

IDC PERSPECTIVE

Pitney Bowes Software: Addressing a Digital Market Need

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EXECUTIVE SNAPSHOT

FIGURE 1

Executive Snapshot: Pitney Bowes Software – Analyst Summit

We recently attended the Pitney Bowes software summit for analysts and came away with a sense that this part of the Pitney Bowes business may have the greatest long-term impact on the company's results as it aligns to a real market need in digital investment — referential integrity. At the heart of this software lineup is 100 years of managing the veracity of customer addresses and the software applications that can be derived from them.

Key Takeaways

- The Pitney Bowes software portfolio revolves around four key capabilities: master data management, location services, customer communication, and data.
- The company discussed its knowledge graph efforts, essentially capturing the relationships between different pieces of location-related data. The Pitney Bowes pbKey provides a referential standard for addresses much like the DUNS number does for entities.
- Pitney also introduced the notion of the Knowledge Fabric, the logical progression of the Knowledge Graph. The Knowledge Fabric is the combination of the Knowledge Graph, software, and data, which provides an ontological reference for location data.

Recommended Actions

- Enterprises should look to providers like Pitney Bowes to automate and continuously improve their capabilities. Referential integrity is a critical element of effectively scaling digital transformation efforts.
- As you build out a digital platform, have a plan for achieving referential integrity for your master data.
- Encourage your platform providers to develop partnerships with these companies or at least provide open integration.
- Most importantly, look for providers that include a vision for providing ontological (a semantic) support, as validating your master data is only part of the effort. Understanding the relationships between the attributes of the data will be necessary for inference and machine learning.

Source: IDC, 2018

SITUATION OVERVIEW

For those of us that have spent time working in industry, Pitney Bowes is a familiar name as a provider of market dominant postage meters and mailing systems. And for those of us that have been covering commerce, Pitney Bowes is also familiar as a company with a robust set of software and services that facilitate cross-border trade. Less familiar is the Pitney Bowes software portfolio that supports all manner of data, customer engagement, and geocentric processes.

We recently attended the Pitney Bowes software summit for analysts and came away with a sense that this third leg of the portfolio may have the greatest long-term impact on the company's results as it aligns to a real market need in digital investment – referential integrity. At the heart of this software line up is 100 years of managing the veracity of customer addresses and the software applications that can be derived from them. These capabilities include:

- **Identify.** The anchor platform of Pitney Bowes' data efforts is the company's Spectrum Technology Platform, which provides data quality, integration, and single view of the customer as well as master data management capabilities. As a modular architecture, the platform relies on graph database functionality and hooks into location intelligence capabilities for its differentiation.
- **Locate.** Pitney Bowes' best known location intelligence application is MapInfo Professional, which recently saw its 17th release. But the company has also made strides this past year around Big Data with its Spectrum for Big Data offering as well as the U.S. launch of its Confirm infrastructure asset management product – a mainstay with U.K. government agencies.
- **Communicate.** Customer data can be combined with outbound marketing to effectively manage blended physical and digital customer engagement campaigns.
- **Data.** Underlying the Pitney Bowes portfolio is its address-centric data sets, which the company has started offering for specific vertical industry requirements through its recently launched Software and Data Marketplace. Pitney Bowes has information on 190 million addresses in the United States alone. In comparison, the USPS has only 160 million. This vast referential data source helps companies validate and extend their customer information.

One of the industries where these products have been widely used is financial services, especially in the process of detecting fraud and mitigating risk for financial crimes and compliance and anti-money laundering efforts. As one might imagine, other industries such as retail, healthcare, and public sector are also using the products. Several case studies were shared at the event that spanned these industries.

The Knowledge Graph

Another interesting concept discussed at the event was what Pitney Bowes executives called the Knowledge Graph. This effort equates to a way to quickly connect data across an enterprise, providing customer insights based on the relationships between various data. Instead of simply managing the taxonomical structure of addresses, people, and location, this undertaking seeks to provide an ontological view that recognizes synonyms and tracks a vast number of attributes related to the data. The pbKey is an essential aspect of the Knowledge Graph, providing the necessary information about each location node in the graph, including associated attributes and reference data. Importantly, Pitney Bowes offers the Knowledge Graph at the center of its customer information management platform that includes data quality, management, analytics, and machine learning. IDC has been advocating

that companies think about this type of view, more commonly known as a semantic graph, of their information as it is a prerequisite to inference; the key component of machine learning.

