

# LOAN COLLECTIONS SYSTEMS

## Technology Analysis Abstract\*

March 2016  
CEB Retail Banking

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# TECHNOLOGY ANALYSIS OVERVIEW

**Loan collections systems** track, execute, store, and analyze information when collecting delinquent loan payments from consumers and help retail banks manage third-party and customer-facing portals that operate with collections functionality.



## Our Technology Analysis Product

In response to feedback from our membership, we developed this technology analysis product to identify key components of a loan collections investment decision and effectively compare vendor technology products. The basis of our process comes from the knowledge that investment decisions revolve around the benefit to the end user and impact on enterprise objectives rather than the feature set alone.



## Methodology

This technology analysis is tailored to reflect the needs of the end user, in this case the retail banking executive, to diagnose the technology attributes particular to a firm, and to effectively identify loan collections systems that align with the firm's needs. To that end, we conducted a series of interviews and surveys with financial services executives, industry experts, and vendors regarding loan collections technology. The results of this research formed the basis of our technology analysis diagnostic anatomy and informed the five-point rating system on which we scored individual products.



## Technology Guidance

By combining our qualitative and quantitative data from interviews with industry experts, financial institutions, and technology providers, we identified 22 attributes that define a “best-in-class” system. These attributes are grouped into four categories that highlight a firm's user and enterprise needs. Technology provider rankings are based on our five-point rating scores on each of the 22 “best-in-class” attributes. The top technology providers were designated as best-in-class performers based on their composite scores in each of the technology categories featured on the following page.

# EXECUTIVE SUMMARY

## Inclusion Criteria

In this technology analysis, we reviewed products from technology providers that featured a standalone core collections system. Additionally, we required the system to collect on two or more loan product types and be offered and supported in two or more countries globally, crediting technology providers with greater regional coverage and depth. Lastly, we required that the vendor primarily serve financial institutions.

## “Best-in-Class” Technology Providers by Category

Technology providers listed in alphabetical order:

**Core Collections:** Includes tools and features that support the primary loan lifecycle functions for troubled customers.

Leaders include Exus Financial Suite and 3 other products.

**Customer Management:** Includes attributes that differentiate customers and provide recommendations for remediation.

Leaders include Exus Financial Suite and 2 other products.

**Enterprise Technology:** Includes systems and functions that integrate with and supplement the core collections technology.

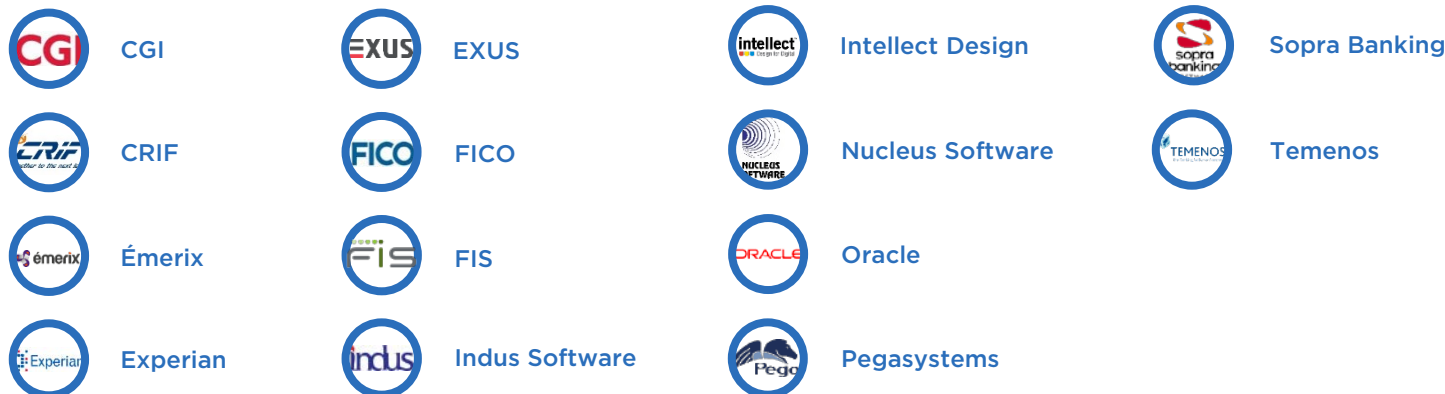
Leaders include Exus Financial Suite and 2 other products.

**Enterprise Support:** Includes attributes that describe the enterprise’s strategy and fit in the financial technology market.

Leaders include 4 products.

## Full Vendor Landscape

This technology analysis profiles and quantitatively evaluates loan collections technology from the following technology providers, listed alphabetically:



# EXECUTIVE SUMMARY

## Current Market and Future Investment

Our research shows the global loan collections technology market is reflecting the following trends:

**Fluctuating lending volumes, changing credit risk dynamics, and high average system age are increasing demand for retail loan collections systems.**

On a global basis, loan volume and risk are increasing as either consumer borrowing increases as a result of a strengthening economy post-crisis (e.g., in the United States), or as mortgage loan risk increases as a result of distressed customers (e.g., in Europe). While differing economies and regions follow varying demand cycles for the technology, on average, our research shows that lending technologies, such as origination, servicing, and collections, are replaced less frequently than some of the newer digital banking technologies, and are therefore ready for an improvement, particularly given the recent evolution of technology within the bank and the major developments in digital banking services over the past few years.

Facing fewer interactions with customers as a result of regulations limiting customer outreach, banks are tasked with increasing the efficacy of their customer interactions. Across retail banking, we see the theme of customer experience increasing in importance; however, many banks are focusing customer service improvements on new sales efforts, rather than helping their most troubled customers. In reality, customers may need the highest quality interactions when banks are attempting to collect on debts already owed to them. This realization will help retail banks more successfully preserve profits.

**Increasing regulations not only apply pressure to compliance teams, but also challenge collections managers with having more productive customer interactions.**

**Digital technologies have both simple and complex applications that can improve delinquent customer behavior and outcomes.**

Typically, we see digital innovations as either having the simple effect of replacing a people- or paper-driven process, or the more complex and nuanced effect of improving the likelihood of a customer having a good experience with their bank. When it comes to loan collections, digital adds the “simple” benefit of offering a way for customers to digitally self-manage their financial lives in a way they could not before, while at the same time improving the way the customer views and thinks about an issue as sensitive and private as paying off debt.

Technologies in this arena include self-service portals for customers to view payments, make payments, or even manage sensitive issues such as providing their bank with reasons why they cannot pay. Many retail banks are beginning to allow customers to restructure their payment plans digitally, abstaining from human interactions if they prefer, and avoiding the embarrassment of a loan collector calling. Additionally, other emerging technologies include proactive outreach analytics in early stages of the collections process, which could help prevent loan default and future late payments for that loan, as well as prevent the domino effect of the customer's other products with the bank souring. Analytics and a 360-degree view of the customer not only help in cross-selling, but also help in holistic loss prevention and the continuation of the customer relationship.

**As a result of the shift toward digital, many loan collections technologies are focused on aiding the bank in improving the customer experience in a way that preserves profits for the bank.**

# KEY COMPONENTS OF OUR TECHNOLOGY ANALYSIS

## Outline of Technology Analysis Components

Our technology analysis process provides a customer-driven, transparent, and unbiased review designed to drive informed business decisions.

1

### Market Trends

- **Current Drivers:** Assess changes in the industry and customer behavior.

2

### Investment Forecast

- **Spending Forecast:** Benchmark global and regional loan collection system banking technology spending.
- **Emerging Technology Landscape:** Pinpoint emerging technologies and innovations.

3

### Scoring Framework

- **Diagnostic Anatomy:** Determine investment priorities with our diagnostic framework.
- **Technology Scorecards:** Rate your current technology with our evaluation toolset.

4

### Vendor Landscape

- **Feature Audit:** Compare the relative feature offerings by technology providers.
- **Vendor Profiles:** Understand the key differentiators between products.

5

### Product Rankings

- **Product Scores:** Review the scores for each product and vendor.
- **“Best-in-Class” Rankings:** See the top products based on our anatomy categories.



## **MARKET TRENDS**

INVESTMENT FORECAST

SCORING FRAMEWORK

VENDOR LANDSCAPE

PRODUCT RANKINGS

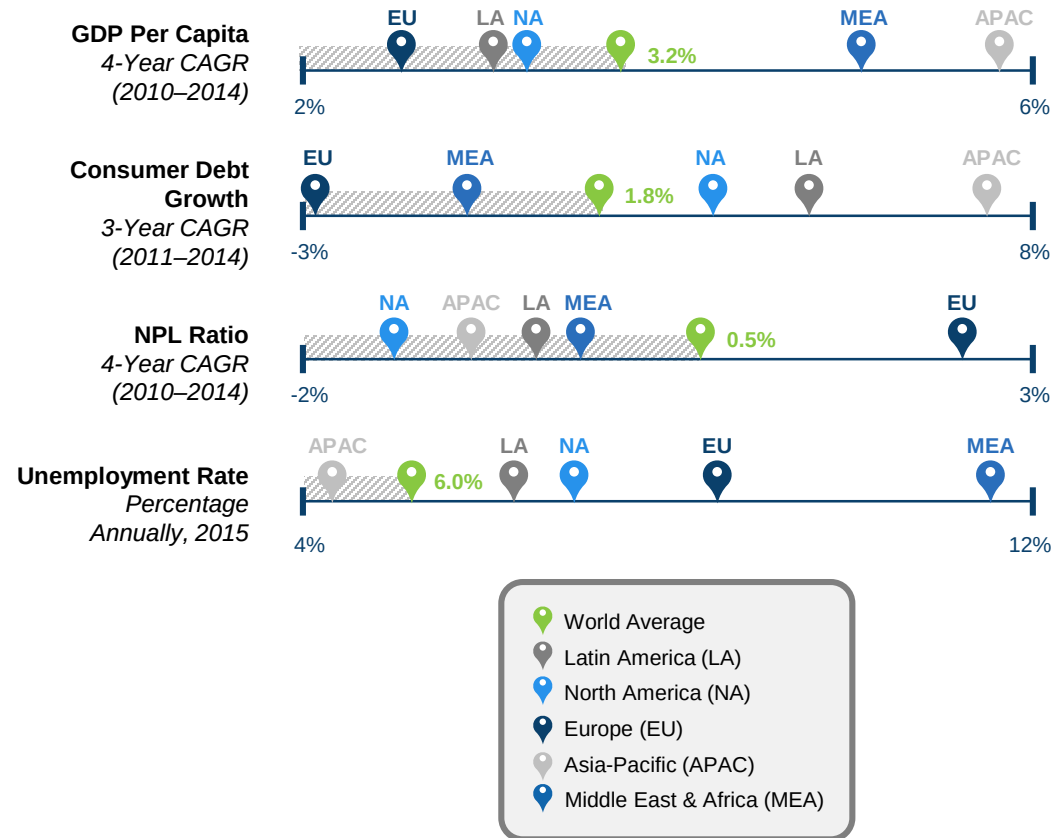
We identified several key global economic indicators that are impacting consumer lending markets and loan collections.

