

# 2018 CIO Agenda: Banking and Investment Services Industry Insights

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Banks and other investment services CIOs are increasingly convinced that their old business models and existing value propositions will not be sustainable in the future. The struggle to transform their organizations can be seen in the priorities they assign and the spending choices they make.

## Key Findings

- Digital transformation and digitalization/digital marketing (and technologies related to them such as APIs and multichannel) are more important for banking than for other industries. Banks and other banking and investment services organizations clearly recognize that the status quo is not sustainable, and they must "disrupt themselves before it is done to them."
- Although banks have a very cautious approach to the use of cloud, it is gaining credibility and maturity, and so it is gradually replacing the infrastructure and software that was traditionally sourced and hosted "in-house."
- Legacy modernization is more prominent for banking than for other industries. In order to survive and thrive, banks are being forced to find more modern, flexible platforms that can support new business models and different value propositions.

## Recommendations

CIOs designing operations and architectures for the digital bank should:

- Create a more open bank by fully understanding the four paths to creating a digital platform: building, acquiring, partnering and consuming.
- Avoid a "one size fits all" mentality when assessing cloud suitability by distinguishing between the different cloud models (private, hybrid and public) and cloud service types (SaaS, IaaS and PaaS).
- Evaluate replacement core banking products by assessing them on their componentization models, use of innovation and alignment with the open banking paradigm.

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## Survey Objective

The purpose of the 2018 Gartner CIO Agenda is to help CIOs and other IT leaders set and validate their management agendas for the coming year. To achieve this, the CIO survey gathered data from 3,160 CIO respondents in 98 countries and across major industries, representing \$13.0 trillion in revenue and public-sector budgets and \$277 billion in IT spending. Respondents came from a range of industries, including manufacturing, government, professional services, banking, energy/utilities, education, insurance, retail, healthcare, transportation, communications and media.

This report focuses on the answers from 354 respondents in the banking and investment services industry and compares them with the total sample.

This report focuses on the following key questions:

1. What is the top strategic business priority for the organization over the next two years?
2. Which technology area will help the business to differentiate from rivals and win?
3. Which technology area will receive the highest amount of new or additional funding in 2018?
4. Which technology area will see the biggest reductions in funding in 2018 versus 2017?

Together, the answers to these questions offer some revealing insights into how banking and investment services firms are planning to transform themselves and transform both their businesses and the IT that supports those businesses. This data, together with Gartner's interaction with clients and coverage of the industries, is the basis for the analysis and recommendations within this document. This research is linked to the Key Initiative of how to execute a digital strategy in banking and investment services (see "Delivering the Digital Banking Experience Primer for 2017").

The full survey, covering more than 50 questions, was designed to prove or disprove a series of hypotheses devised by a core team of Gartner research analysts and Executive Programs representatives. The key findings from the total dataset are published in their entirety as "The 2018 CIO Agenda: Mastering the New Job of the CIO."

## Data Insights

Most of the priorities revealed in the answers to this survey are shared more or less equally across all industries. There are certain trends and directions such as additional funding for (BI)/analytics ranking high that all industries are largely following as they seek to remain relevant in a digital world. But most pertinent insights are around where the banking and investment services industry has a significantly different approach than other industries. These differences are examined below.

### Top Business Priorities

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Question: "Thinking about your organization as a whole, what would you say is the top business/mission objective for the next two years (2017/2018)?" (See Figure 1.)

Figure 1. Strategic Business Priorities

Rank	Banking and Investment Services (n = 284)	Percentage of Respondents	Rank	Total Sample (n = 2,615)	Percentage of Respondents
1	Digital business/digital transformation	26%	1	Growth/market share	26%
2	Growth/market share	25%	2	Digital business/digital transformation	17%
3	Profit improvement/profitability/asset monetization	12%	3	Profit improvement/profitability/asset monetization	10%
4	Customer focus	11%	4	Innovation, R&D, new products/services	10%
5	Innovation, R&D, new products/services	8%	5	Customer focus	9%
6	Globalizing the business/geographic expansion	7%	6	Corporate/M&A/new business/consolidation	7%
7	Technology initiatives/improvements	7%	7	Technology initiatives/improvements	7%
8	Productivity/optimization/efficiency	6%	8	Cost optimization/management/reduction	6%
9	Corporate/M&A/new business/consolidation	6%	9	New customers/retention/sales	6%
10	Cost optimization/management/reduction	5%	10	Operations improvement/efficiency/excellence	6%

Base: All answering, excludes DK; n varies by segment.

