest score, ○ = lowest score. Specific metrics vary by category. Sources: Vendor RFIs, Celent analysis	

Table 6 shows Celent’s scoring of functionality and channel support based on information provided by each vendor. More detail is in each solution profile.

Table 6: Functional Capability Scores

	Intellect
User interface attributes	●
Supporting open ecosystem	○
Financial Wellness capabilities	○
Customer interaction mechanisms	○
Card control capabilities	●
Money movement and transactions	○
ID/Authentication and Security	○
Alerts	●
Key: ● = highest score, ○ = lowest score. Specific metrics vary by category. Source: RFIs, Celent analysis	


Customer Base and Support Scoring

Celent measures the C dimension across a broad array of metrics, including customer base (total and share on most recent version), sales momentum (sales past two years), and customer feedback (Table 7). Customer/sales is weighted 60% and customer feedback 40%. Celent encourages FIs to read the vendor profiles to view the specific metrics that are most meaningful to them. Note that for customer feedback to be scored, Celent required at least three client reference surveys to be completed for inclusion in a North America edition and in the international edition, respectively.

For a complete list of the 30+ metrics included in the below categories, please see Appendix I, **Figure 15**. As a last step, we normalized the scores into a 10-point scale.

Table 7: Customer Base and Support Attributes

Normalized Customer Base and Support Score



Retail Banking Customer Base (35%)	Scores favor larger client counts across large, midsize, and small financial institutions, with Tier 1 and 2 banks weighted more heavily.
Number of New Deals in Past Two Years (20%)	Scores favor larger number of new deals in the past two years.
Most recent version (10%)	Scores favor a higher percentage of clients running the vendor's most recent version.
Global distribution of clients (5%)	Scores favor strength in multiple geographic regions over vendors with a specific geographic focus
Client Reference Feedback: Implementation (15%)	Average client reference feedback score for implementation. If Celent received fewer than two client reference surveys, there was no score for this attribute.
Client Reference Feedback: Post-Implementation (15%)	Average client reference feedback score for post-implementation support. If Celent received fewer than two client reference surveys, there was no score for this attribute.

Key: ● = highest score, ○ = lowest score. Specific metrics vary by category.
Sources: Vendor RFIs, Celent analysis