- The European Union stands alone with the lowest economic and loan growth, and high non-performing loan rates.
- The Asia-Pacific region has had the fastest growth in consumer debt, which is connected to rising delinquency rates as loans mature.
- North America has the steadiest metrics: the lowest non-performing loan ratio, moderate growth, and low unemployment.

## SUMMARY OF KEY GLOBAL TRENDS

### Key Global Economic Indicators

Summary of Trends, 2010–2015



Source: The World Bank, *World Development Indicators*,

<<http://databank.worldbank.org/data/reports.aspx?source=2&type=metadata&series=NY.GDP.PCAP.CD#>>; CEB analysis.

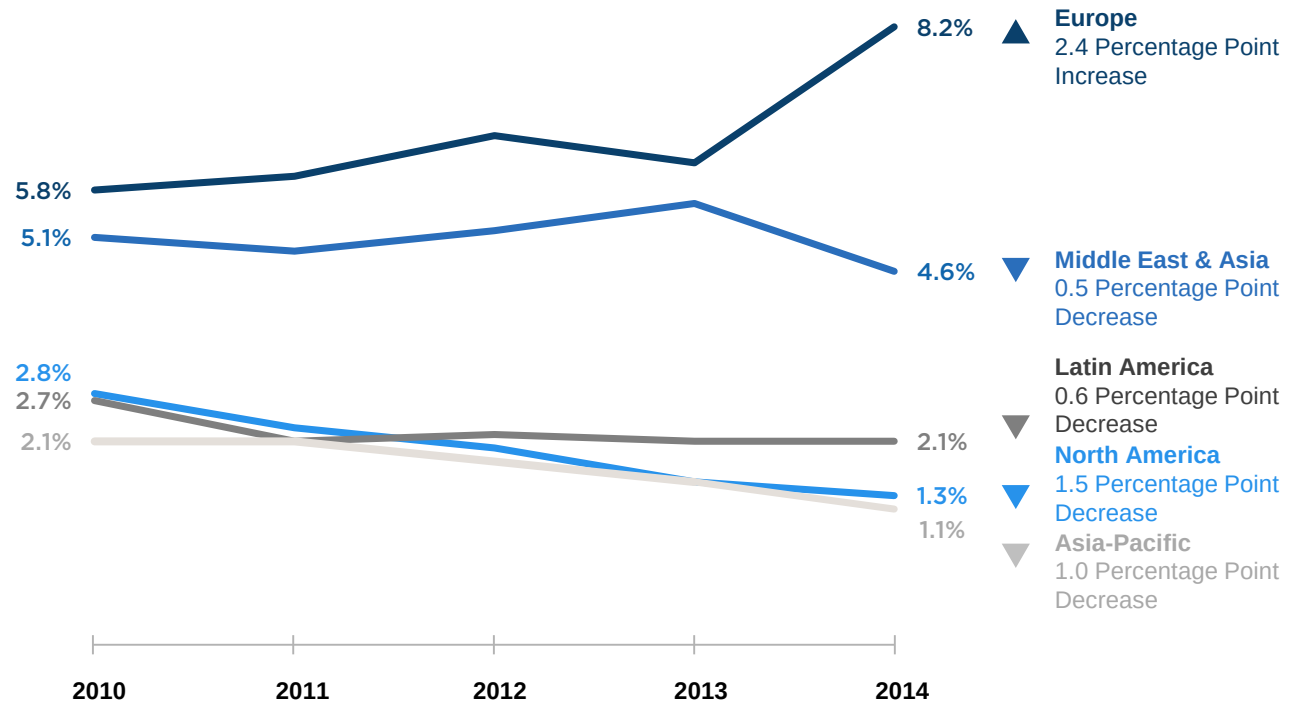
With the exception of Europe, global non-performing loan portfolios have started to decrease as the previous financial crisis settles.

- These regional non-performing loan rates are positively correlated with GDP per capita growth.

## TACKLING BETTER LENDING PERFORMANCE OVERALL

### Global Non-Performing Loans

Percentage of Non-Performing Loans for Aggregated Regions, 2010–2014



The non-performing loan (NPL) ratio is defined as the value of non-performing loans divided by the total value of the loan portfolio. The loan amount recorded as non-performing is the gross value of the loan as recorded on the balance sheet.

Source: The World Bank, *World Development Indicators*,  
<http://databank.worldbank.org/data/reports.aspx?source=2&type=metadata&series=NY.GDP.PCAP.CD#>>.

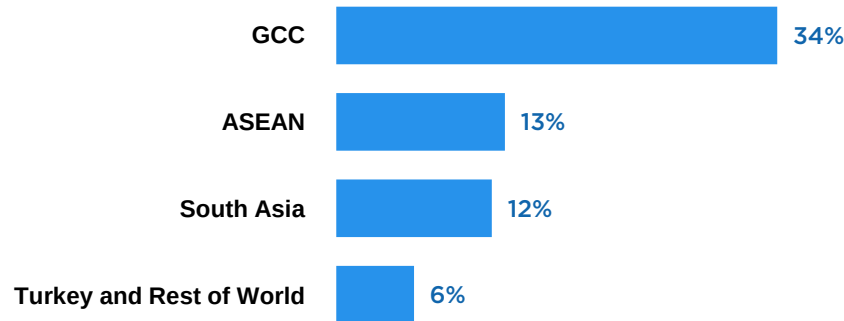
The lending landscape is continuing to evolve, and complexity in lending is growing as a result of global diversity in lending practices.

- As the share of total banking assets in growing areas of the Middle East and Asia-Pacific is increasing, financial institutions need new technology to originate a wider variety of loan types and collect from borrowers that default.
- Islamic banking is strong not only in the Middle East, but also in the Asia-Pacific region, which has large Muslim populations.
- Demand for Islamic banking products is small in Europe and North America, but is growing.

## GROWING COMPLEXITY IN LENDING PRACTICES

### Islamic Banking Assets

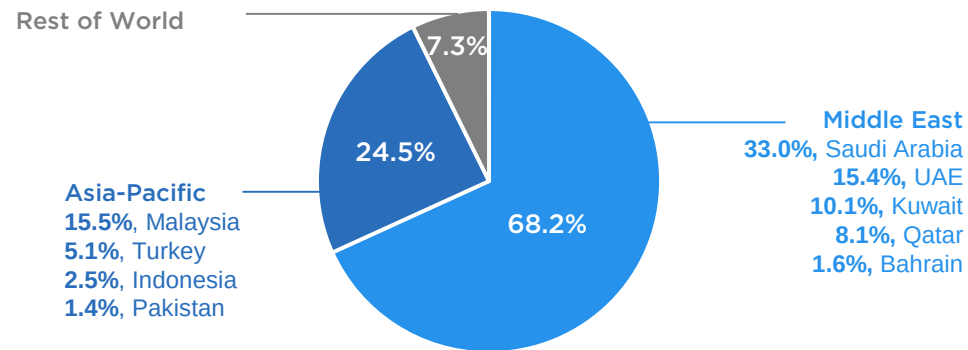
Percentage of Total Banking Assets, 2015



Source: Ernst & Young, World Islamic Banking Competitiveness Report, 2016 <[http://www.ey.com/Publication/vwLUAssets/ey-world-islamic-banking-competitiveness-report-2016/\\$FILE/ey-world-islamic-banking-competitiveness-report-2016.pdf](http://www.ey.com/Publication/vwLUAssets/ey-world-islamic-banking-competitiveness-report-2016/$FILE/ey-world-islamic-banking-competitiveness-report-2016.pdf)>.

### Islamic Banking Assets in Key Countries

Percentage of World Islamic Banking Assets, 2015



Source: Ernst & Young, World Islamic Banking Competitiveness Report, 2016 <[http://www.ey.com/Publication/vwLUAssets/ey-world-islamic-banking-competitiveness-report-2016/\\$FILE/ey-world-islamic-banking-competitiveness-report-2016.pdf](http://www.ey.com/Publication/vwLUAssets/ey-world-islamic-banking-competitiveness-report-2016/$FILE/ey-world-islamic-banking-competitiveness-report-2016.pdf)>.

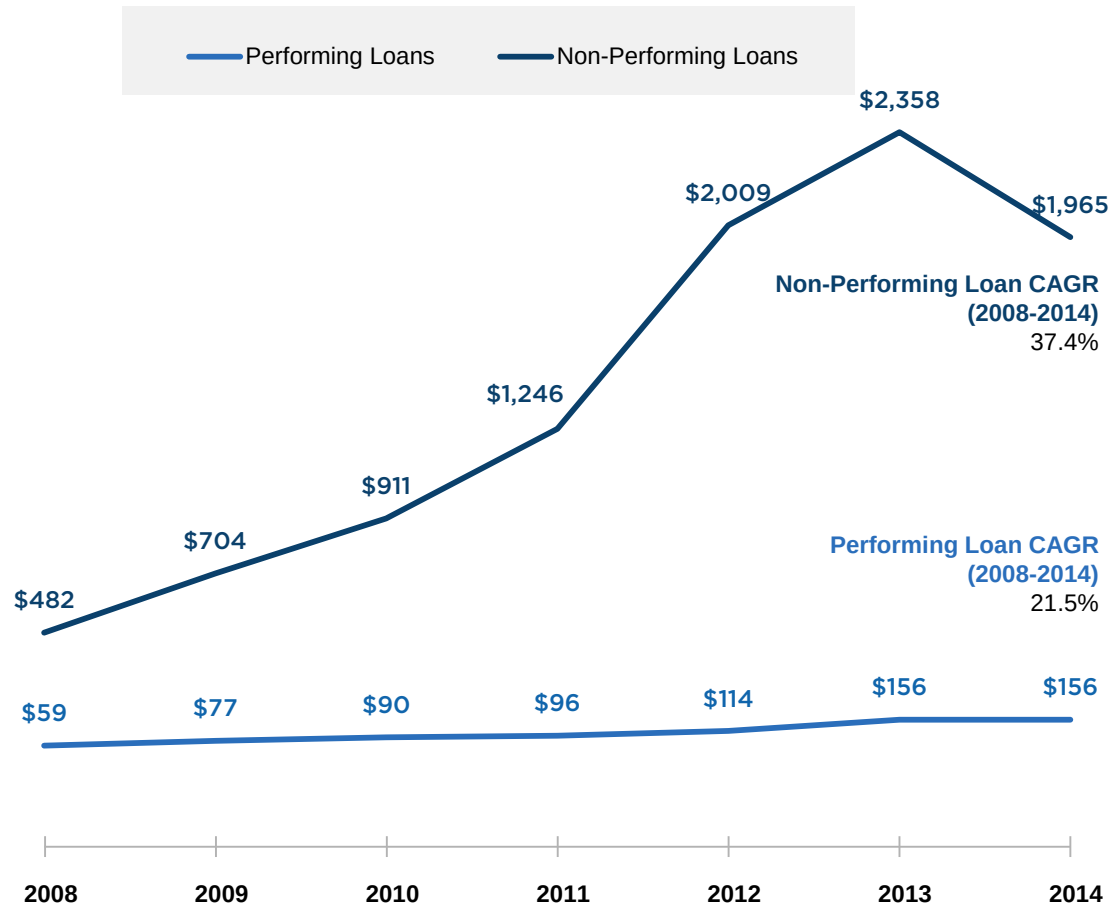
Additionally, loan collections costs have been the fastest-growing cost segment in loan servicing.

