

SPECIAL SECTION

Best in Data & Analytics

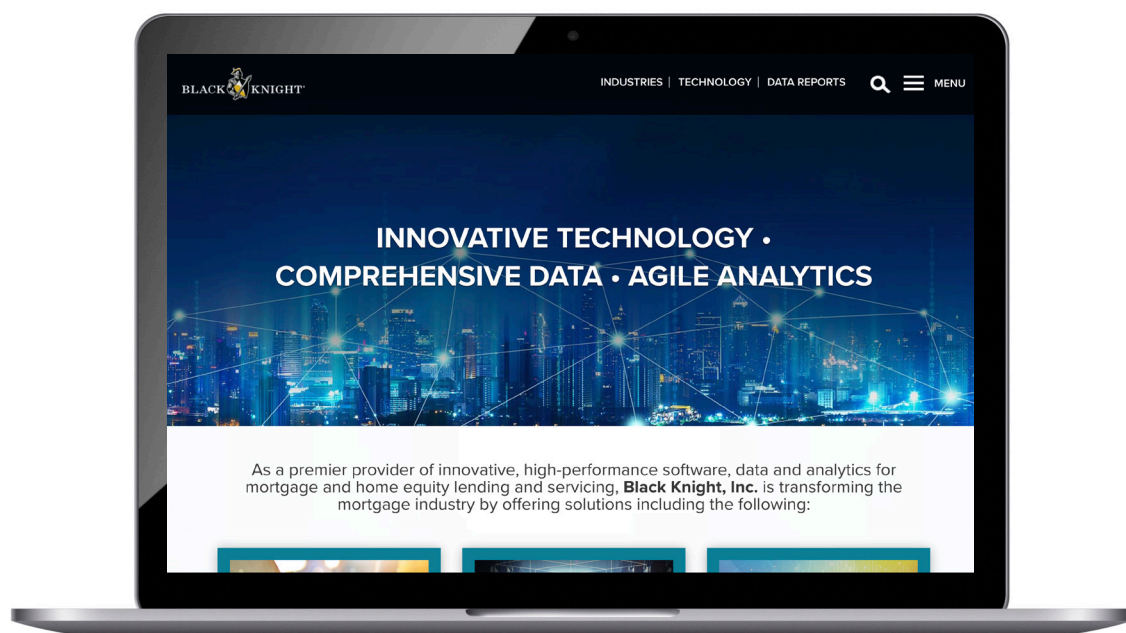
Reliable data and analytics are an important aspect of working and succeeding in a field as fast paced and crucial to the American economy as the mortgage industry. In our special data and analytics guide, we feature the experts who are helping servicers monitor and analyze their business statistics in some seriously powerful ways.

These industry leaders are helping lenders, servicers, and other mortgage professionals predict and model consumer behavior, mitigate risks, and better serve their buyers.

As data and analytics play an increasingly larger role in influencing decision-making, no one is arming mortgage professionals more with the knowledge they need to make important decisions than the companies featured in the following pages. Take a look to find new partners who can take your business to the next level and prepare you for the changing industry landscape.



BEST IN DATA & ANALYTICS



Black Knight

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➔ COMPANY DESCRIPTION

Black Knight, Inc. (NYSE:BKI) is an award-winning software, data, and analytics leader that drives innovation in the mortgage lending, servicing, and real estate industries, as well as the capital and secondary markets. Businesses leverage the company's robust, integrated solutions to help grow and retain customers, mitigate risk, reduce costs, and operate more efficiently.

Black Knight's solutions support the entire real estate and mortgage life cycle. The company's industry-leading data includes property and mortgage loan-level information collected directly from the source, making these data assets the most current and dynamic available. Black Knight offers its data and analytics solutions through a variety of delivery options, including via the leading-edge Rapid Analytics PlatformSM(RAPSM).

➔ BUSINESS LINES, SERVICES & PRODUCTS

Long renowned for its market-leading mortgage and real-estate data, Black Knight changed the game in 2019 with the launch of RAP, a cloud-based data marketplace and decision-science studio. RAP brings together the company's vast data and advanced analytics onto one platform, providing a powerful solution for clients to seamlessly source data and drive analytic workflow.

Developed specifically for users in the mortgage and real-estate industries, RAP offers direct access to an interactive marketplace of diverse data assets and analytics. Users can immediately explore Black Knight data, execute queries, create complex analytics, and train machine-learning models. Clients can also join their own or third-party data with Black Knight's data sets.