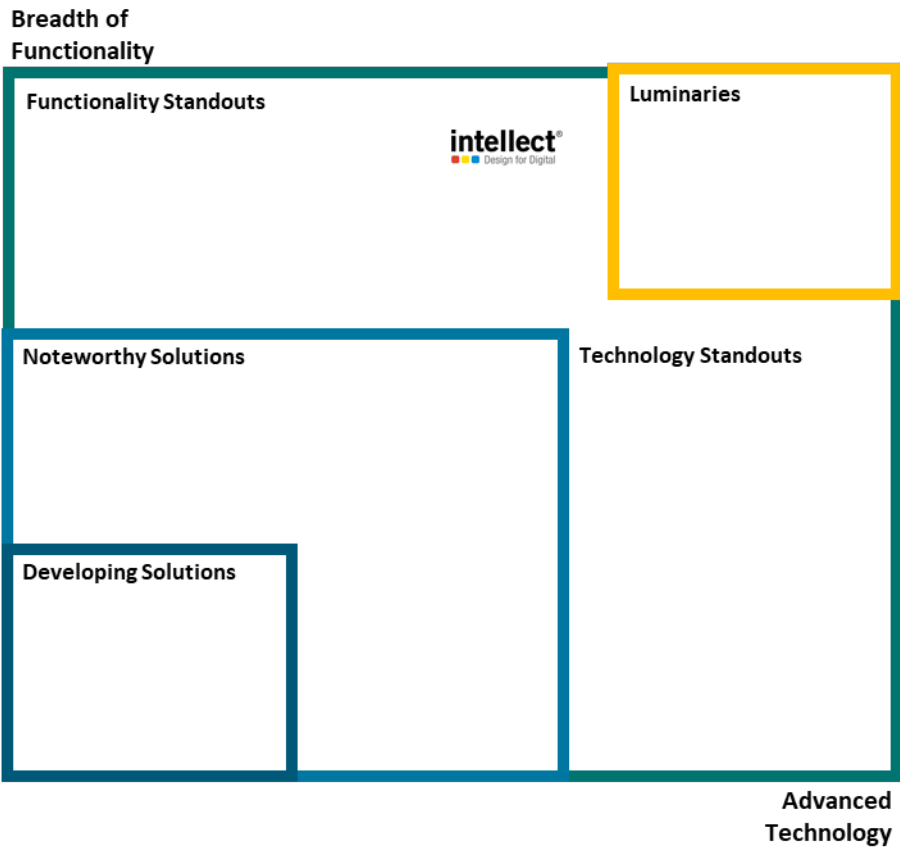
TECHNOLOGY CAPABILITIES MATRIX

In addition to Celent's ABC vendor map, we produce a Technology Capabilities Matrix to offer a categorization of vendors and include vendors that did not participate fully in our ABC analysis. Figure 12 places vendors into five categories based on Advanced Technology (X axis) and Breadth of Functionality (Y axis). Solutions are not ranked within the category but rather are listed alphabetically.

The five designations are:

- **Luminary:** Excels in both Advanced Technology and Breadth of Functionality.
- **Technology Standout:** Excels in Advanced Technology but doesn't have as many features as leading competitors (somewhat lower on Breadth of Functionality). Often newer, these solutions have usually chosen a focused set of functions with which to begin their journey.
- **Functionality Standout:** High on Breadth of Functionality (likely has a large installed base), somewhat lower on Advanced Technology. Often more established, these solutions have built out a robust set of features with technology that may no longer be cutting-edge.
- **Noteworthy Solution:** Relatively low on both dimensions but still worthy of consideration by the right financial institution.
- **Developing Solution:** Typically, a vendor new to the market or an established solution that has not kept pace with the market. Lower on either Advanced Technology or Breadth of Functionality. Has the potential to mature into a more robust offering.

Figure 12: Technology Capabilities Matrix for Retail Digital Banking Platforms



Source: Vendor RFIs, Celent analysis

VENDOR PROFILES

This section profiles each of the 13 vendors and their solutions. Each profile includes a company overview, product overview, product analysis, recent and planned product enhancements, selling and servicing, and Celent company/product assessment. All vendor-supplied information cited in the following profiles was accurate as of October 31, 2022.

Table 8 lists vendors profiled in this report, along with each respective platform. Vendors fully participating with detailed RFI responses and client references have full vendor profiles. Those who did not provide complete RFI detail have abbreviated profiles.

Table 8: Alphabetical List of Vendor Profiles

Vendor	Product Suite	Full	Abbreviated
Backbase	Backbase Engagement Banking Platform	✓	
BPC	SmartVista Digital Banking Platform	✓	
CR2	BankWorld Digital Banking Platform	✓	
Diasoft	Digital Q.Omnichannel		✓
i-exceed	Appzillon Digital Banking Platform	✓	
Infocorp	IC Smart Platform	✓	
Infosys Finacle	Finacle Digital Engagement Suite	✓	
Intellect Design Arena	CBX Retail	✓	
Oracle	Oracle Banking Digital Experience		✓
SAP Pioneer	SAP Omnichannel Banking		✓
Software Group	DigiWave Digital Banking Platform	✓	
TCS	TCS BaNCS Digital Banking Platform	✓	
Technisys	Cyberbank Digital Banking Platform	✓	

Source: Vendors and Celent

About the Profiles

Thirteen vendors and their retail digital banking platforms are profiled in this report. Those ten vendors fully participating in Celent's ABC Vendor View analysis have detailed profiles. Three vendors who partially completed Celent's RFI have

abbreviated profiles. These three vendors provided detailed product briefings and product demonstrations and consented to have profiles included in this report.

Each profile is structured the same way, presenting information about the company, the solution, and Celent's view. Charts provide more detailed information about target segments, key functionality, technology approach, deployment options, etc. For those solutions with client references, we provide a graphical representation of the resulting feedback. The profiles are presented in alphabetical order.

Vendors had an opportunity to review their profiles in this report for factual accuracy. Some of the vendors profiled are Celent clients, and some are not. We present vendor information objectively, regardless of commercial relationship.