- A fourfold increase in loan delinquency rates (from 3% to 12%) from 2007 to 2010 drove the increase in servicing cost per loan.
- The cost to service a delinquent loan was eight times the cost of servicing a performing loan in 2008; by 2013 this multiple rose to 15.
- As delinquencies decline, loan servicers are reducing collections staff and office expenses, but large inefficiencies remain.

## COLLECTIONS COSTS SPIRALING OUT OF CONTROL

### Direct Mortgage Servicing Costs Per Loan

In USD, United States, 2008–2014



Source: Mortgage Bankers Association; CEB analysis.

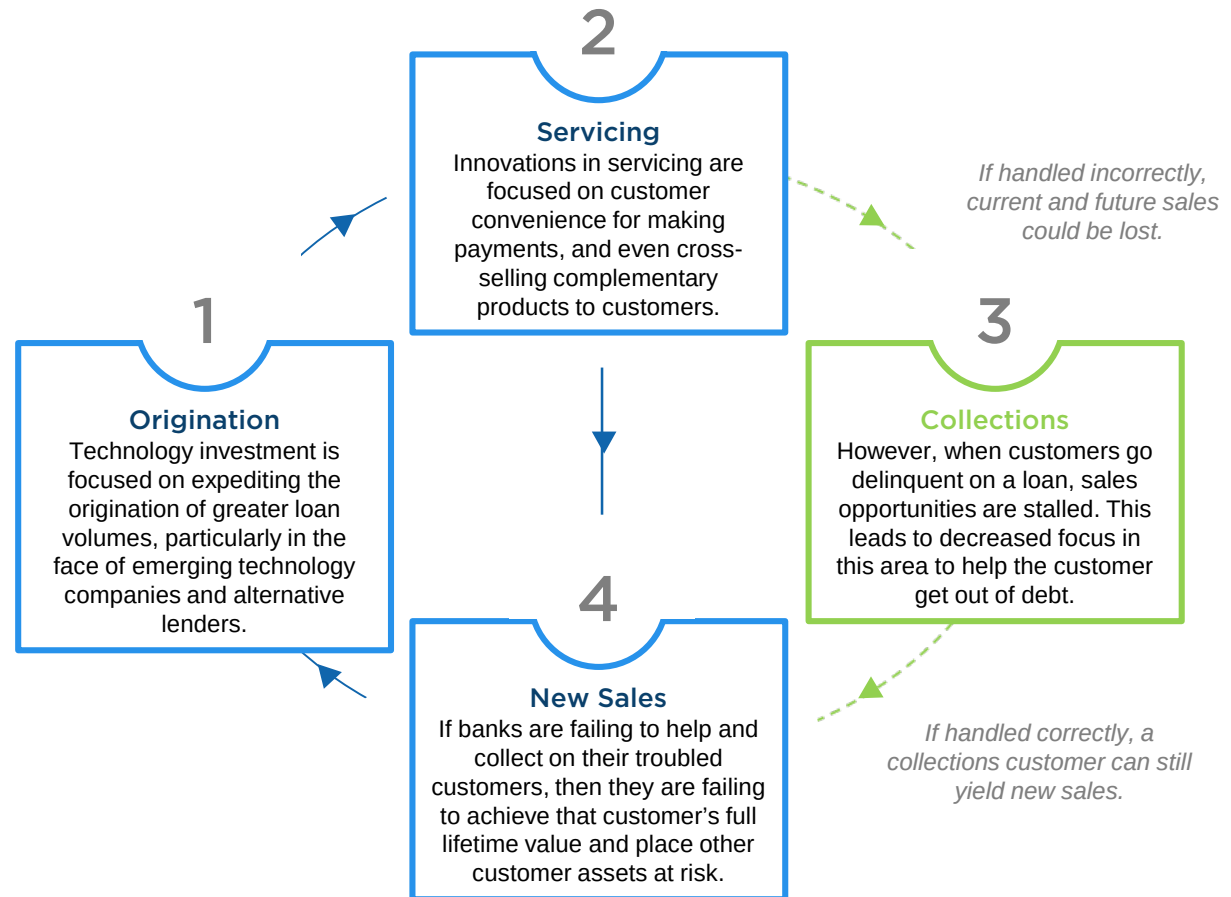
Failure to provide better service may result in a loss of customer lifetime value and the souring of other customer relationships.

- Along with experienced personnel, technology and information-sharing may help extend customer lifetime value.
- Additionally, analytics in early stage collections can help predict and prevent loan defaults.

## THE FORMULA FOR INCREASING LIFETIME VALUE

### Customer Relationship Lifecycle Segments

*Illustrative*



Source: CEB analysis.

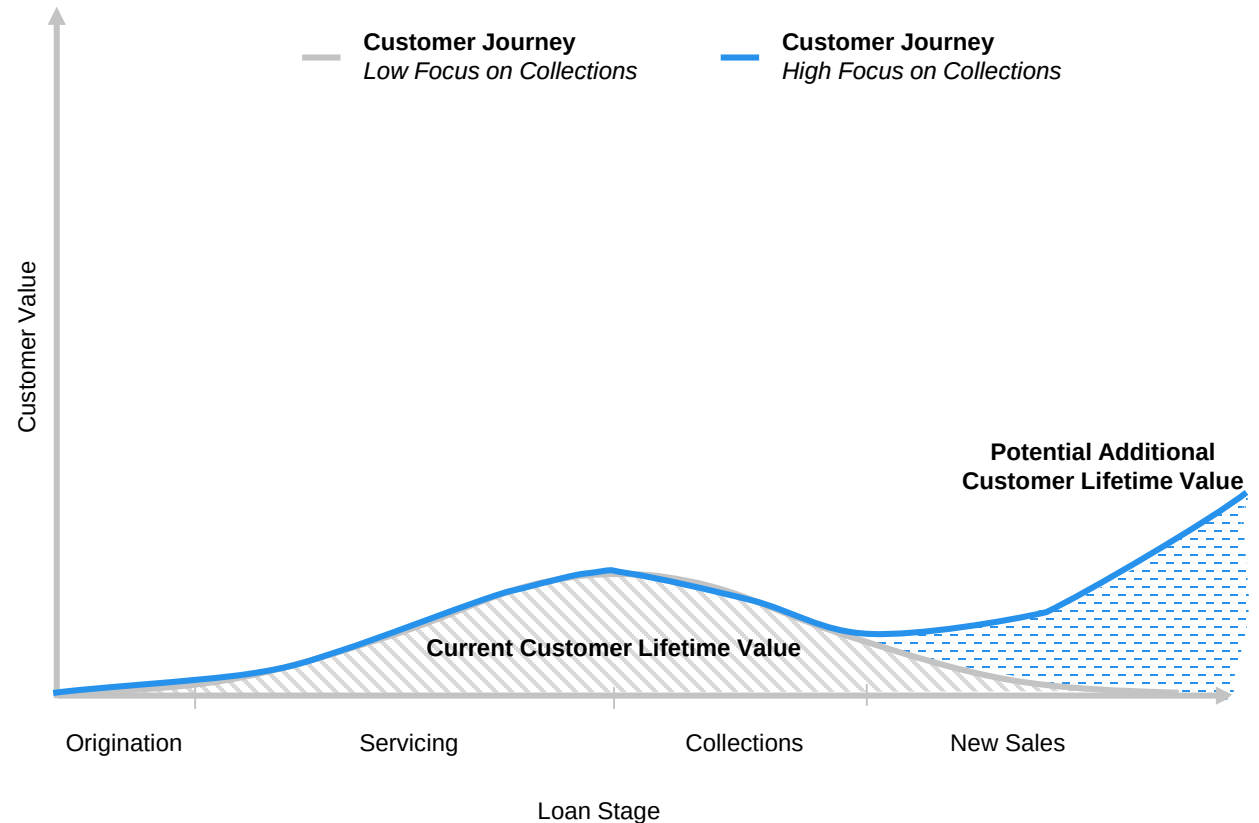
Collections is a reverse-sales environment in which the goal of the bank is not to profit additionally from a customer, but to recoup debts owed or mitigate losses.

- When successful, loan collections helps retain customers to extend the customer lifecycle and cross-sell additional products.
- Failure to provide better service may result in a loss of customer lifetime value.

## RETHINKING SERVICE IN A REVERSE-SALES ENVIRONMENT

### Customer Lifetime Value Curve

*Illustrative*



Source: CEB analysis.