Q. Thinking about your organization as a whole, what would you say are its top business objectives for the next two years (2017/2018)?

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Source: Gartner (October 2017)

## Analysis of Data

Regarding the strategic business priorities in Figure 1, what stands out here is that digital business/digital transformation is much more important for banking (26%) than for all industries (17%). Banks and other investment services organizations clearly recognize that the status quo is not sustainable, and they must "disrupt themselves before it is done to them." As an inherently digital industry with no tangible assets it can fall back on (unlike, say, a manufacturing or retailing firm, which may, perhaps, rely on its attractive consumer goods), banking must prioritize this kind of business change. As banks design new business models and different value propositions, they will need a new kind of digital platform to support these changes.

The other item that jumps out from Figure 1 is the high priority given by banking to globalization of its business (7%), which does not make the top 10 at all for the all-industries average. Geographic expansion is clearly important for a business that is (1) easier to scale over physical distances using electronic movements of money, and (2) seeking higher growth in emerging markets. However, this strategy poses challenges due to local regulations and requirements.

## Recommendation

- Create a more open bank by fully understanding the four paths to creating a digital platform: building, acquiring, partnering and consuming (see "How to Build an Open Bank").

## Top Tech to Win

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Question: "Which technology areas do you think are most important to helping your organization differentiate and win (achieve your mission)?" (See Figure 2.)

Figure 2. Top Technology to Win

Rank	Banking and Investment Services (n = 315)	Percentage of Respondents	Rank	Total Sample (n = 2,834)	Percentage of Respondents
1	BI/analytics	26%	1	BI/analytics	26%
2	Digitalization/digital marketing	21%	2	Digitalization/digital marketing	14%
3	Mobility/mobile applications	11%	3	Cloud services/solutions	10%
4	Artificial intelligence	8%	4	Mobility/mobile applications	6%
5	Cloud services/solutions	8%	5	Internet of Things	6%
6	Legacy modernization	4%	6	Customer relationship management	5%
7	Application programming interface	4%	7	Artificial intelligence	5%
8	Customer relationship management	4%	8	Enterprise resource planning	5%
9	Automation	3%	9	Infrastructure/data center	5%
10	Omnichannel/multichannel	3%	10	Automation	4%

Base: All answering, excludes DK; n varies by segment.

Q. Which technology area do you think is most important to helping your business differentiate and win/is most crucial to achieving your organization's mission?

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Source: Gartner (October 2017)

## Analysis of Data

In terms of differentiating technology areas, four categories stand out from Figure 2:

1. Artificial intelligence (AI) is seen as more differentiating (8%) for banking than the all-industries average (5%).
2. The combination of application programming interfaces (APIs) at 4% and omnichannel/multichannel at 3% are not especially high, but they are not present at all in the all-industries top 10.
3. Legacy modernization (which will include core banking systems in this context) is a top 10 item for the banking industry, but is not present in the all-industries list.
4. The Internet of Things (IoT) is a top-10 item for all industries (6%), but is not present for banking and investment services.

All of the above point to a continuing tension between two opposing forces. On the one hand, there is a need to rapidly transform the business, while, on the other hand, there is the innate inertia that arises from a huge IT estate that supports a heavily regulated industry. The former wants to move fast; the latter is risk-averse and cautious. The focus on AI, APIs and multichannel represents the effort to make the transition to digital banking (with new ways of creating and sharing value) happen faster. The corresponding focus on legacy modernization both augments that move and recognizes that it is especially hard to attempt any "rip and replace" of old systems in an industry that cannot miss a beat and must remain available and secure 24/7.