INTELLECT DESIGN ARENA: CBX RETAIL

Company and Product Snapshot

Intellect Design Arena is a global financial services technology provider that has four lines of businesses: Global Consumer Banking (iGCB), Global Transaction Banking (iGTB), Risk, Treasury and Markets, and Insurance. It serves over 240 FIs through offices in 97 countries.

Table 1: Company Snapshot

Year Founded	2014
Headquarters	Chennai, India
Number of Employees	5,000+
Revenues (USD)	\$257.33 million
Financial Structure	Public company Bombay Stock Exchange: 538835 National Stock Exchange: INTELLECT
VendorMatch Link	https://www.celent.com/vendormatch/discovery/solutions/867725575

Source: Vendor RFI

Table 2: Product Snapshot

Name	Digital Banking Platform, CBX Retail			
Year Originally Released	2013			
Current Release and Date of Release	20.1/2021			
Frequency of enhancements	Major: Every 12 to 18 months Minor: Every 6 to 12 months			
Revenue Derived from the Product	Not disclosed			
Target Market	Geography	Primarily EMEA, APAC; growing NA		
	Assets	All tiers		
Retail banking customer base	NA	EMEA	APAC	LATAM
	5	37	35	0
Notable Clients	Fifth Third Bank, Bank of Bahrain and Kuwait, Bank for Investment and Development of Vietnam			

Source: Vendor RFI

Celent Assessment

ABC Summary



**Advanced
Technology**



**Breadth of
Functionality**



**Customer Base &
Support**

Celent Opinion



CELENT

Functionality Standout 2022

Intellect Design Arena has been serving banking and finance services clients for 30 years, but its technology has been extensively modernized. Its platform stands out for being cloud-native, API-led, and microservices-based. CBX Retail is one of the few with out-of-the-box customer persona-based tailoring of both UX and functionality. Its client base is dominated by large banks, reflecting the platform's ability to meet their high demands for customization. Customization is further supported by publishing an extensive catalog of functional modules to each client, who license individual pre-integrated modules assembled using its Developer Studio.

Table 3: Celent's View

Strengths and Differentiators	Opportunities
<ul style="list-style-type: none"> Modern tech stack with over 80% architected as microservices Customer persona based UX and functionality tailoring Optional native customer acquisition and onboarding capability Family banking concept is distinctive Marketplace 	<ul style="list-style-type: none"> Cloud deployments are few and recent License cost scales with functionality more than many platforms

Source: Celent analysis

Overview

CBX Retail can support the entire customer lifecycle. It has a built-in ability to create targeted offers to a specific customer person or a customer segment (based on persona). It has a single flow onboarding journey. It offers tools using AI/ML to identify cross-selling opportunities.

Target end-user	Consumer	Business		
	✓	✗		
Support across customer lifecycle	Acquisition	Onboarding	Servicing	Engagement
	✓	✓	✓	✓

Legend: ✓ = Available; ✗ = Not available

Functionality

As shown in Table 4. And Table 5, CBX Retail's functional strength is broad-based, with no areas of significant deficiency. In addition, it offers clients a bevy of separately licensed capabilities beyond the scope of this analysis.

Table 4: Functional Summary

Functional Areas								Points of Engagement Supported						
UI Considerations	Leveraging Open Ecosystem	Financial Wellness	Interaction Mechanisms	Card Controls	Money Movement	ID Authentication & Security	Alerts	Mobile Online	Wearables	ATM/ITM	Branch Banker	Branch Teller	Kiosk	Contact Center
●	◐	◐	◐	●	◐	◐	●	✓	✗	✓	✓	✓	✓	✓

Legend: ○ = Low composite score; ● = High composite score; ✓ = Available out of the box; ✗ = Not available or requiring integration to a third-party solution.

Note: Composite score is normalized and relative to the other vendors (i.e., normalization calculation is based on the high/low score of all vendors). It takes into consideration not only if a functionality is in production but also its availability type (e.g., in production and out of the box results in the highest score).