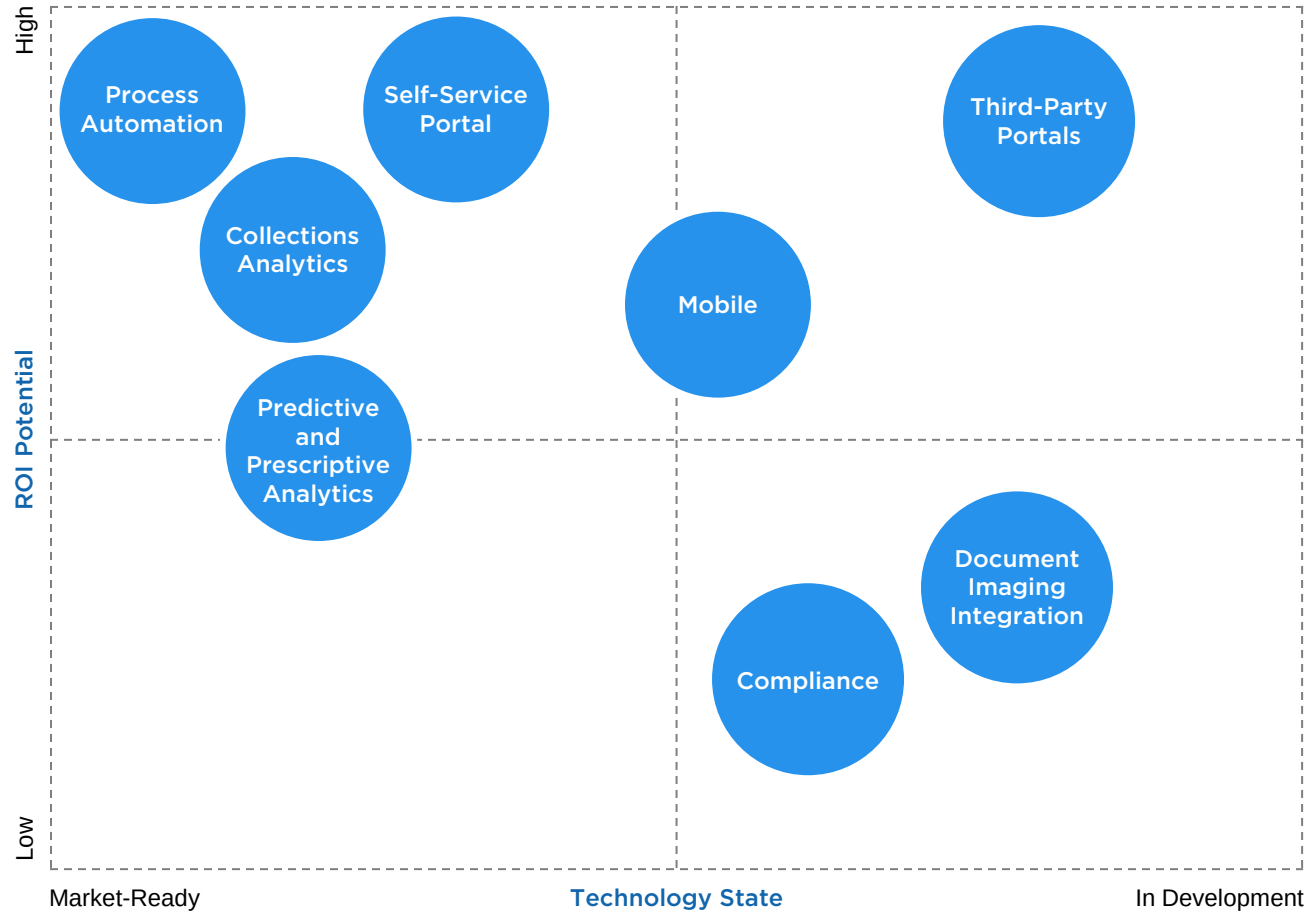


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VENDOR LANDSCAPE  
PRODUCT RANKINGS

# EMERGING TECHNOLOGY LANDSCAPE

## Individual Technologies Influencing IT Spend

Our spending models are partially influenced by the emergence of new technologies and trends in the loan collections technology space.



### ROI Potential

Measures the relative returns an institution can expect to receive from an investment in the technology.

### Technology Stage

Measures the technology's level of development and readiness in the market.

### Strategic Importance (next page)

Technologies and trends with higher ROI potential and higher market-readiness earn a higher strategic importance rating.

# EMERGING TECHNOLOGY LANDSCAPE DEFINITIONS

Strategic  
Importance  
Rating

## Collections Analytics:

Uses analytics harnessing alternate data sources to get a more complete understanding of the customer.



High

## Compliance:

Includes a compliance team, function, or department to identify new and changing regulations, and has built-in compliance functionality into the solution.



Low

## Document Imaging Integration:

Can integrate with an enterprise content and document management system, or includes native functionality to upload and attach to the customer, account, or entity.



Low

## Mobile:

Includes mobile functionality for collections on smartphones and/or tablets, particularly important in emerging markets.



Med

## Predictive and Prescriptive Analytics:

Uses predictive algorithms to preempt delinquency and default, as well as prescriptive analytics to suggest how to best reach and collect on the loan portfolio.



Med

## Process Automation:

Facilitates end-to-end automation of processes in the collections process to help banks manage large volumes of loans.



High

## Self-Service Portal:

Features a self-service portal for customers to access to perform tasks, such as stating reasons why they are unable to pay or restructuring payment plans.



High

## Third-Party Portals:

Includes separate B2B portals for third-parties (e.g., collection agencies, legal, government agencies) to access limited controls for collections functions on the same interface.



Med

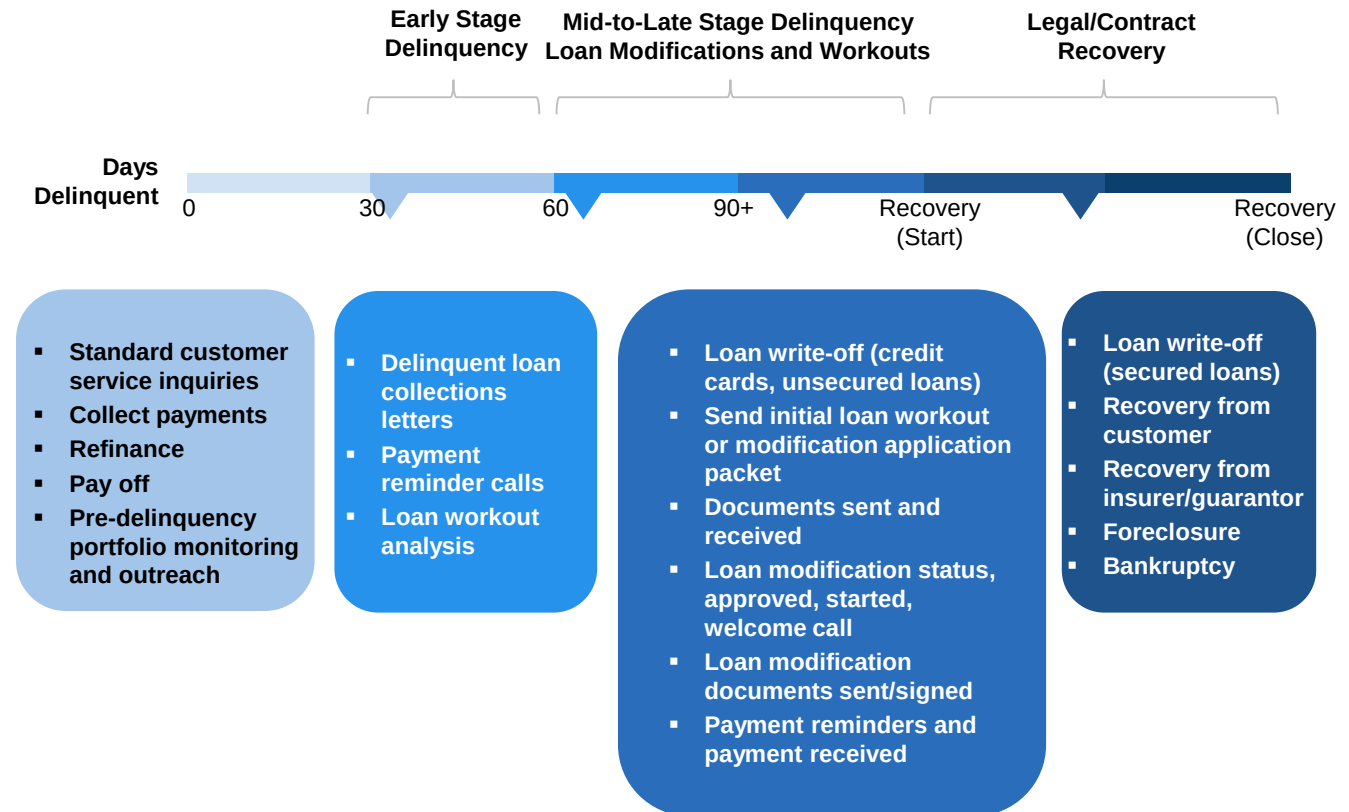
Financial institutions should invest in technologies with a higher strategic importance rating, as these technologies and trends are likely to yield higher ROI and are more market-ready in nature. Our methodology is based on a variety of factors, including financial institution interviews and technology provider roadmaps.

Loan collections processes are lengthy, costly, and complex, covering collections stages from early stage delinquency to recovery.

- Financial institutions often operate the three major loan collections stages from different geographical locations, in separate specialized departments.
- Systems that support each collection stage may be separate from each other and require numerous manual employee interventions to complete a task.
- Integrating the systems and data transfer would integrate processes and make data available at every stage in the process.

## COMPLEX, MANUAL PROCESSES NEED AUTOMATION

### Retail Loan Collections Processes, Tasks, and Timelines



Source: CEB analysis.

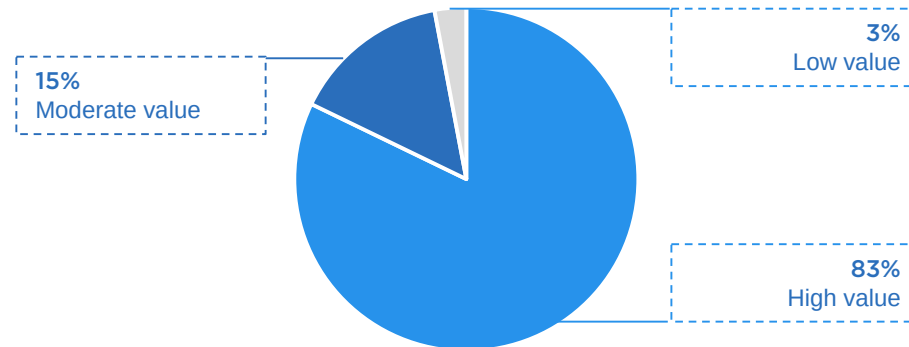
Self-service solutions are considered to be highly valuable by retail banking executives.

- Loan collections is a sensitive topic for customers, and many customers prefer to conduct collections activities through self-service channels.
- Most often, customers want to be able to view their loan information, make payments, and provide reasons why they cannot pay if that is the case.

