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TURNING THE UNDERBANKED INTO PROFITABLE CUSTOMERS

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In a highly competitive industry, financial services companies work hard to find and retain customers. But in these efforts, some groups have been consistently overlooked. Today, between 15% and 34%[1] of U.S. adults are unbanked or underbanked, depending on how those groups are defined. Worldwide, an estimated 1.7 billion adults are unbanked. [2]

The unbanked are those with no relationship with a bank, while the underbanked are those that may have one account with an institution but rely heavily on other services, such as payday lenders, to meet their financial needs. In general, the unbanked and underbanked are more likely to be lower-income, and often young, individuals — a group that has traditionally been seen as relatively costly and risky, and thus difficult for banks to serve profitably.

Now however, financial services companies are taking a growing interest in this segment. In part, that's because of a growing emphasis on the social issue of financial inclusion. But it's also due to an increasing appreciation of the business opportunity created as technology advances have changed the traditional formula. A number of fintech startups have taken advantage of those technologies to create products and services for the unbanked and underbanked — and they are showing that it can be done efficiently and profitably.

[1] Morning Consult, "How the Roughly One-Quarter of Underbanked U.S. Adults Differ From Fully Banked Individuals"

[2] World Bank Global Findex, 2017

In essence, technology is opening the door to turning the unbanked and underbanked into an attractive new customer segment for financial services. Estimates of potential revenue vary, but in the U.S. alone this segment is already spending some $189 billion annually on financial services [3] — much of it on relatively costly offerings such as check cashing, money orders, car-title lending, and reloadable prepaid debit cards. This potential market and the success of fintechs in serving it have not been lost on traditional financial services companies, and many are now exploring ways to provide services profitably to the unbanked and underbanked.

Solutions that target the unbanked and underbanked involve a range of technologies, including artificial intelligence (AI), chatbots, robotic process automation, the cloud, and biometrics. But the key enabling element is the ability to manage and use data quickly, accurately, and effectively to power customer interactions and automate decision-making about credit worthiness and risk. When it comes to working with the unbanked and underbanked, financial services organizations will need to use a broader range of data — including new sources of data — to accurately assess customers. And this data will need to be allied with new processes and practices, based on the right type of infrastructure, to enable companies to turn this segment into fully banked, profitable customers.

[3] Financial Health Network, "Financially Underserved Market Size Study," 2019

FINDING THE RIGHT DATA

Drawing on a wide variety of data to understand customers is a sound practice across all customer segments, but it becomes especially important when looking at the unbanked and underbanked. Often, this group is not accurately represented in traditional data sources, such as credit bureaus. Thus, in order to extend credit and support account onboarding activities such as Know Your Customer and Customer Identification programs, financial services companies will need to pull data from a variety of alternate data sources that cover areas such as utility payments, rent, buy now-pay later loans, debit bureau data, and so on. Similarly, the effective detection of potential fraud in credit applications from this segment will depend on access to

types of data that address the increasingly digital, phone-based nature of customer interactions, and include data from apps, email, devices, "liveness" checks, and biometric technologies, among other sources.

With the tremendous amount of data available today, financial services companies cannot simply pull from all relevant data sources. Accessing multiple sources takes time and creates delays in processes where quick decisions are critical. It can also be expensive, and ultimately increase the cost of originating loans and providing service to the unbanked and underbanked, eroding the profitability of the institution's efforts to reach them.

> Financial services companies need a process for narrowing down the huge universe of potential data to focus on the right data.

Instead, financial services companies need a systematic way to determine which data sources to use when looking at the unbanked and underbanked, the order in which various data sources should be accessed, and the optimal combination of data sources. That is, they need a process for narrowing down the huge universe of potential data to focus on the right data. To that end, financial services companies can establish a framework for determining the value of various sets of data and deciding which data sources to use. This should be based on two key factors, coverage and filter value. Coverage essentially means the breadth of the data source — what percentage of the targeted segment the source will address. Filter value describes the depth of the data — the degree to which the data source will support effective business decisions or instead needs to be supplemented with additional data.

Filter value is useful in situations where the company has to choose data sources or determine the sequence in which it should use multiple data sources. For example, if Data Source A filters out 80% of credit applications being considered while Data Source B filters out only 70%, decision makers can call on Data Source A first and then draw on Data Source B to fill in the remaining 20%. (This assumes 100% of the segment has similar credit amounts involved. A more complicated framework can be developed if a population segment has significantly different average credit amounts.)

Together, coverage and filter value can be used to determine the predictive value of data from given sources or combinations of sources.