Source: Vendor RFI

Table 5: Functionality Detail

Function	In Production	Supported but Not in Production	Not Supported
UI Considerations			
Ability to abstract UI (headless UI)	●		
Bank customization of look and feel by end-user segment or profile	●		
End-user customization of the look and feel	●		
End-user ability to flag favorite transactions	●		
Automatic application of oft-used capabilities to a home screen	●		
Persona-based templates for home pages	●		
Leveraging Open Ecosystem			

Function	In Production	Supported but Not in Production	Not Supported
Third party products exposed through platform		Solution can be extended to provide 'dedicated spaces' for a bank's and/or partners' systems. While the internal "members" have a developer document to implement new functionality, the external partners are provided an interface/integration model to link the dedicated spaces to the portal. Intellect or the bank can manage these spaces. Monetization reports are available.	
Fintech partnerships for product distribution		Partnership with a PFM vendor for distributing a white-labelled product with revenue sharing.	
Fintech marketplace native to platform	No		
Implementation assistance for third party apps	Support for PSD2		

Financial Wellness

Budgeting tools		●	
Financial goal setting		●	
Cash flow predictions		●	
Automated savings support		●	
Automated investing			●
Automated loan repayment	●		
View balances and transactions at other FIs from within the app.	●		
See list of recurring charges	●		
View credit bureau scores	●		
Set up recurring payments	●		
Issue stop payment	●		

Customer Interaction Mechanisms

Geolocation beacons			●
Social media platform transactions		●	
Secure messaging	●		
Click-to-call (no dialing necessary)	●		
Live text chat (With a CSR, in app or online)		●	
Video chat	●		
Screen sharing / Co-browsing	●		
Voice-enabled assistants		●	

Function	In Production	Supported but Not in Production	Not Supported
AI-powered chat bot/ virtual assistant		●	
Digital appointment scheduling (in-person or virtual)	●		
Card Controls			
Lock cards, including contactless debit card payments	●		
Order a replacement card	●		
Report fraud and dispute transaction	●		
View dispute status	●		
Mobile card reissue	●		
Money Movement and Transactions			
Electronic Billing and Payments Portal (EBPP)	●		
Mobile Prepaid recharge	●		
Out of the box NFC support		●	
Mobile Bill Pay	●		
Mobile Photo Bill Pay (take photo of bill to pay)	●		
Virtual cards			●
Mobile Wire	●		
ACH	●		
SEPA	●		
Mobile A2A (external)	●		
Social P2P payments	●		
Zelle P2P payments			●
Other P2P Payment methods	●		
ID / Authentication and Security			
Fingerprint ID		●	
Voice authentication		●	
PIN	●		
Facial recognition	●		
Risk-based authentication		●	
Alerts			
Upcoming overdraft	●		

