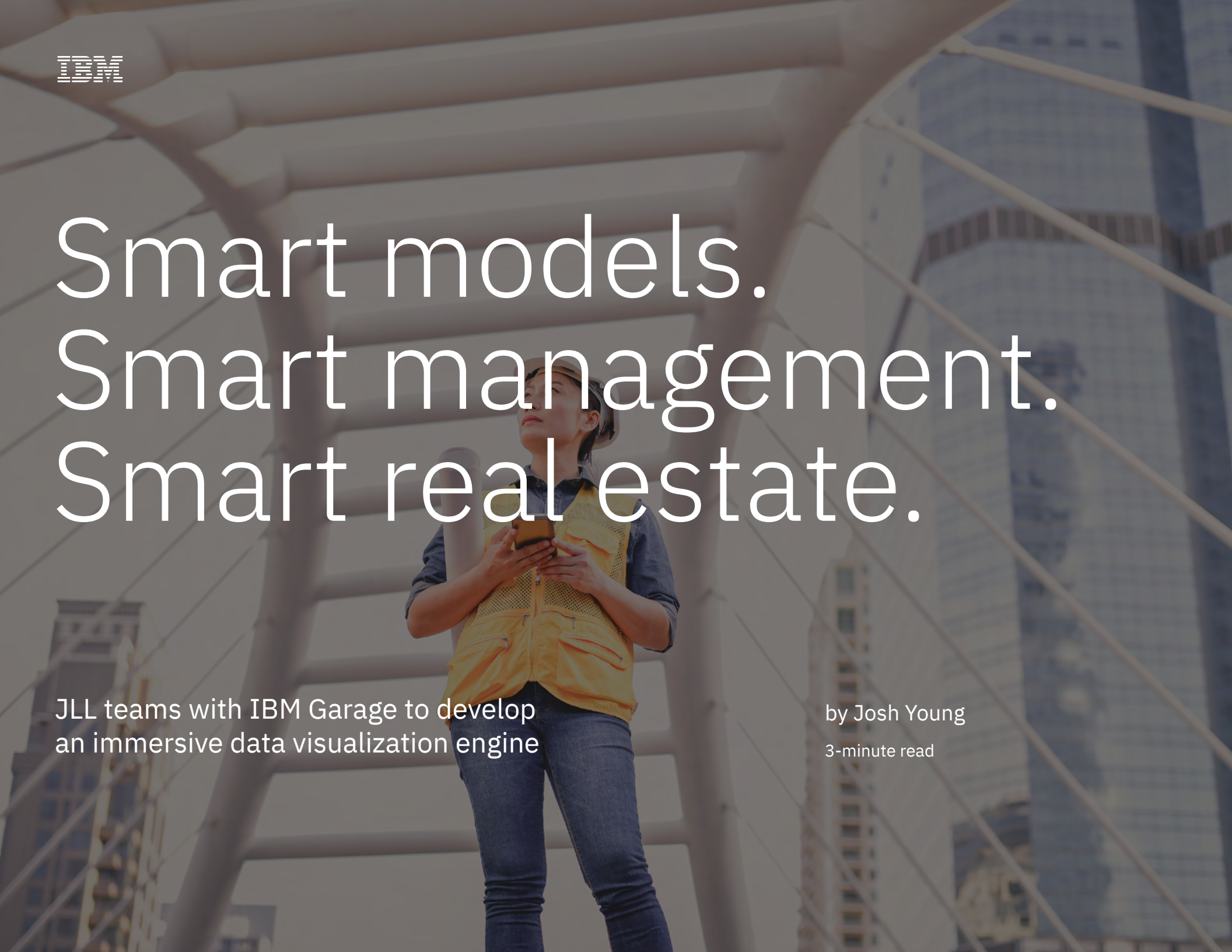


Smart models. Smart management. Smart real estate.