This framework can be the basis of an AI-driven process for sorting through potential data sources in order to develop the required insights using the least number of data sources in the most effective combinations.

For example, to assess incoming credit applications, this process would draw on AI to identify the conditions to be used to assess data sources, such as whether the applicant is located on the U.S. East Coast. (See Figure 1.) The process would then determine which data source provides the greatest coverage for that condition. If Credit Bureau 1 does, the process would first draw credit information from this source and then turn to Credit Bureau 2 for the applicants not covered by Credit Bureau 1. For applicants who have either a sufficiently high credit score (e.g., 550 or higher) or a sufficiently low credit score (e.g., 330 or lower), the process would move directly to the appropriate model for making a credit decision. On the other hand, for applicants in the gray area, with in-between credit scores or where the credit file is too thin to provide an accurate score, the process would next pull data from nontraditional sources (such as rent payments, payday lending, or utility bills) and then use an appropriate decision model.

In addition to allowing financial services companies to take a targeted approach to accessing various data sets, this framework can be used to help negotiate prices with data vendors based on the value to the institution and the insights that can be gleaned from the data.

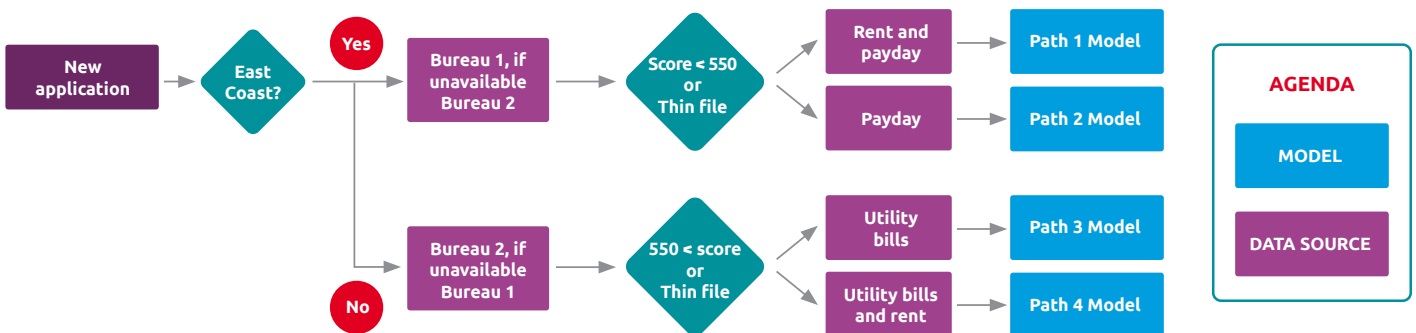## Data-sourcing analysis process, hypothetical example

Figure 1

THE KEY FEATURES OF THE INFRASTRUCTURE

> The infrastructure will need to support the continuous monitoring of the value being added by various types of data.

Financial services companies will need an infrastructure for handing and combining this multisource, nontraditional data along with traditional data on accounts, demographics, and so forth. This infrastructure should be cloud-based, because it will need to house data from various and often competing data sources.

Data sources are constantly evolving, so the infrastructure will need to support the continuous monitoring of the value being added by various types of data, along with the evaluation of new data sources and new combinations of data from competing sources. This includes various credit bureaus that might provide

differing credit scores for assessing credit worthiness, and complementary sources that provide additional perspectives, such as utility and rent data. Because of this fluid approach to data sourcing, financial institutions should establish usage-based contractual agreements with data vendors — agreements that are flexible enough to accommodate these new approaches.

The infrastructure should enable companies to create models using these combined sets of data, which will need to be able to handle as many as 200 data elements, and easily deploy them to assess credit risk, fraud, etc. Some of these models can be grouped

to minimize the number of data calls during execution and avoid disruptions to system performance. Machine learning (ML) models are a natural fit for these tasks, given the large number of credit attributes involved, and these should be built and executed in a real-time environment. Otherwise, they would need to be run in batch mode, which would mean assessing millions of accounts in short, specific time windows — often, just a few hours.

It's also important to recognize that much of the data being used for these processes is likely to fall under regulations such as the Fair Credit Reporting Act and Regulation B in the United States, which means that data will need to be anonymized to mask personal information. This should be done through a common process across sources, and include the creation of a unique ID for each specific consumer in order to link data that is being drawn from many different sources. (See Figure 2.) Performance data from the lender's database would also need to be anonymized and uniquely identified using the same process, so that it can be fed into the value framework to provide insight into actual default ratios in specific segments.