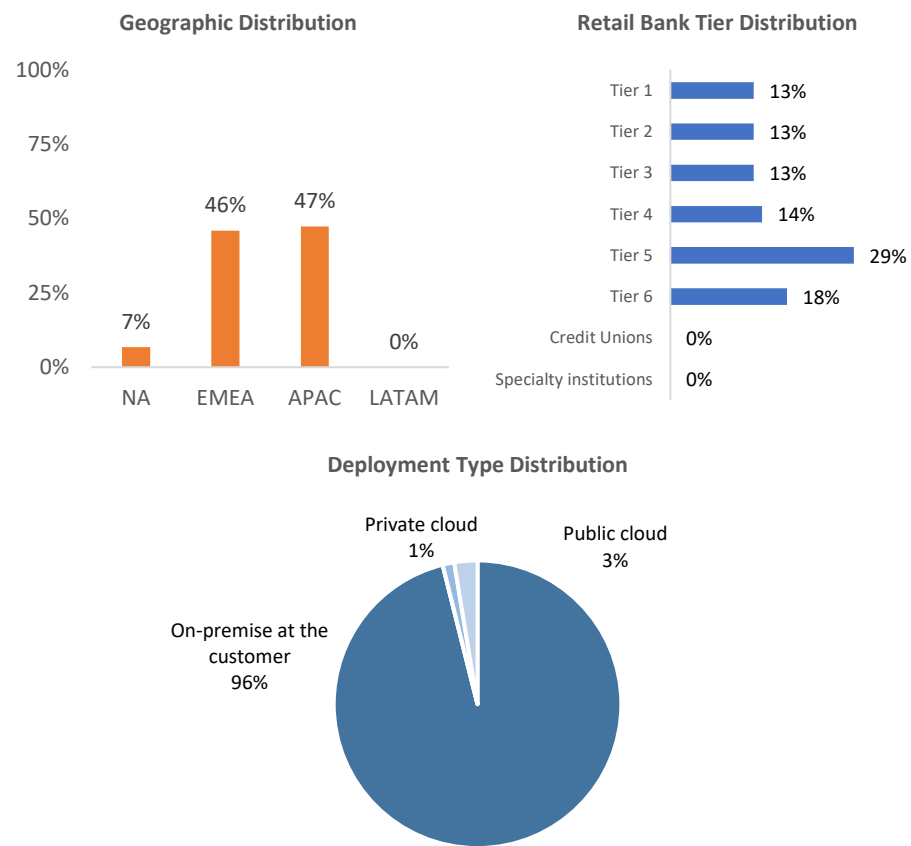
Function	In Production	Supported but Not in Production	Not Supported
Purchases above a threshold	●		
Low balance	●		
International transactions	●		
Card not present transactions	●		
Credit alerts	●		
Fraud alerting	●		
<div> <div>● = Available out of the box</div> <div>● = Configurable using simple tools for business user</div> <div>● = Configurable using simple tools for IT user</div> </div> <div> <div>● = Configurable through a scripting language/coding</div> <div>● = Available with integration to a third-party solution</div> <div>● = Available with integration to a separate module provided by this vendor</div> </div> <div> <div>● = Under development/on roadmap</div> <div>● = Could develop, would be considered customization</div> <div>● = Not available /not applicable</div> </div>			

Source: Vendor RFI

Customer Base

Intellect's Digital Banking Platform has 77 customers using it to support their retail customers. It serves a diversified set of customers across tiers with nearly half being community banks.

Intellect is beginning to deploy via public (3%) and private cloud (1%).

Figure 1: Client Base by Size and Deployment Option

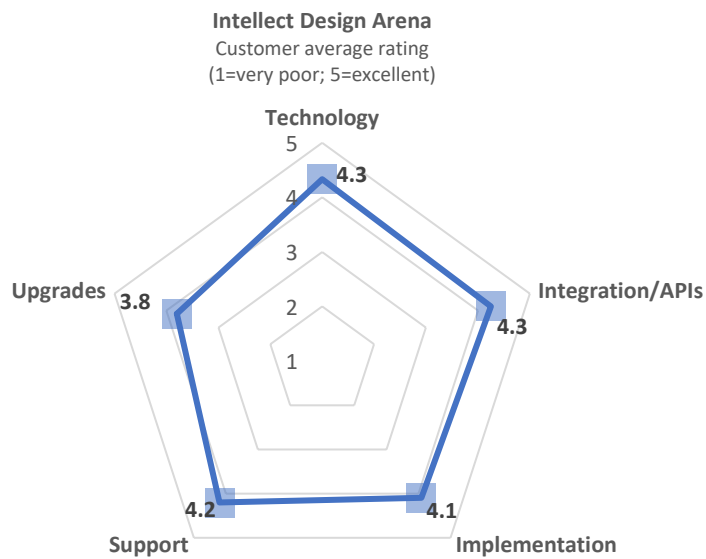
Source: Vendor RFI

Customer Feedback

Intellect receives strong positive customer feedback. It scores very good across all five dimensions, in particular technology and integration.

For technology, customers call out omnichannel capabilities, agility, responsiveness, future-proof and scalability. They point to business results: “a loyal customer base, increased wallet share per customer, and increased profitability across products and customer segments.” They value Intellect’s intuitive Developer Studio (SDK) which enables them to “create unique UI/UX experience and on-board new services and functions across the channels.” In addition, they appreciate its performance monitoring and management tools and proactive fraud monitoring capability.

Specific to ease of integration, they cite integration with both downstream systems and external fintechs, and legacy core banking systems.