JLL teams with IBM Garage to develop an immersive data visualization engine

by Josh Young

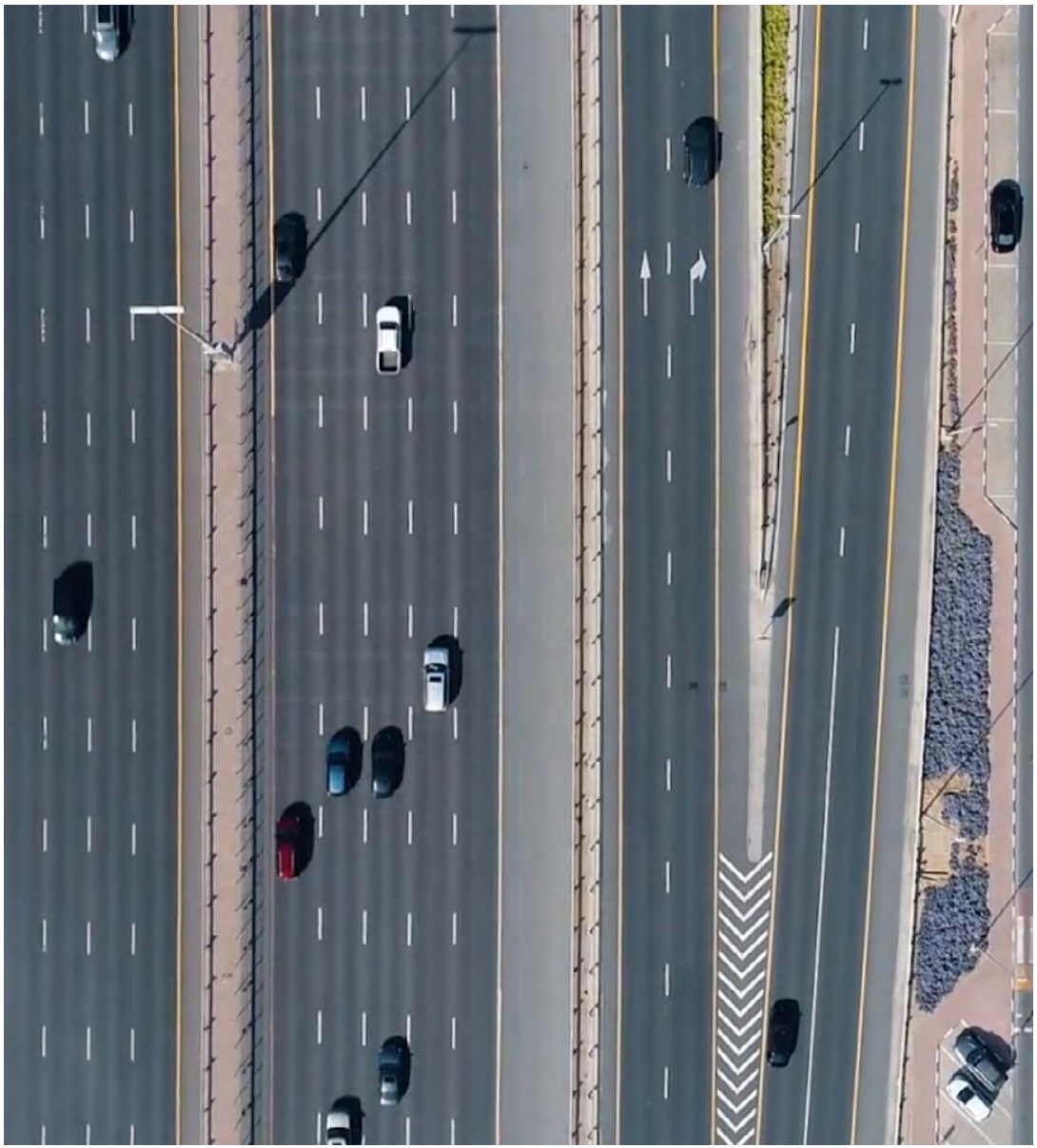
3-minute read

Imagine several million square meters.

It's not exactly easy. When numbers and sizes grow that large, it's difficult to envision them with any real precision. Details become fuzzy and accuracy quickly fades. But that was the challenge facing Jones Lang LaSalle IP, Inc. (JLL)—or more specifically, one of its customers.

Roughly a decade ago, a large developer in the Middle East undertook a major citywide development campaign that involved the revitalization of several million square meters of usable space. However, outside economic factors forced the city to pause this project, and now, years later, it reached out to JLL for support.

"The customer didn't have the ability to create a moment in time to understand



precisely where their developments were and the performance of their existing assets," explains Ben Jackson, Head of Project and Development Services at JLL Middle East and North Africa (MENA). "Their data was at different sites and in different systems. And in the time it took them to pull all of this information together into a single report, it was already outdated.

"It also become extremely apparent that the amount of time and energy that was spent in producing monthly status reports was extremely onerous. They also struggled to effectively communicate the status of their development or portfolio, even though the efforts that went into collating the data were considerable."