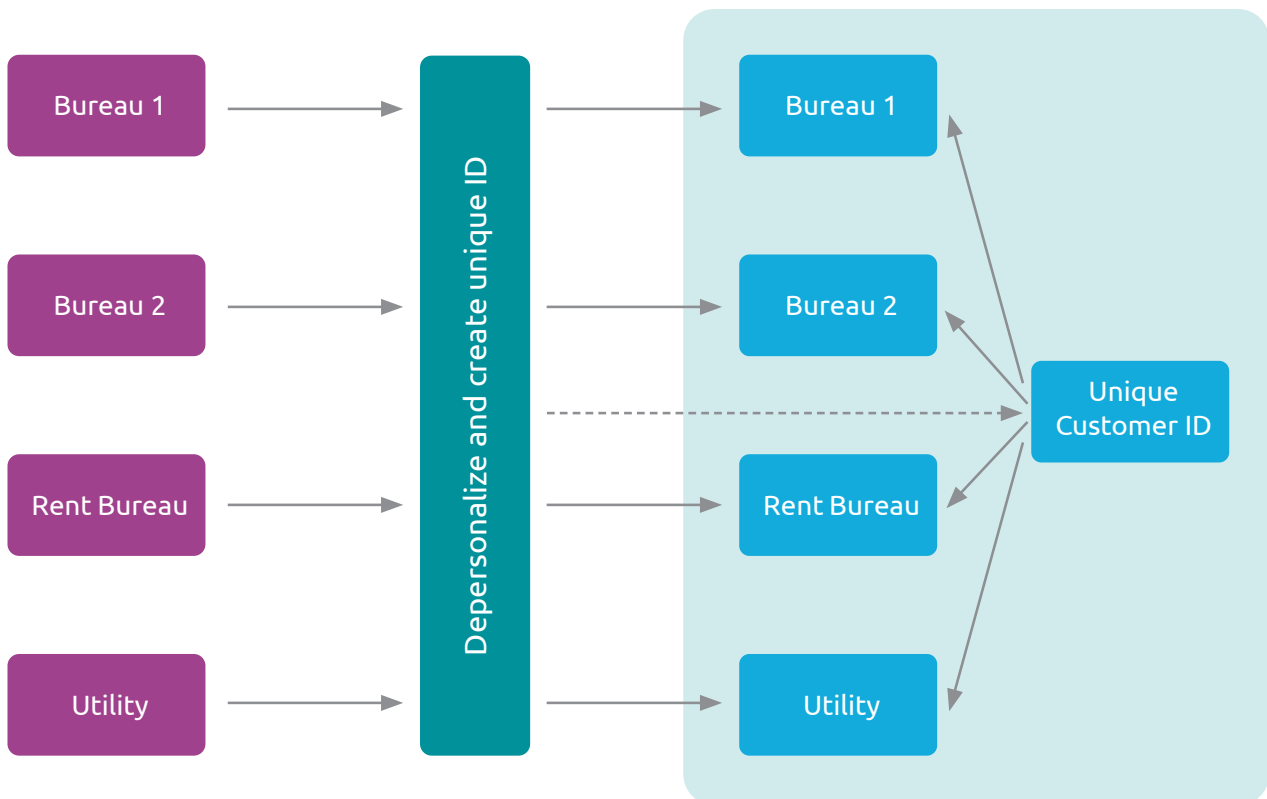# Creating unique customer IDs to link anonymized data

Figure 2

AN END-TO-END APPROACH TO REACHING THE UNBANKED AND UNDERBANKED

Altogether, this approach can provide financial services companies with a comprehensive platform that provides the end-to-end capabilities needed to successfully serve the unbanked and underbanked. With this platform, financial services organizations can:

- Ingest data from a variety of sources and optimize the combination and sequencing of data sources using a value framework and ML.

- Build, deploy, and govern various AI- and ML-based models for different segments, using combined data drawn from both traditional and nontraditional sources.

- Monitor performance of the process and continuously fine-tune and improve data strategies.

- Continue to use additional data from multiple competing and complementary sources to increase insights.

- Anonymize data and use unique IDs across multiple sources to protect data and comply with regulations.

- Continue to adapt to changing conditions, including shifts in customer segments and markets, new data sources, and new AI techniques and tools.

With a value framework that helps them sort through a growing universe of data, and a platform that provides unbanked- and underbanked-focused capabilities, financial services institutions can address the risks and costs that traditionally made this segment unattractive. By doing so, they can move into a largely untapped market that includes millions of potential customers and access a powerful new avenue for growth.

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