Figure 2: Customer Feedback

Source: Celent survey of vendor reference clients

Technology

Table 6: Advanced Technology – SaaS Capabilities

Elements	Availability/Metric
Supports a multi-tenant architecture	✓
Cadence of upgrades for multi-tenant deployments	More than every 12 months
Ability to enable independent services (microservices)	✓
Proportion of the system architected as microservices	Over 80%
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	✓

Legend: ✓ = Yes ✗ = No

Source: Vendor RFI

Table 7: Public Cloud Options

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	<input type="checkbox"/>	<input type="checkbox"/>	✗	✗
Amazon AWS	✗	✓	<input type="checkbox"/>	<input type="checkbox"/>

Providers	NA	EMEA	APAC	LATAM
Google Cloud Platform (GCP)	×	×	×	×
Alibaba Cloud	×	×	×	×
IBM Cloud / Bluemix	×	×	×	×
Oracle Cloud	×	×	×	×
Salesforce Cloud, Force.com, AppExchange	×	×	×	×
Other	×	×	<input type="checkbox"/>	×
<u>Legend:</u> ✓ = In production; <input type="checkbox"/> = Supported but not in production; × = Not supported				
Source: Vendor RFI				

Partnerships

Table 8: Partnerships

Type of Partnership	Partner Vendor
Money Management	Partner name under NDA
Conversational AI	None, proprietary chatbot, voicebot, and snapchat (Facebook, Whatsapp)

Source: Vendor RFI

Pricing

Table 9: Pricing

Pricing Models	Subscription-based license, Term license, Perpetual license, Enterprise license, Another pricing model that is not listed
Factors Used to Determine Pricing	<u>Usage-based factors:</u> None <u>Tier-based factors:</u> None <u>Other factors:</u>

Source: Vendor RFI

During 2023, Intellect plans to expand its functional capabilities, targeting several markets and is upgrading its technical infrastructure to make the CBX-R more customer friendly.

APPENDIX: CELENT'S ABC METHODOLOGY

Approach

To analyze the capabilities of digital banking platforms active, Celent invited 35 vendors to participate in this research, leading to 25 profiled vendors and 23 fully participating in our ABC Vendor View analysis. We then selected appropriate participating vendors for each edition.

There was no cost for vendors to participate, but they had to meet the following criteria:

- An established retail banking client base in at least one geographic region
- Off-the-shelf support for common retail banking use cases and an established (trained) intent library
- Willingness and ability to provide at least three retail banking client references in each region in which they operate

Vendors did not need to exclusively support retail banking clients, although some do. Instead, they must possess the requisite technology and operational experience to offer retail banks a quick time-to-value. Some of the vendors listed in Table 1 partially participated by conducting solution briefings and demos but did not complete the RFI. Some choosing this outcome did not meet our inclusion criteria, while others cited bandwidth constraints causing them to drop out of the RFI. Some eagerly confirmed participation, but later dropped out after realizing the great detail of the RFI.

Celent sent a detailed RFI to the participating vendors, accompanied by a request for a product briefing and solution demonstration. The RFI sought information about key functionality, pre-integrated products, customer base, pricing model, and implementation and support. In some cases, vendors revised their RFI responses following detailed discussions.

Celent used its unique [VendorMatch](#) platform to gather RFI data from each vendor. VendorMatch is the world's largest vendor and solutions data store—combined with analytical tools—to help financial institutions find, evaluate, and select a solution. Each profile contains a link to the solution's VendorMatch profile.

The Retail Digital Banking Platform RFI gathered information across multiple dimensions:

- Company overview
- Company information
- Product overview

- 17 drill-down categories
 - Geographic availability: Regions and countries where vendors market or supply this solution
 - Solution due diligence: Annual revenue, release history, and future road map
 - Detailed functionality: Data input, supported interaction channels, data acquisition and interpretation, NL reasoning, intent creation and recognition, pre-packaged intents, dialog design and workflow, administrative and reporting capabilities
 - Pre-integrated solutions: Vendor-specific products pre-integrated with the solution for each geographic region
 - Staffing, training, and client services: Professional services staff and client support, accreditations and certifications, and user conferences/committees
 - SaaS Capability: Cadence of upgrades, elasticity, API strategy, microservices support, DevOps support, containerization, private, public and multcloud support.
 - Deployment options detail: Deployment option availability, client base by deployment option, and hosting options
 - Integration methods services and APIs: Integration approach and API details
 - Internationalization and localization: Multiple currency support, multiple language support, and local conventions support
 - Application and cybersecurity: Application security support, authentication capabilities, audit trail, workflow, and cybersecurity
 - Commercial terms: Pricing models, pricing factors, third party software fees
 - Service-level agreements: SLA service scope and features, and service and support tracking
 - Customer base: Retail banking customers by asset tier, customers in production with recent version, new clients, and named clients
 - Customer base by country: Total in-production clients and new clients
 - Customer references: Reference contacts by region