## NEW SELF-SERVICE CHANNELS FOR TROUBLED CUSTOMERS

### Overall Value of Self-Service Technology Solutions

Percentages of Retail Banking Executives Rating Collections Technology as 'High Value' (Somewhat High, High, or Very High), 'Moderate Value,' or 'Low Value' (Very Low, Low, or Somewhat Low)



n = 37.

Source: CEB 2015 Technology Adoption & Investment Survey.

Note: Percentages may not add up to 100% due to rounding.

### Leading Components of a Self-Service Solution

Archetypal Screenshot from Live Product Demonstration

**I find it difficult to pay**

- 1 Why have you been delaying your payments?
- 2 When do you think that your financial situation will be stabilized?
- 3 Would you be interested in refinancing your debts with a new property-secured loan and with an indicative monthly payment of € 80 for € 10.000(\*)?
- 4 How much can you pay?  
What is the monthly payment you can afford (in €)?  
What is the desired settlement duration?
- 5 Additional comments (optional)

**Inability to pay**  
Provides a way for customers to restructure payment plans and give a reason for a late payment

**Product refinancing**  
Opens the conversation for possible refinancing or other products the customer might be eligible for to continue the customer relationship

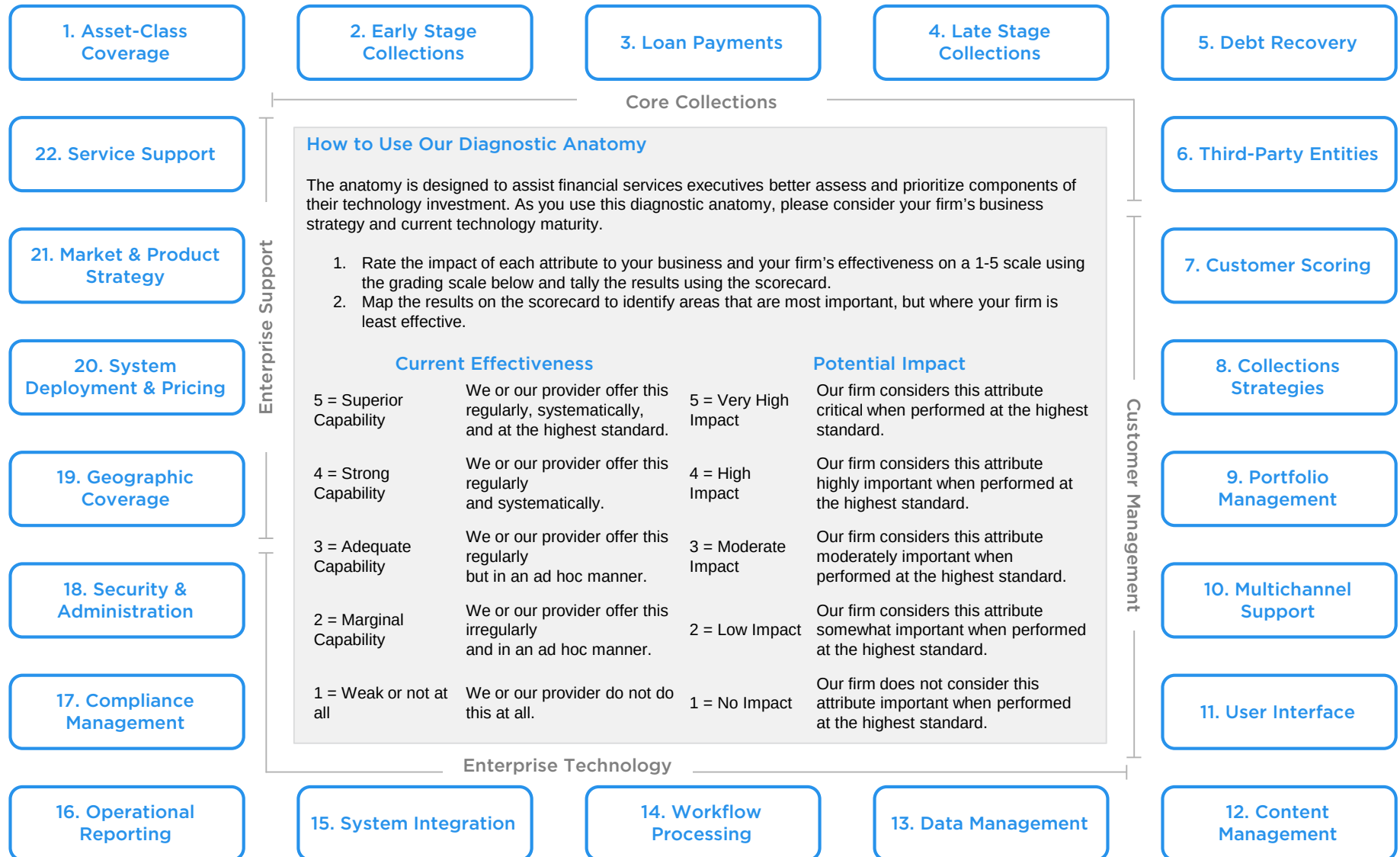
**Customized terms**  
Allows the customer to specify what they can pay and when

Source: EXUS live demonstration; CEB analysis.



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# LOAN COLLECTIONS SYSTEMS DIAGNOSTIC ANATOMY



Source: CEB analysis.

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# DIAGNOSTIC ANATOMY DEFINITIONS

## 1. Asset-Class Coverage

The system supports multiple types of consumer loans, mortgages, product features, and asset-backed security and mortgage-backed security structures.

## 2. Early Stage Collections

The system tracks early stage collections (30-60 days delinquent) and can set up collections processes by customer, loan product type, and collection strategy segments.

## 3. Loan Payments

The system receives payment information from the core banking servicing and/or G/L system; tracks promises to pay, partial payments, and fees; and transmits payment information back to the core processing system(s).

## 4. Late Stage Collections

The system monitors and tracks progress of late stage collections (90+ days) and loss mitigation activities, including loan write-off, foreclosure, short sale, and bankruptcy.

## 5. Debt Recovery

The system provides tools or integrates with collection agencies to recover payments from defaulted borrowers where the loan asset has been written off.

## 6. Third-Party Entities

The system integrates with collection agencies, ABS/MBS investors, CRCs, attorneys and other firms, and manages paperwork and fees. The system must import/export complete and accurate data to collections agencies and third parties, and support compliance issues.

## 7. Customer Scoring

The system has capabilities to score customers, loans, and collateral against a variety of metrics, and supports rules-based scorecards.

## 8. Collections Strategies

The system can segment collection strategies.

## 9. Portfolio Management

The system performs portfolio analysis to monitor the portfolio, provide input to dynamic collections strategies, and identify opportunities for the lender.

## 10. Multichannel Support

The system supports the integration of traditional and digital channels.

## 11. User Interface

The system features an intuitive graphical user interface and simplified tools for employees and customers.

# DIAGNOSTIC ANATOMY DEFINITIONS

## 12. Content Management

The system has or integrates seamlessly with a content management system that can send and receive documents from multiple internal and external systems.

## 13. Data Management

The system can receive and use data from the core servicing system and external systems to execute a wide variety of core collections and customer tasks.

## 14. Workflow Processing

The system has built-in workflow capabilities or can integrate with an external BPM system.

## 15. System Integration

The system possesses a flexible architecture which enables banks to easily add or modify interfaces to the core loan servicing systems, collections agencies, attorneys, and courts.

## 16. Operational Reporting

The system has standard and easily customizable and auditable operational reporting at both the loan level and portfolio level.

## 17. Compliance Management

The system manages internally and externally generated compliance data, analytics, and documents for auditable internal, regulator, and investor requirements for different countries.

## 18. Security & Administration

The system authorizes administrators to manage role-based permissions, create rules, and conduct auditing activities.

## 19. Geographic Coverage

The technology provider has clients and optimizes the system for clients in multiple global geographic regions and has multiregional support for languages and currencies.

## 20. System Deployment & Pricing

The system offers multiple deployment methods and alternative pricing models, and it supports third-party collections.

## 21. Market & Product Strategy

The provider offers an established product with a growing market share and diverse client base.

## 22. Service Support

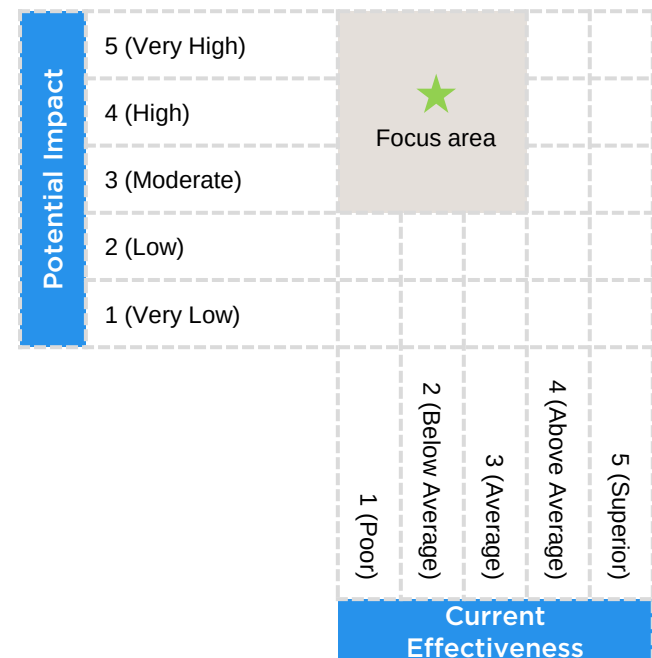
The provider effectively identifies and aligns technology implementation to client needs.

# DIAGNOSTIC ANATOMY SCORECARDS

|    | Core Collections            | Current Effectiveness | Potential Impact |
|----|-----------------------------|-----------------------|------------------|
| 1  | Asset-Class Coverage        |                       |                  |
| 2  | Early Stage Collections     |                       |                  |
| 3  | Loan Payments               |                       |                  |
| 4  | Late Stage Collections      |                       |                  |
| 5  | Debt Recovery               |                       |                  |
| 6  | Third-Party Entities        |                       |                  |
|    | Customer Management         | Current Effectiveness | Potential Impact |
| 7  | Customer Scoring            |                       |                  |
| 8  | Collections Strategies      |                       |                  |
| 9  | Portfolio Management        |                       |                  |
| 10 | Multichannel Support        |                       |                  |
| 11 | User Interface              |                       |                  |
|    | Enterprise Technology       | Current Effectiveness | Potential Impact |
| 12 | Content Management          |                       |                  |
| 13 | Data Management             |                       |                  |
| 14 | Workflow Processing         |                       |                  |
| 15 | System Integration          |                       |                  |
| 16 | Operational Reporting       |                       |                  |
| 17 | Compliance Management       |                       |                  |
| 18 | Security & Administration   |                       |                  |
|    | Enterprise Support          | Current Effectiveness | Potential Impact |
| 19 | Geographic Coverage         |                       |                  |
| 20 | System Deployment & Pricing |                       |                  |
| 21 | Market & Product Strategy   |                       |                  |
| 22 | Service Support             |                       |                  |

## Using Our Diagnostic Anatomy Scorecards

Retail banking executives should complete the scorecard on the left using the loan collections systems diagnostic anatomy and map their results onto the matrix on the right. Attributes that have a higher potential impact rating, but low current effectiveness, are areas of focus for the bank. Executives should look to invest in technology solutions that address these focus areas.