To help users get started on the platform, RAP offers a variety of "out-of-the-box" analytics. Clients can also build their own analytic models, or they can leverage Black Knight's highly experienced professionals to develop customized analytics.

Black Knight is continuously enhancing RAP with new data sets and recently added loan-level rate lock data from the company's Secondary Market Technologies division. This rate lock data is the mortgage industry's earliest and most representative measure of lending activity.

RAP is used by industry professionals for numerous applications, including portfolio growth and retention analytics; lien alerts; equity analysis and valuation; prepayment and default analytics; benchmarking; and much more.

To meet a client's specific business needs, Black Knight also offers several other ways to access and consume the company's data and analytics, including FTP, match and append, platform integrations and directly through the SiteX website.*

Property Data

Black Knight's property records database is among the most robust on the market, covering 99.9% of the U.S. population from more than 3,100 counties. Datasets include assignments, releases, tax assessors, deeds, mortgages, pre-foreclosures and foreclosures.

Loan-Level Data

Black Knight's McDashSM provides the most comprehensive mortgage loan-level data in any single source. This extensive repository of servicer-contributed data spans the entire credit spectrum of agency, non-agency and portfolio products, and covers three decades. Black Knight also offers McDash Flash, which tracks forbearance, payment and delinquency data on a daily basis with only a two-day lag—an industry first—enabling clients to perform frequent portfolio analyses.

Black Knight's data assets fuel many of the company's solutions, including:

AFTSM Prepayment and Credit Model

The Black Knight AFT Prepayment and Credit Model combines default, prepayment, loss, and valuation into a single, comprehensive, holistic view of mortgage performance. Leveraging the best of behavioral and statistical model techniques, as well as Black Knight's unique data advantage, the AFT Prepayment and Credit Model not only delivers consistently reliable results, but can also be easily tuned to quickly adapt to market shifts.

Black Knight Home Price Index (HPI)

Built upon Black Knight's proprietary data, Black Knight HPI incorporates decades of sales transactions for analyzing residential real estate market trends and home price changes via a multi-tier, repeat-sales based index, with greater accuracy, coverage, and stability, as well as unmatched granularity.

Black Knight P and D Scores

Black Knight P Score provides clients with a powerful way to identify and rank residential mortgage loan attrition risk in their portfolios. Applying advanced modeling approaches, the P Score delivers early indicators of propensity to refinance and housing turnover to help servicers leverage limited resources for achieving maximum portfolio retention.

Black Knight D-Score provides scores that can be used to risk rank borrowers, helping servicers create timely, efficient, and effective collections strategies to achieve maximum return, while meeting regulatory guidelines.

Unique, Flexible Valuation Solution

The Value Range Express solution is a unique combination of Black Knight's AVM capabilities, new for-sale listing alerts, national MLS active property listings and public record data. The solution delivers single-source access to over 200 fields of data linked together by a single ID to create a flexible valuation solution.

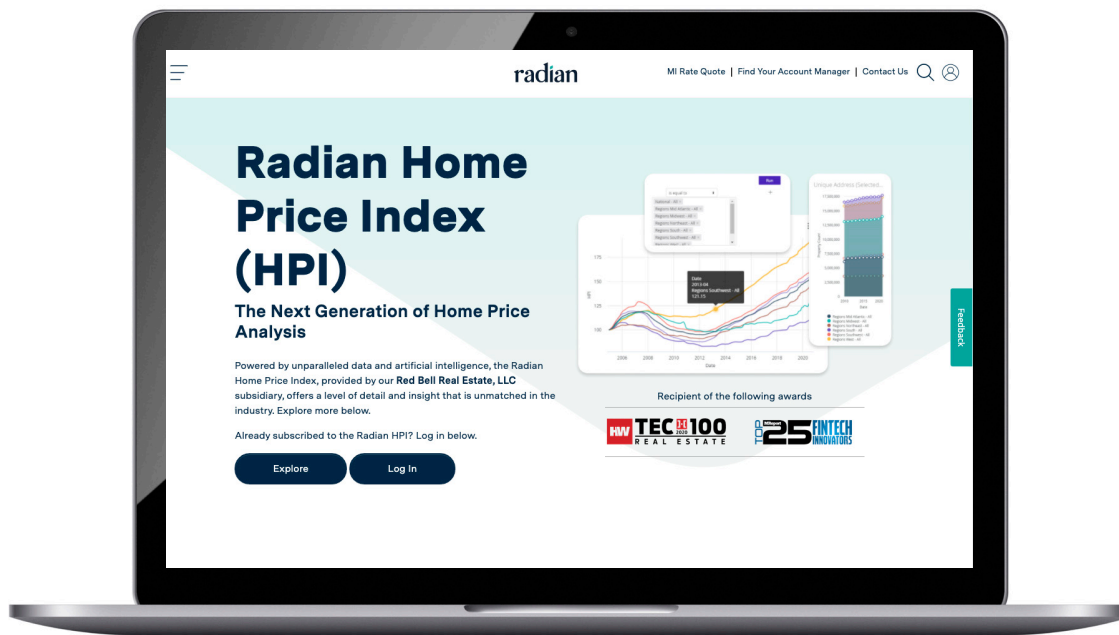
Black Knight's data is also the foundation for many of the other company's leading solutions, including top-rated AVMs, market-tracking indices, due-diligence offerings, behavior models, and much more. Additionally, the company offers commercial property data that delivers a nationwide, comprehensive view of commercial properties in a single source.