As part of the VendorMatch RFI process, Celent gathered much more information about each solution than is reflected in this report. Subscription clients can leverage analyst access to connect with the author and to learn more about the vendors.

Figure 13 illustrates one of the VendorMatch RFI data collection screens, the primary Corporate Digital Banking functionality tab. Each solution type has a unique functionality tab. All others transcend solution types.

Figure 13: Celent VendorMatch RFI Data Collection (anonymized)

The screenshot shows the Celent VendorMatch RFI data collection interface. The top navigation bar includes the Celent logo, links for Research, Consulting, and About us, and user options like Admin, My settings, Sign out, and Contact us. Below this is a secondary navigation bar with various menu items including Console, Users, User Groups, User Activity, Subscriptions, Vendors, Analysts, Products/Services, Events, News Articles, and Insights. The main content area is titled 'TEST' and 'Administration'. A breadcrumb trail shows the path: Console > Vendors > Celent > Products/Services > Test. The primary section is 'CORPORATE DIGITAL BANKING PLATFORM DETAILED FUNCTIONALITY'. It contains two main parts: 'DIGITAL PLATFORM INFORMATION' and 'DIGITAL PLATFORM CHANNELS'. The first part asks questions about target market segments, competitive differentiators, challenges, and platform usage, with text input fields and checkboxes. The second part, 'DIGITAL PLATFORM CHANNELS', includes 'COLUMN 1: CHANNEL PRODUCTION STATUS' and 'COLUMN 2: CHANNEL AVAILABILITY', with a table for 'Available Channels' listing Web/online, Mobile, Tablet, Network connectivity, and API client connectivity. On the right side, a 'SURVEY SECTIONS' sidebar lists various sections with their completion status, all marked as 'INCOMPLETE'. The 'CORPORATE DIGITAL BANKING PLATFORM DETAILED FUNCTIONALITY' section is highlighted in blue.

Source: Celent VendorMatch

As part of the data gathering process, Celent asked about feature availability and implementation status, providing the vendors with the following response options shown in Figure 14.

Figure 14: RFI Functionality Response Options

Implementation Status	Feature Availability
<ul style="list-style-type: none"> At least one client in production (2) Supported but no live clients in production (1) Not supported (0) 	<ul style="list-style-type: none"> Available out of the box (5) Configurable using simple tools targeted for a business user (5) Configurable using tools targeted for an IT user (4) Configurable through a scripting language/coding (3) Available with integration to a third party solution (2) Available with integration to a separate module provided by this vendor (2) Under development / On road map (1) Could develop—would be considered customization (1) Not available / Not applicable (0)

Source: Celent analysis

Note: Weighting given to each response in parenthesis

Customer Reference Feedback

Celent also surveyed client references provided by each vendor to obtain client views of the solution's business and technology value and to assess the vendor's customer service. The survey also asked each client what it liked best about its vendor and asked for suggestions for improvement. Anonymous results of the client surveys are reflected in the profiles.

Customer reference feedback is presented in each Vendor Profile, including a diagram that displays the average ratings given to the vendor in six categories. Each average rating includes up to 35 underlying ratings, as shown in Figure 15, scored by the customer on a scale of 1 to 5, where 1 means poor and 5 is excellent.

It is advisable to keep in mind that the evaluations and comments may vary according to the specific needs of each reference client.