To help its customer create a baseline of current developments, JLL used lidar technology to map out the entire city, building a 3D model—or "digital twin"—that could digitally represent the physical state of the sites. At the same time, JLL combined this digital twin with real-time data streams from the company's previously siloed real estate management applications. JLL then integrated the operational technology systems to create a unique, 3D ecosystem that lets users consume data instantly to derive actionable, better-optimized decisions.

In the midst of this major project, JLL realized that it had a much larger opportunity in front of it.

"We had an epiphany on how this could change the way our industry works," adds Jackson. "We could use this model to change how real estate firms manage and store data. How they execute tasks. We could build something that would offer them the insight to optimize and create more efficiency in their portfolios."

And when you're looking to revolutionize an industry, it often helps to have a strong partner.

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Ben Jackson, Head of Project and Development Services, JLL Middle East and North Africa (MENA)

Reimagining real estate management

“We started to think, ‘OK, we understand what we want the solution to look like,’” continues Jackson. “But how do we actually start managing and organizing that data? How do we create a platform that can speak to the needs of all of our end users—be it asset managers, be it occupiers, be it developers, potential investors, financial institutions?”

To help transition from concept to reality, JLL chose to work with the IBM NextGen Ecosystem team. Together, JLL with IBM technologists mapped out the target audience for this new solution, as well as the core benefits for each stage of the tool.

"We also worked with the IBM Garage team," adds Jackson. "From those discussions with IBM experts, we began to think a lot more about data—how it's structured, how it works, how it's reflected. How we can turn that data into information, into insights and ultimately into action." Following the agile, user-centered IBM Garage™ Methodology, JLL built a minimum viable product (MVP) to bring to market.

The new Prism solution acts as an incredibly sophisticated digital twin platform, delivering an end-to-end real estate data aggregator and visualization engine that pulls data from multiple technology sources. The platform provides virtual, 3D representations of building and operational sites and allows users to choose from customizable modules that pull real-time data streams for key functions—such as development monitoring, cost management, leasing, energy management, auditing, maintenance—at these sites. And with this information in hand, users can then map these real-world metrics against projected targets to track performance.

One use example would be a global asset manager that could use Prism to examine real-time micro- or macro-leasing and rental data at multiple levels—floor, building, city, country—from all of its locations, gaining clearer insight into the current percentage of occupancy and associated return on investment (ROI). The firm could then access the JLL data environment to create context for its assets to understand the market dynamics and gather insights into optimizing the performance of its portfolios. With the data provided, the business could also cross-reference energy consumption, maintenance performance and movement data from Internet of Things (IoT) systems to give multiple perspectives and create immediate insights that would help optimize asset performance.

To streamline deployment for Prism, JLL signed an IBM® Embedded Solution Agreement (ESA) that the business uses to incorporate IBM technology directly into its offering. The MVP is hosted on IBM Cloud®, but Prism is platform agnostic and can be deployed in other cloud instances or on-premises configurations.

You can’t get faster than real time

With its MVP solution in hand, JLL is confident in the value that Prism will deliver to users. With real-time, standardized data available, property owners will have greater insight into the health and status of their sites. And this single source of truth, coupled with the 3D building models, encourages simplified management and planning processes for managed locations.

Further, joining this common data format along with the cognitive analytics capabilities offered by Prism will empower users to better optimize building and real estate portfolio performance, leading to reduced costs

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and increasing the overall return on real estate investments.

"In many ways, the real estate management and construction industries are archaic when it comes to technology, lagging behind other industries like manufacturing or engineering," explains Jackson. "It's incredible that we can now offer to our customers this level of foresight into the present and the future."

Further, JLL is pleased with the level of cooperation and support that it received from the Next Generation Ecosystem and IBM Garage.

"IBM's role was very significant in helping us make this project happen," explains Jackson. "When you've been thinking about a product like this for a long time, you obviously have preconceptions of how it will work. IBM helped us look at things from an objective point of view, and the clarity of thinking that offered really helped us develop the product and got us to where we are today."

Beyond choosing the right partner, hosting Prism on IBM Cloud offered a heightened level of scalability and flexibility. "We made Prism vertically agnostic," adds Jackson. "You can use it on one building or for a global real estate portfolio—we can adapt to any size. And as an early mover in this space, we have a lot of potential to grow quickly. Having the right technology in place means that we'll be able to do that seamlessly."

About Jones Lang LaSalle IP, Inc. (JLL)

IBM Business Partner JLL (external link) is an international real estate services organization that covers tasks as basic as janitorial support and as complex as multibillion-dollar property portfolio management. The firm is headquartered in Chicago, Illinois and maintains offices in over 80 countries across the globe.

Solution components

- IBM Cloud®
- IBM Garage™

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