The Knowledge Fabric

Pitney Bowes also took this opportunity to introduce its Knowledge Fabric to the analyst community for feedback. The Knowledge Fabric isn't a specific product that a customer would buy, but it represents a combination of the Pitney Bowes Knowledge Graph, software, and data products, which embody deep intellectual knowledge and experience in location and identity. This combination is unique and will be a differentiator for Pitney Bowes as it enters the data-as-a-service market with data services and products and software where and when needed to deliver higher value applications in insurance, financial services, retail, telco, and public sector industries.

Pitney took some criticism from a few analysts who saw fabric as a two-dimensional plane, but the data, services, and software that make up the fabric represents a three-dimensional world. As a teenager whose parents owned a fabric store, I can attest to the reality that fabric is only two-dimensional when it is on the cutting table. After that, it can be made into anything and take on a third dimension, either in what it covers or how it is being shaped by the forces around it. Another interesting perspective is that fabric is made up of many strands, not unlike the many addresses that represent locations in our three-dimensional world. The Knowledge Fabric by Pitney Bowes represents a collection of data, information, and software that represents the intellectual property gained through the experience of working with location data for nearly a century.

While there could be criticism of Pitney Bowes being so focused on location intelligence in a time when there is data available for almost everything; Pitney also claims that everything is addressable, and if everything is addressable, then Pitney's claim suggests the company has data about nearly everything.

A Blockchain Future?

One of the interesting conversations we had with Pitney Bowes executives was around blockchain. If you think about the history of Pitney, the foundation of its business revolves around being the trusted intermediary in distributing an application-specific currency, namely postage, to the endpoints of the network. We are not sure if this experience is transferable to all the interest in blockchain, but it is certainly worth exploring.

ADVICE FOR THE TECHNOLOGY BUYER

One of the key characteristics of more digitally mature companies is the deployment of a digital platform. The digital platform becomes the basis for the decision models that line-of-business leadership wants to build to enhance customer experiences, innovate, and drive new levels of productivity from their operating models. The platform also modernizes and integrates existing applications so these new models can be tied to performance reporting.

Critical to the success of these digital platforms is the achievement of referential integrity in major master data areas – suppliers, products, assets, customers, and employees (SPACE). This data must be at least 90% accurate for digital initiatives to be successful. Companies such as Pitney Bowes and Dun & Bradstreet have a long history of validating referential data sets and will be essential in reaching the 90% target.

As you build out a digital platform, have a plan for achieving referential integrity for your master data. Know that this is a continuous process, not an intermittent one. Encourage your platform providers to develop partnerships with these companies or at least provide open integration. Most importantly, look for providers that include a vision for providing ontological (a semantic) support as validating your master data is only part of the effort, understanding the relationships between the attributes of the data will be necessary for inference and machine learning.

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Related Research

- *Data Services for Hybrid Cloud, 2018: End-User Customer Survey* (IDC #US43791718, May 2018)
- *DX Platform: A Framework for Integration and Orchestration Services* (IDC #US43383918, January 2018)
- *Data Integration on the DX Platform* (IDC #US41714417, January 2018)
- *The DX Platform: Rearchitecting for Scale* (IDC #EMEA43147617, October 2017)

Synopsis

This IDC Perspective discusses the Pitney Bowes software summit for analysts. Pitney Bowes recently held an event to discuss recent developments and future plans for their software portfolio.

According to Bob Parker, group vice president, IDC Industry Insights, "Pitney Bowes has positioned its software portfolio as a useful set of tools for digital transformation. The referential integrity of its address data has been long established, and it is moving forward quickly to support better customer engagement, data services, and perhaps even supporting blockchain networks."

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