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# FEATURE AUDIT

## Feature Audit Key

- Standard Native
- Premium Native
- Third-Party Premium
- 12 Month Roadmap
- 24 Month Roadmap

EXUS  
EXUS Financial Suite (EFS)

EXUS  
EXUS Financial Suite (EFS)

EXUS  
EXUS Financial Suite (EFS)

### Loan Products Supported

|                                      |   |
|--------------------------------------|---|
| Vehicle loans                        | ● |
| Credit card loans                    | ● |
| Personal loans                       | ● |
| Student loans                        | ● |
| Mortgage loans                       | ● |
| Demand deposit accounts (DDAs)       | ● |
| ABS loans                            | ● |
| MBS loans                            | ● |
| Small business loans                 | ● |
| Commercial loans                     | ● |
| Islamic loans (for any of the above) | ● |

### Payment Forms Accepted

|                          |   |
|--------------------------|---|
| Cash payments            | ● |
| Check payments           | ● |
| Online payments          | ● |
| Mobile payments          | ● |
| PayPal payments          | ● |
| Western Union payments   | ● |
| Full payments            | ● |
| Partial payments         | ● |
| Late payments (and fees) | ● |
| Promise to pay           | ● |
| Account payments         | ● |

### Channel Integration

|                |   |
|----------------|---|
| Online         | ● |
| Mobile         | ● |
| IVR            | ● |
| Email          | ● |
| Contact center | ● |
| Branch         | ● |
| Print mail     | ● |

### Portals and Interfaces

|                           |   |
|---------------------------|---|
| Online collections portal | ● |
| Mobile collections portal | ● |
| Third-party (B2B) portal  | ● |
| Internal employees portal | ● |
| 24x7 portal uptime        |   |

# FEATURE AUDIT

## Feature Audit Key

- Standard Native
- Premium Native
- Third-Party Premium
- 12 Month Roadmap
- 24 Month Roadmap

EXUS  
EXUS Financial Suite (EFS)

EXUS  
EXUS Financial Suite (EFS)

### Collections Strategy

|                               |   |
|-------------------------------|---|
| Outreach channel optimization |   |
| Champion-challenger testing   | ● |
| Behavioral scoring            | ● |
| Customer scorecards           | ● |
| Fraud scoring                 | ● |
| Skip tracing tools            | ● |
| Credit scoring                | ● |
| Collateral scoring            | ● |
| Portfolio scoring             | ● |
| Strategy testing              | ● |

### Collections Tools

|                                            |   |
|--------------------------------------------|---|
| Automatic notifications                    | ● |
| Rules-based triggers                       | ● |
| Audit trailing                             | ● |
| Automatic routing                          | ● |
| <b>Global and Regional Coverage</b>        |   |
| Sharia compliant                           | ● |
| North America (product and support)        |   |
| Latin America (product and support)        |   |
| Europe (sales and support)                 | ● |
| Asia-Pacific (sales and support)           |   |
| Middle East and Africa (sales and support) | ● |

# FEATURE AUDIT DEFINITIONS

## Feature Legend

|                               |                                                                                                                                                                             |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ● Standard Native Feature     | A feature contained in the base package of the solution. Standard native features are provided solely by the firm.                                                          |
| ● Premium Native Feature      | A feature that is only available at an additional cost or as an addition to the base package of the solution, and is provided solely by the firm.                           |
| ● Third-Party Premium Feature | A feature that is only available at an additional cost or as an addition to the base package of the solution, and is provided by a third-party firm or integration partner. |
| ● Plan to Offer in 12 Months  | A feature that is on the firm's product roadmap for the next 12 months, to be provided by the firm, third-party firm, or integration partner.                               |
| ● Plan to Offer in 24 Months  | A feature that is on the firm's product roadmap for the next 24 months, to be provided by the firm, third-party firm, or integration partner.                               |

## Loan Products Supported

|                                      |                                                                                                          |
|--------------------------------------|----------------------------------------------------------------------------------------------------------|
| Vehicle loans                        | The system collects on vehicle loans.                                                                    |
| Credit card loans                    | The system collects on credit card loans.                                                                |
| Personal loans                       | The system collects on personal loans.                                                                   |
| Student loans                        | The system collects on student loans.                                                                    |
| Mortgage loans                       | The system collects on mortgage loans.                                                                   |
| Demand deposit accounts (DDAs)       | The system collects on loans in DDAs.                                                                    |
| ABS loans                            | The system collects on loans in ABS.                                                                     |
| MBS loans                            | The system collects on loans in MBS.                                                                     |
| Small business loans                 | The system collects on small business loans.                                                             |
| Commercial loans                     | The system collects on commercial loans.                                                                 |
| Islamic loans (for any of the above) | The system collects on loans with Islamic banking standards in the regions it serves and offers support. |

# FEATURE AUDIT DEFINITIONS

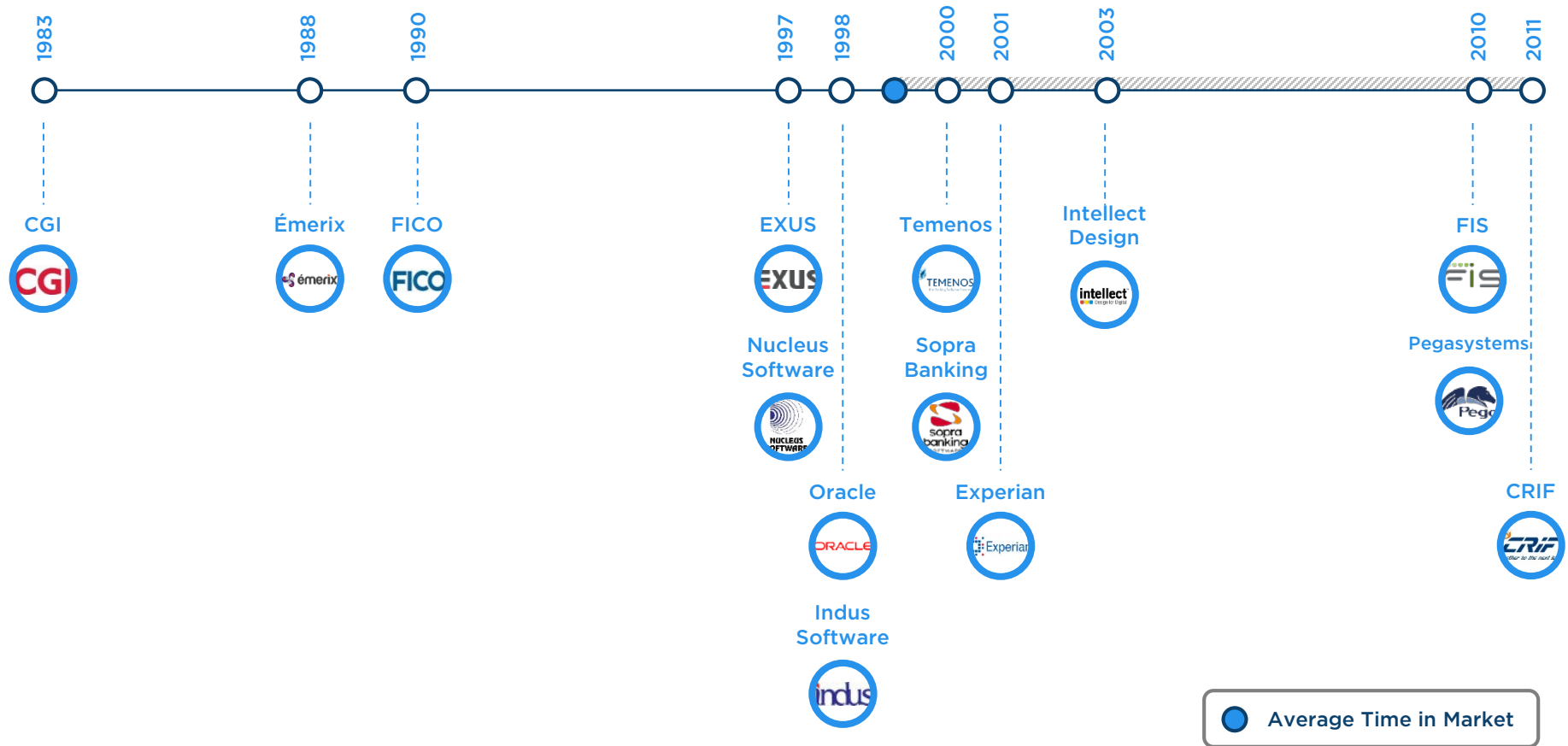
| Payment Forms Accepted    |                                                                                                                                                              |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cash payments             | The system can collect payments in cash form.                                                                                                                |
| Check payments            | The system can collect payments in check form.                                                                                                               |
| Online payments           | The system can collect payments as online payments.                                                                                                          |
| Mobile payments           | The system can collect payments as mobile payments.                                                                                                          |
| PayPal payments           | The system can collect payments as PayPal payments.                                                                                                          |
| Western Union payments    | The system can collect payments as Western Union payments.                                                                                                   |
| Full payments             | The system can process full loan payments for any loan.                                                                                                      |
| Partial payments          | The system can process partial loan payments for any loan.                                                                                                   |
| Late payments (and fees)  | The system can process late payments and related fees for any loan.                                                                                          |
| Promise to pay            | The system can process customer promise-to-pay agreements.                                                                                                   |
| Account payments          | The system can process account payments and distribute payments to multiple loans or accounts.                                                               |
| Channel Integration       |                                                                                                                                                              |
| Online                    | The system can send and receive data from the online channel in real time.                                                                                   |
| Mobile                    | The system can send and receive data from the mobile channel in real time.                                                                                   |
| IVR                       | The system can send and receive data from the IVR channel in real time.                                                                                      |
| Email                     | The system can send and receive data from the email channel in real time.                                                                                    |
| Contact center            | The system can send and receive data from the contact center channel in real time.                                                                           |
| Branch                    | The system can send and receive data from the branch channel in real time.                                                                                   |
| Print mail                | The system can send and receive data from a third-party or in-house print vendor channel.                                                                    |
| Portals and Interfaces    |                                                                                                                                                              |
| Online collections portal | The system offers an online collections portal to customers to make payments and view loan information.                                                      |
| Mobile collections portal | The system offers a mobile collections portal to customers to make payments and view loan information.                                                       |
| Third-party (B2B) portal  | The system offers a third-party (B2B) collections portal to customers to access terms of agreement with the financial institution and perform related tasks. |
| Internal employees portal | The system has an internal employee portal to perform collections and customer service-related tasks.                                                        |
| 24x7 portal uptime        | The system supports portal access and usage 24 hours a day, 7 days a week.                                                                                   |

Source: CEB analysis.