The IoT is a bit of an outlier here, since it is prominent in other industries but not in banking and investment services. The fact is that banks have few opportunities to use IoT devices directly. They can be installed in smart ATMs or in branches, but they will have only a small and peripheral impact in those situations. Where the IoT will have a big impact on banking is through *indirect* interactions, i.e., via IoT devices that are present in, and owned by, *other* industries. The IoT that is present in, for example, insurance (connected cars and smart homes), or government (smart cities), or manufacturing (smart supply chains), or healthcare (wearable IT) is where opportunities will arise for banking. But they will be brief opportunities — to transact payments, or offer loans or mitigate risk — that banks must proactively go out and look for. The days when consumers came to banks and asked for services are fading — those consumers will now expect banks to be aware of their situation and to come to them with personalized offers, at appropriate times, when needed.

Note that blockchain does not feature here (it ranked twentieth for banking and investment services). Despite all the attention and visibility, it is not yet seen as a differentiating technology for banks. That may change in the near future.

## Recommendation

- Start an API program and get on the API economy, not by starting from the APIs themselves, but by starting from the perceived value of the applications that consume them and then by monetizing them (see "Top 10 Things CIOs Need to Know About APIs and the API Economy").

## Top Tech Areas for New Spending

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Question: "What is the technology area where your organization as a whole will be spending the highest amount of new or additional funding in 2018?" (See Figure 3.)

Figure 3. Top Technology Areas for New Spending

Rank	Banking and Investment Services (n = 305)	Percentage of Respondents	Rank	Total Sample (n = 2,847)	Percentage of Respondents
1	Digitalization/digital marketing	22%	1	BI/analytics	19%
2	BI/analytics	18%	2	Cloud services/solution	13%
3	Cyber/information security	13%	3	Digitalization/digital marketing	12%
4	Cloud services/solution	13%	4	Cyber/information security	12%
5	Data management	10%	5	Enterprise resource planning	10%
6	Mobility/mobile applications	9%	6	Infrastructure/data center	8%
7	Networking, voice/data communications	7%	7	Customer relationship management	6%
8	Infrastructure/data center	7%	8	Mobility/mobile applications	6%
9	Artificial intelligence/machine learning	7%	9	Networking, voice/data communications	5%
10	System/process automation	7%	10	Artificial intelligence/machine learning	4%

Base: All answering, excludes DK; n varies by segment.

Q. What are the technology areas where your organization will be spending the highest amount of new or additional funding in 2018?

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Source: Gartner (October 2017)

## Analysis of Data

Items that stand out from Figure 3 in terms of increased technology spending are:

1. Digitalization/digital marketing, which is much more prominent in banking and investment services (22%) than in the all-industries average (12%). As indicated by digitalization in Figure 1 for, this is an industry that recognizes that a firm must become truly digital — in culture, value and technology — if it is to stand a chance of surviving and thriving.
2. Data management (10%) is a strong focus for banking but is not present at all for all industries. Data is the key asset for banks — they have no other tangible assets — and is the key differentiator in many cases. Banks that manage their data excellently will have a better understanding of their customers, their risks, their threats and their opportunities than those that don't (see "The State of Data Quality: Current Practices and Evolving Trends").
3. Cloud is lower in the ranking for banking (fourth versus second for all industries) but has the same percentage assigned to it (13%). Banks would like to make more use of cloud as they seek to roll out software more quickly, modernize in-house infrastructure, optimize costs and achieve greater consistency and compliance. So, they have grand ambitions for cloud. But they are always going to be held back by their risk-averse culture and their regulators. This has become somewhat more lenient over the years as maturity has increased and the perceived risk has decreased. But public cloud for banks is always going to remain problematical.
4. For AI, there is only a small difference in absolute terms between banking and all industries, but it is a large one in relative terms (7% versus 4% — so nearly double). Being able to turn raw data into actionable information by spotting unexpected patterns or developing superior algorithms will strongly differentiate banks that do this well from their more mediocre rivals.
5. Enterprise resource planning (ERP) and customer relationship management (CRM) are both prominent in the top 10 for all industries but not present at all in the top 10 for banks and investment services. ERP is simply not a core process for banks. CRM is often strongly associated with sales enablement and is being subverted by personalized banking and investment management that is underpinned by other technologies such as BI, analytics, multichannel and AI.