**Delivery method varies by specific solution.*





BEST IN DATA & ANALYTICS



Radian Home Price Index, provided by Red Bell Real Estate, LLC

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END-USER CATEGORIES

Lender/Service
Agent/Broker

COMPANY DESCRIPTION

Radian is ensuring the American Dream of homeownership responsibly and sustainably through products and services that include industry-leading mortgage insurance and a comprehensive suite of mortgage, risk, title, valuation, asset management, and other real estate services. They are powered by technology, informed by data, and driven to deliver new and better

ways to transact and manage risk. Visit Radian.com to learn more about how Radian is shaping the future of mortgage and real estate services.

BUSINESS LINES, SERVICES & PRODUCTS

99% of homes in the U.S. aren't transacted each month, so why rely on an index that measures only those that do? The Radian Home Price Index (HPI), provided by the company's **Red Bell Real Estate, LLC**, subsidiary, represents the next generation in housing market intelligence. Leveraging a wealth of data and property valuation expertise—the Radian HPI offers a truly unique view on patterns and trends in the U.S. housing market.

COMPETITIVE ADVANTAGE:

Powered by unparalleled data and artificial intelligence, the Radian HPI offers a level of detail and insight that is unmatched in the industry. Fueled by nearly 90 million property observations, the Radian HPI uses a host of variables and dimensions to provide a unique view on patterns and trends across the U.S. housing market.

In contrast, repeat-sales methods, the market's most widely publicized indices, are limited to observations of

completed transactions on properties transacting two or more times. With an average of less than 400,000 unique observations per month, creating granular repeat-sales indices is more difficult, less stable, and requires substantial revisions over time.

In median sales price models, which are also based on only transacted properties, these models do not account for any change in composition of home sales or property condition.

As a result, interpretation of both repeat sales and median indices is challenging, rendering their value limited.

ADDED VALUE

The Radian HPI (Radian.com/hpi) offers a complimentary data visualization on its website to showcase the power that the Radian HPI offers. Through this interactive

experience, users can get insight into all the Radian HPI can do for them. From there, users can gain access to the full Radian HPI data set through the client access portal.

This self-service platform contains a library of thousands of high-value indices based on geographic dimensions and property attributes. The platform offers monthly updated access to nine different geographic dimensions and can get as granular as the ZIP code level. In addition, Radian HPI provides unique insights across multiple property attributes, including bedroom count and square footage.

In creating more than 100,000 unique indices each month, the Radian HPI is more comprehensive in its granularity—allowing for micro-market real estate information that other indices cannot provide. The benefits of this modern approach includes:

- **Speed to Market:** Results are available weeks earlier than other indices and can be provided just days after month's end.
- **Advanced Methods:** Uses artificial intelligence and machine learning to empower the best results.
- **Custom Indices:** Creates highly specific indices by using the broadest set of attributes and dimensions.
- **Complete View:** Provides valuations data on the U.S. housing stock rather than sales pairs or sample populations.

ACCOLADES:

The Radian Home Price Index is a recipient of the 2020 *HousingWire* Tech100 Real Estate award. In addition, the Radian Home Price Index has been recognized in *MReport's* list of the Top 25 FinTech Innovators.

**Red Bell Real Estate, LLC and its wholly owned subsidiaries hold real estate licenses in every state and the District of Columbia. Corporate headquarters are located at 7730 S. Union Park Ave., Suite 400, Midvale, UT 84047. Contact Jeff Jonas, real estate broker, 877.500.1415.*

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