# FEATURE AUDIT DEFINITIONS

| Collections Strategy                       |                                                                                                                  |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Outreach channel optimization              | The system combines customer preferences with collections outreach strategies to optimize collection activities. |
| Champion-challenger testing                | The system uses a champion-challenger testing strategy to identify best practice collections strategies.         |
| Behavioral scoring                         | The system uses behavioral data to create a customer score for collections activities.                           |
| Customer scorecards                        | The system creates customer scorecards to segment customers.                                                     |
| Fraud scoring                              | The system integrates with or creates fraud scores.                                                              |
| Skip tracing tools                         | The system has or integrates with skip tracing tools to track customers.                                         |
| Credit scoring                             | The system integrates with or creates credit scores for customers.                                               |
| Collateral scoring                         | The system has or integrates with capabilities to score customer collateral.                                     |
| Portfolio scoring                          | The system has or integrates with capabilities to score loan portfolios.                                         |
| Strategy testing                           | The system uses strategy testing to identify best practice collections strategies.                               |
| Collections Tools                          |                                                                                                                  |
| Automatic notifications                    | The system supports automatic notifications to alert employees of collections items needing attention.           |
| Rules-based triggers                       | The system allows users to set rules that will trigger collections functions.                                    |
| Audit trailing                             | The system provides the ability to generate documents for auditing purposes.                                     |
| Automatic routing                          | The system can automatically route loans into late stage and debt recovery queues based on loan status.          |
| Global and Regional Coverage               |                                                                                                                  |
| Sharia compliant                           | The system meets all Shariah compliance principles for the regions in which it serves.                           |
| North America (sales and support)          | The technology vendor has product sales, service, and support staff in North America.                            |
| Latin America (sales and support)          | The technology vendor has product sales, service, and support staff in Latin America.                            |
| Europe (sales and support)                 | The technology vendor has product sales, service, and support staff in Europe.                                   |
| Asia-Pacific (sales and support)           | The technology vendor has product sales, service, and support staff in APAC.                                     |
| Middle East and Africa (sales and support) | The technology vendor has product sales, service, and support staff in the Middle East & Africa.                 |

# INITIAL PRODUCT RELEASE DATES



Source: Participating technology providers; CEB analysis.

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# EXUS

## EXUS FINANCIAL SUITE (EFS)



### Company Overview

EXUS is a global technology company focused exclusively on providing loan collections lifecycle management software to financial institutions and telecommunications companies. The company serves a large geographical market across Europe, the Middle East, and Africa, successfully delivering collections systems to small, medium, and large financial institutions in 14 countries. EXUS has regional sales, support, and development teams serving each of these countries together with its local partners, which along with its parameter-driven software and deep collections domain knowledge, enables the firm to develop its software with local- and country-specific compliance, products, and business practices. EXUS also has financial institution clients in Islamic banking, and can collect on Islamic loans in countries such as Bahrain, Qatar, Egypt, and Jordan. Ninety-percent of its clients are in retail banking.

### Product Overview

EXUS Financial Suite (EFS) consists of five software products designed to manage the entire collections process, which firms can use collectively or individually according to their needs. The suite consists of: EXUS Collections, EXUS Legal Recoveries, EXUS Collections Self-Service, EXUS Early Warning System, and EXUS Collections Analytics. In addition to core collections capabilities, these modules used together help with analysis, prediction, and compliance, while also providing employees and end-customers with complete functionality to efficiently execute tasks through the loan collections and recovery process. EXUS recently launched new, flexible pricing structures and deployment models for EFS. It now offers on-premise, ASP, and cloud deployments with a traditional or annualized (sum of all initial costs is divided into annual payments) payment structure. Over the next few years, EXUS expects a significant percentage of its sales to shift toward these new models.

### Product Highlights

- **Collections strategy management:** EFS provides a graphical timeline view of all collection strategies deployed. From this view, administrators can visually see which campaigns overlap or conflict, and create selective campaigns by product type. Administrators can add or remove a campaign from this screen, or adjust campaigns on the timeline by sliding the bar across the timeline to designate the length of each campaign type (e.g., calling campaign).
- **Self-service portal:** EXUS Collections Self-Service, launched in 2015, is an online self-service collections portal, which enables customers to make payments on multiple loans, view loan details, and even initiate a loan workout plan process if they are experiencing difficulty in paying. Customers can adjust the amount they pay and schedule future payments.
- **EXUS Early Warning System:** EXUS Early Warning System is a complementary module that provides tools and capabilities to analyze customer behavior and data, and develop preventative strategies before the customer defaults. Thus, this capability helps lenders maintain loan revenues and reduce losses.

### CEB View

EXUS's IT architecture and deployment capabilities have enabled it to sell its system to financial institutions of any size, including smaller institutions that many other vendors don't support. EXUS's rapid deployment model and recently launched flexible pricing structure are designed to cater to the needs of (typically) smaller institutions that may face prohibitive upfront costs to large-scale technology replacements, such as those demanded by loan collections technology. This is particularly practical in loan collections, where upfront IT costs are high, and the lifespan of the technology is long. Additionally, this strategy may help bolster support from upper management for these types of key technology upgrades, as costs are paid out over time as the benefits are realized. Although lesser known outside its primary regions of operation, EXUS's loan collections technology, staff experience, and focus on retail banking make it a very attractive solution for institutions of any size to consider when replacing or upgrading their collections technology.

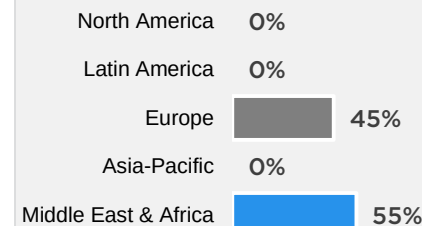
### Key Statistics

**Company Type:** Private  
**Year Founded:** 1989  
**Headquarters:** London, United Kingdom  
**Full-Time Employees:** 132  
**FY 2014 Revenues:** Not disclosed  
**Clients for Product:** 18

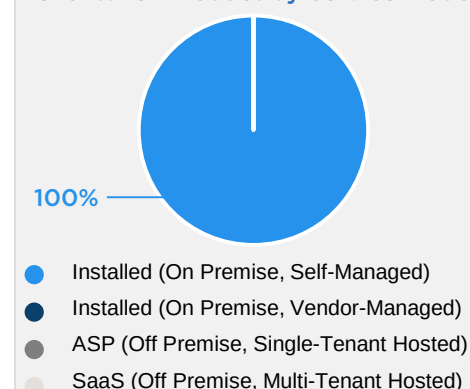
### 2016 Best-in-Class Rankings

|                                   |                     |
|-----------------------------------|---------------------|
| Core Collections                  | Customer Management |
| Enterprise Technology             | Enterprise Support  |
| Total Best-in-Class Rankings: 3/4 |                     |

### Clients for Product by Geography



### Clients for Product by Service Model

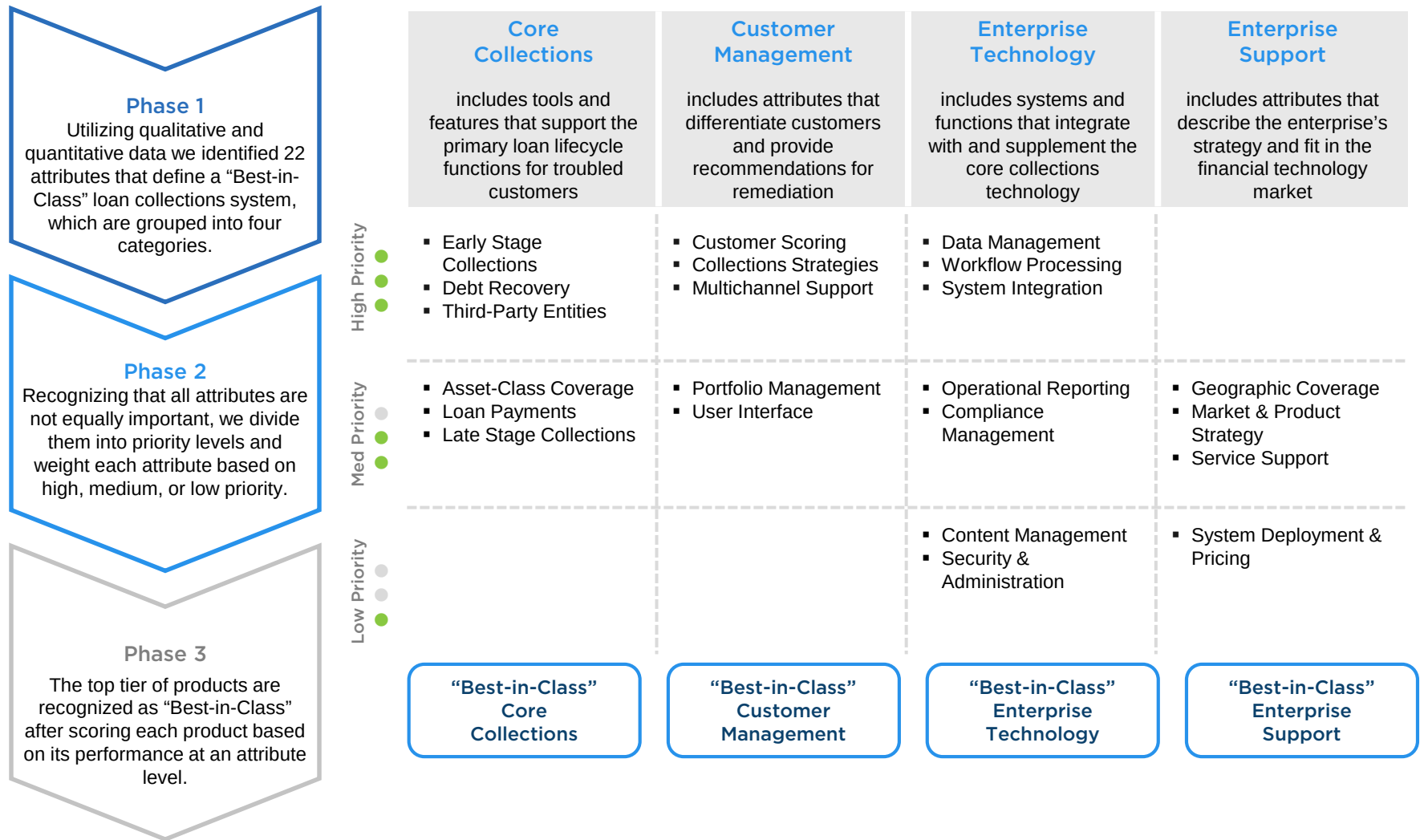


Source: EXUS.