## Recommendation

- Avoid a "one size fits all" mentality when assessing cloud suitability by distinguishing between the different cloud models — private, hybrid and public — and cloud service types — SaaS, IaaS and PaaS (see "Cloud Heat Map for Banking, 2017").

## Top Tech Areas to Decrease Spending

Question: "Please indicate the top technology area where your organization as a whole will be cutting the highest amount of funding in 2018 compared with 2017." (See Figure 4.)

Figure 4. Top Technology Areas to Decrease Spending

Rank	Banking and Investment Services (n = 250)	Percentage of Respondents	Rank	Total Sample (n = 2,362)	Percentage of Respondents
1	Infrastructure/data center	29%	1	Infrastructure/data center	30%
2	None	16%	2	None	13%
3	Legacy systems	8%	3	Legacy systems	8%
4	Optimizing operations — BSS/OSS	6%	4	Enterprise resource planning	8%
5	Software licensing/maintenance/support	5%	5	Optimizing operations — BSS/OSS	4%
6	Storage services	4%	6	Hosting services/server	4%
7	Communication/connectivity	4%	7	Software licensing/maintenance/support	3%
8	Hosting services/server	3%	8	Communication/connectivity	3%
9	Enterprise resource planning	3%	9	Software development/upgrades	3%
10	Software development/upgrades	2%	10	People/talent management	2%

Base: All answering, excludes DK; n varies by segment.

Q. What are the technology areas where your organization will be reducing funding by the highest amount in 2018 compared to 2017?

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Source: Gartner (October 2017)

## Analysis of Data

What stands out most strongly in Figure 4 is the correlation in both rank (first) and percentage of respondents (29% banking and investment services, 30% all industries) for targeting infrastructure/data center as an area to reduce funding. All firms are now recognizing that their prime competency does not lie in maintaining vast, complex and expensive IT real estate. As cloud alternatives mature, the option to divest fixed-cost assets and move to pay-as-you-consume models is becoming more attractive. Many banks now have a "look at cloud first" policy when it comes to replacing outdated and expensive software and hardware. Banks also have a particular focus on replacing inflexible mainframes with server alternatives now that the latter are capable of handling the large volumes and high throughput rates needed in banking and investment services. Even core banking systems can now be replaced with cloud-based options. Not many banks will go down this route yet, but they are certainly keeping it as an option for the future. Right now, if they are replacing core systems, they are more focused on aspects such as the architecture, componentization, microservices and API capabilities.

## Recommendation

- Evaluate replacement core banking products by assessing them on their componentization models, use of innovation and alignment with the open banking paradigm (see "Magic Quadrant for Global Retail Core Banking").

## Methodology

The 2018 Gartner CIO Survey was conducted via an online survey from 20 April to 26 June 2017 among Gartner Executive Programs members and other CIOs. Qualified respondents were the most senior IT leader (CIO) for their overall organization or a part of their organization (e.g., a business unit or region). The total sample is 3,160, with representation from all geographies and industry sectors (public and private).

The survey was developed collaboratively by a team of Gartner analysts and was reviewed, tested and administered by Gartner's Research Data and Analytics team.

## Gartner Recommended Reading

*Some documents may not be available as part of your current Gartner subscription.*

"How to Build an Open Bank"

"Top 10 Things CIOs Need to Know About APIs and the API Economy"

"Cloud Heat Map for Banking, 2017"

"Magic Quadrant for Global Retail Core Banking"

"Analytics in Asset Management: How CIOs Can Figure Out What Their Firms Actually Need"

"Hints and Tips on Using Gartner Numbers When Reviewing IT Spending Plans"

### Evidence

This report is based on Gartner's annual survey of CIOs (see Survey Objective and Methodology sections for details), which was conducted between 20 April and 26 June 2017. A total of 3,160 respondents participated, including 354 banking and investment services CIOs. The respondents were members of Gartner Executive Programs and other IT leaders.

### More on This Topic

This is part of an in-depth collection of research. See the collection:

- 2018 CIO Agenda: Industry Insights Overview

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