Figure 15: Customer Feedback Ratings

Diagram Average (Questions Asked)	Ratings Included in Scoring*
How would you rate the TECHNOLOGY of this solution in the following areas?	Ease of system maintenance Flexibility of the data model Configurability of the solution Ease of UI design across devices Overall satisfaction with the technology

What has been your experience INTEGRATING this platform with the following?	Overall integration Core Banking platform External data sources Internal data sources Third party products Payment systems
Thinking back to when you first IMPLEMENTED this platform, how would you rate this vendor in the following areas?	Project management Implementation completed on time Implemented completed on budget Knowledge of your business Knowledge of their solution and relevant technology Continuity with the implementation team Overall project success
How would you rate this vendor's ongoing POST-IMPLEMENTATION support for the following?	Responsiveness Communication Staff turnover Consistently meeting SLAs Roadmap delivery Customer feature requests heard and responded to Overall quality of professional services
How would you rate the COST of the vendor's solution?	Implementation costs Costs to integrate third party systems Overall costs (includes all costs associated with maintenance, licenses, integrations, etc.)
How would you rate UPGRADES of this system?	Ease of the overall upgrade Speed of the upgrade Cost of the upgrade Other (please specify)
Additional questions	What has been your EXPERIENCE in MAKING SIGNIFICANT CHANGES to the PLATFORM? This could include adding a new product, changing processes, etc. What are the ADVANTAGES to using this platform? What would you CHANGE about this platform? Vendor? What OVERALL GRADE would you give this platform on a rating scale from 0 to 10, 0 being extremely poor, 10 being exemplary?

*Scale 1 to 5, where 1 is poor and 5 is excellent. "No Opinion" not included in average.

Source: Celent

Limitations

Celent believes that this study provides valuable insights into current offerings in retail digital banking platforms. However, readers are encouraged to consider these results in the following context. Although we viewed a system demonstration, we could not confirm all the solution details and client base information self-reported by

participants. The initial data collection commenced in mid-2022, and the vendors have had the opportunity to update their profile information since that initial outreach.

Additionally:

- Celent's ABC methodology uses a normalized scale. In some cases, this can exaggerate quantitative differences, but its purpose is to make the graph easier to read.
- A vendor's suitability comes down to the needs of the institution compared to the insight offered by this analysis.
- The mix of vendors and platforms includes Celent subscribers and nonsubscribers. We make no distinction between how either is presented, nor does it affect our ratings.

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If you found this report valuable, you might consider engaging with Celent for custom analysis and research. Our collective experience and the knowledge we gained while working on this report can help you streamline the creation, refinement, or execution of your strategies.

Support for Financial Institutions

Typical projects we support include:

Vendor short listing and selection. We perform discovery specific to you and your business to better understand your unique needs. We then create and administer a custom RFI to selected vendors to assist you in making rapid and accurate vendor choices.

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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For more information please contact info@celent.com or:

Bob Meara bmeara@celent.com

Americas

USA

99 High Street, 32nd Floor
Boston, MA 02110-2320

[+1.617.262.3120](tel:+16172623120)

USA

1166 Avenue of the Americas
New York, NY 10036

[+1.212.345.3960](tel:+12123453960)

USA

Four Embarcadero Center
Suite 1100
San Francisco, CA 94111

[+1.415.743.7960](tel:+14157437960)

Brazil

Av. Dr. Chucri Zaidan, 920
Market Place Tower I - 4° Andar
Sao Paulo SP 04583-905

[+55 11 5501 1100](tel:+551155011100)

EMEA

Switzerland

Tessinerplatz 5
Zurich 8027

[+41.44.5533.333](tel:+41445533333)

France

1 Rue Euler
Paris 75008

[+33 1 45 02 30 00](tel:+33145023000)

Italy

Galleria San Babila 4B
Milan 20122

[+39.02.305.771](tel:+3902305771)

United Kingdom

55 Baker Street
London W1U 8EW

[+44.20.7333.8333](tel:+442073338333)

Asia-Pacific

Japan

The Imperial Hotel Tower, 13th Floor
1-1-1 Uchisaiwai-cho
Chiyoda-ku, Tokyo 100-0011

[+81.3.3500.3023](tel:+81335003023)

Hong Kong

Unit 04, 9th Floor
Central Plaza
18 Harbour Road
Wanchai

[+852 2301 7500](tel:+85223017500)

Singapore

138 Market Street
#07-01 CapitaGreen
Singapore 048946

[+65 6510 9700](tel:+6565109700)