MARKET TRENDS  
INVESTMENT FORECAST  
SCORING FRAMEWORK  
VENDOR LANDSCAPE  
**PRODUCT RANKINGS**

# SCORING METHODOLOGY



Retail banking executives should use this ranking matrix with the diagnostic anatomy to select the provider that best aligns with their firm's needs.

- Provider rankings are based on our five-point rating system for each of the 22 attributes in our loan collections systems diagnostic anatomy.

## SCORING MATRIX

■ "Best-in-Class" in the Anatomy Category

|                        |                                          | Core Collections | Customer Management | Enterprise Technology | Enterprise Support |
|------------------------|------------------------------------------|------------------|---------------------|-----------------------|--------------------|
| EXUS                   | EXUS Financial Suite (EFS)               | 4.93             | 4.89                | 4.76                  | 4.37               |
| CGI                    | Collections360 (CACS)                    | --               | --                  | --                    | --                 |
| CRIF                   | CRIF Credit Management Platform          | --               | --                  | --                    | --                 |
| Émerix                 | Émerix Tandem                            | --               | --                  | --                    | --                 |
| Experian               | Tallyman                                 | --               | --                  | --                    | --                 |
| FICO                   | FICO® Debt Manager™ Solution             | --               | --                  | --                    | --                 |
| FIS                    | FIS Default Manager                      | --               | --                  | --                    | --                 |
| Indus Software         | Indus Collections System (IC4)           | --               | --                  | --                    | --                 |
| Intellect Design       | Intellect Debt Management                | --               | --                  | --                    | --                 |
| Nucleus Software       | FinnOne Collections                      | --               | --                  | --                    | --                 |
| Oracle Corporation     | OFSLL                                    | --               | --                  | --                    | --                 |
| Pegasystems            | Pega Collections                         | --               | --                  | --                    | --                 |
| Sopra Banking Software | Collection Management                    | --               | --                  | --                    | --                 |
| Temenos                | Akcelerant Framework Collection Solution | --               | --                  | --                    | --                 |
| Category Average       |                                          | 4.28             | 4.23                | 4.25                  | 4.41               |

This graphic was published by CEB as part of a larger research report and should be evaluated in the context of the entire report.

CEB Technology Assessment research is a qualitative evaluation of a set of vendors in a specific market; it is NOT a stack ranking.

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Source: CEB analysis.

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Exus received three “Best-in-Class achievements in the Core Collections, Customer Management, and Enterprise Technology categories.

- Core Collections includes tools and features that support the primary loan lifecycle functions for troubled customers.
- Customer Management includes attributes that differentiate customers and provide recommendations for remediation.
- Enterprise Technology includes systems and functions that integrate with and supplement the core collections technology.

## “BEST-IN-CLASS” ACHIEVEMENTS FOR EXUS

### CORE COLLECTIONS

In 2015, EXUS released EXUS Early Warning System. This fully integrated module aims to prevent, not react to, threats around credit risk through early warning triggers, watch lists, and data analysis. This module covers both retail and commercial lending portfolios, and can also be implemented as a standalone unit to any existing loan collections.

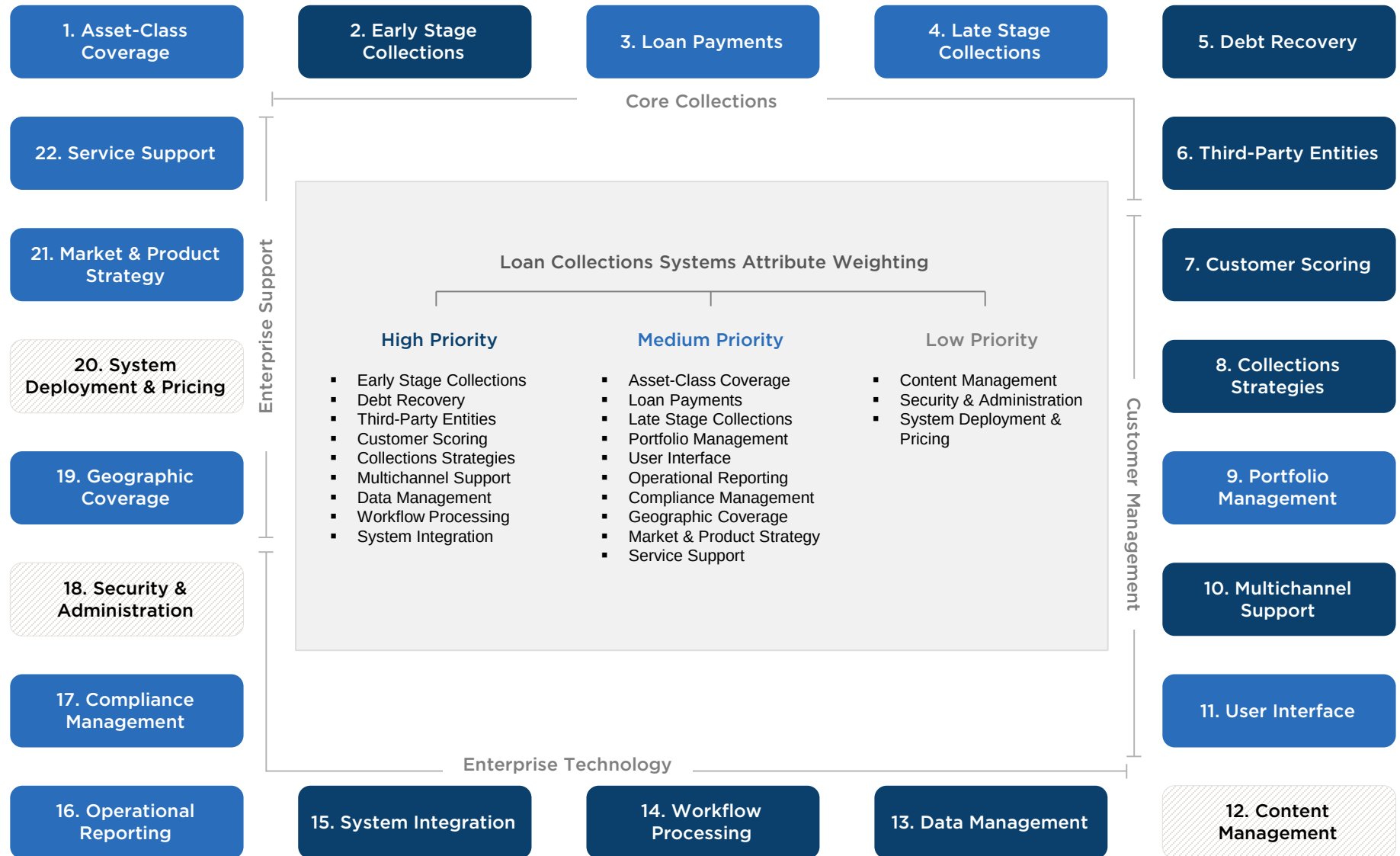
### CUSTOMER MANAGEMENT

EXUS' EFS Self-Service Portal is a key contributing factor to its best-in-class ranking in this category. This portal not only allows customers to view information about their loan, but it also allows them to perform sensitive collections tasks. For example, through the portal, the customer may provide reasons for their inability to pay, make payments, or restructure their payment plan without interacting in person.

### ENTERPRISE TECHNOLOGY

EFS has native document storage and attachment capabilities and additionally has built integrations with third-party document management systems, such as EMC Documentum. The solution allows users to attach documents to debtors, accounts, and actions (e.g., legal actions) to enable users to understand the customer's complete loan profile.

# LOAN COLLECTIONS SYSTEMS WEIGHTED ANATOMY



Source: CEB analysis.

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# UNDERSTANDING OUR SCORING METHODOLOGY

## Sample 1-5 Scoring Framework for 'Late Stage Collections' Attribute

|                                                                                                                                                                                                                                                                                                                          |                  |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>4. Late Stage Collections</div><div><div><div></div><div></div><div></div></div><div>Med</div></div><div>The system monitors and tracks progress of late stage collections (loans 90+ days due) and loss mitigation activities, including loan write-off, foreclosure, short sale, and bankruptcy.</div></div> | Scoring Criteria | 5 | The system supports the design and deployment of loss mitigation plans. The system also signals and routes to bankruptcy management at the appropriate stage and can manage and route through the entire bankruptcy life cycle. The system also manages foreclosure and bankruptcy for mortgages. It can support common country-level investor loss mitigation programs. The system uses integrated customer and internal and external data and has analytic capabilities to minimize loss. |
|                                                                                                                                                                                                                                                                                                                          |                  | 4 | The system supports the design and deployment of loss mitigation plans. The system also signals and routes to bankruptcy management at the appropriate stage and can manage and route through the entire bankruptcy life cycle. The system also manages foreclosure and bankruptcy for mortgages. It can support common country-level investor loss mitigation programs.                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                          |                  | 3 | The system supports the design and deployment of loss mitigation plans. The system also enables the collector to initiate and manage legal actions against the borrower. The system also signals and routes to bankruptcy management at the appropriate stage and can manage and route through the entire bankruptcy life cycle.                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                          |                  | 2 | The system supports the design and deployment of loss mitigation plans. The system also enables the collector to initiate and manage legal actions against the borrower.                                                                                                                                                                                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                          |                  | 1 | The system supports the deployment of preconfigured loss mitigation plans (e.g., forbearance plans, loan write-offs, and foreclosures).                                                                                                                                                                                                                                                                                                                                                     |