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Green Quadrant: Workplace Systems Integrators 2021

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SMART BUILDINGS

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This report provides a detailed, fact-based comparison of the 13 most prominent workplace systems integrators available on the market today. Based on the proprietary Verdantix Green Quadrant methodology, the analysis brings together extensive debriefs with practice leaders at each service provider, their responses to a 92-point questionnaire and data from a survey of 250 real estate decision-makers. The analysis finds that the leaders in the market are offering comprehensive systems integration services that enable their customers to get value from multiple technologies, including IWMS, workplace mobile apps and IoT technologies. The evaluation of vendor capabilities and market momentum reveals three firms — Accenture, Deloitte and JLL — currently lead the market, whilst other providers have strong capabilities in specific areas, such as access control, cloud collaboration platforms and IoT. Corporate real estate executives and landlords should use this report to help them select the best-fit systems implementor for their next workplace technology project.

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ORGANIZATIONS MENTIONED

ABB, Accenture, Accruent, Acuity Brands, Adobe, Amazon, AMS Workplace Technology, Apple, AREMIS, Aruba, Atos, Avaya, Beco, BlackRock, BNP Paribus, BRG, Brivo, Building Owners and Managers Association (BOMA), Canadian Department of National Defence, Capgemini, CBRE, Chargifi, CIA, Cisco, City of Dallas, City of Hamilton, Cognizant, Condeco, CoStar, CoWorkr, Cree, Creston, Cushman & Wakefield, CX App, DataVision, Dell, Deloitte, Department of Veteran Affairs, eCIFM Solutions, eFM, EMS Software, Energisme, enOcean, EY, Fifth Wall, Flextronics, FM:Systems, Fujitsu, Gares & Connexions, GCP, GE, Generali France, Geniatech, Google, Hella, Hepta Systems, Hitachi, Honeywell, Horizant, HqO, HSBC, IBM Services, IBM, Infosys, International Facility Management Association (IFMA), iOFFICE, JLL Spark, JLL Technology, JLL, JLL's Corrigo, Kimberly-Clark, KPMG, L'Oréal USA, LeaseQuery, Leica, Lockitron, Lucid, Manhattan Real Estate and Workplace Solutions, MCS Solutions, Microsoft, Modcam, Modo Labs, Molex, MRI Software, MRI Software's Trimble Manhattan, MTI Technology, NASA, Natural Resources Canada, Nemetschek Group, Newmark, Northwestern University, Nuvolo, Openpath, Oracle, Planon, PointGrab, PointGuard, ProLease, Proxyclick, PTC, PwC, Relogix, Renom Energy, Ricoh, Rise Buildings, Robin, RSA Security, Sacramento County, Salesforce, SAP, Schneider Electric, Securitas, ServiceNow, Siemens' Comfy, Siemens, Sigfox, SimplicITy, SNCF, Sodexo, SpaceIQ, SpaceIQ's Archibus, Spacewell, Spica Technologies, St. Joseph's Health Care, Stanford University, Starbucks, Suncor Energy, Tango, Tata Consultancy Services, The Clarient Group, Traction Guest, University of Pennsylvania, US Federal Reserve Bank, US General Services Administration (GSA), ValuD, Vanti, VergeSense, Verizon, Vpod, VTS, Wavin, Workplace from Facebook, World Bank, Yanzi, Yardi, Zoom, Zurich Insurance.

The State Of The Market For Workplace Systems Integrators

Building occupiers and landlords engage workplace systems integrators (WSI) to help them deploy technology solutions that aid workplace productivity, employee engagement and building efficiency. Demand for workplace systems integration has been continuing to grow over the past three years, as firms run programmes to upgrade the office experience and make workplaces more agile to enable space consolidation.

This report provides the individuals responsible for selecting, implementing and getting value from workplace technology with a detailed benchmark to help them select the provider best suited to meet their needs. It analyses the workplace systems integrator's ability to deliver IT and business consulting, systems integration and support services across six distinct technology categories: 1) access control, 2) Internet of Things (IoT) platforms, 3) workplace management software applications, 4) employee apps, 5) building operations and 6) workplace IT operations. The research for this report answers specific supplier selection questions, centred around:

- Which providers lead the market for IT and business consulting capabilities for workplace systems?
- Which providers lead the market for systems implementation services?
- Which providers have the strongest momentum in the market for workplace systems integration?
- Which providers have the systems integration services that best align with our needs?

To answer these questions, Verdantix analysed 13 workplace systems integrators using a 92-point questionnaire and conducted detailed briefings with participating service firms. We also leveraged insights from the Verdantix 2020 global survey of 250 corporate real estate and facility management executives, with specific questions on their investment plans and selection criteria for workplace systems integrators. The resulting analysis is based on the proprietary Verdantix Green Quadrant methodology that was designed to provide an evidence-based, objective assessment of suppliers providing comparable products or services.

Workplace Systems Integration Is Becoming Increasingly Complex With The Rise Of IoT And Workplace Apps

The workplace management systems integration market began in the 1970s as firms started to adopt specialist IT systems for managing floor plans and space planning processes, such computer-aided design (CAD) software applications. The market then expanded in the 1990s with the rise of broader computer-aided facility management (CAFM) and integrated workplace management system (IWMS) platforms, which required firms to engage specialist consultants to develop software code, maintain the software and form integrations to other enterprise systems. Since the turn of the 2010s, workplace systems integration has become increasingly complex with the rise of IoT devices, workplace apps and connected equipment. Service providers have therefore expanded their capabilities to work across a broader range of areas such as smart access control, mobile apps and the deployment of point solutions (see **Figure 1**). The next three years will be shaped by:

- **Hybrid working practices accelerating interest in digital office solutions.**
  Over the next three years, 84% of firms are making the transition to agile workplaces a major priority, enabling the more efficient use of space (see Verdantix The New Digitization Agenda For Smart Buildings During COVID-19). As firms move towards new ways of working, they are implementing new digital tools that aid the management of flexible workspaces and bridge the gap between the physical and digital worlds. For example, KPMG is currently upgrading its London Canary Wharf office with digital whiteboards in meeting rooms and space monitoring data analytics. Zurich Insurance is implementing the Spica Technologies workplace experience app at its new Quai Zurich Campus global headquarters to improve the employee experience.

- **Space reduction programmes fuelling IoT-enabled workplace technology deployments.**
  As firms replan their workplaces and make them increasingly agile, they will continue to invest in workplace management software applications that support space planning and redesigning processes. Firms regularly engage systems integrators to support these deployments, from creating and quality checking CAD or 3D floor plans, to integrating space management systems with human resources (HR) platforms. In the next five years, firms will increasingly integrate space management software applications with data sources such as badge swipe systems and IoT sensors that aid the capture and analysis of real-time space utilization data. Leveraging these data sources in software tools can provide rich operational insights.

- **Increasingly complex workplace technology ecosystems.**
  While IWMS platforms were once the focal point of systems integration work for many vendors in this market, workplace systems integrators are extending their partnerships with non-IWMS firms. Accenture, for example, partners with Robin and Traction Guest; Atos with Siemens' Comfy; and Ricoh with PointGrab and VergeSense. Systems integrators will continue to expand their range of partnerships with such specialist vendors to bring innovative solutions to their customers.

- **Growing ecosystems of IoT devices for smart buildings.**
  The IoT promises the next stage in the evolution of building optimization by providing facility managers with increasingly granular data and insights on asset condition and building operations (see Verdantix Market Overview: Identifying The Tangible Opportunities From The IoT In Buildings). To enable the IoT in buildings, firms are engaging systems integrators to deploy data capture technologies, gateways and IoT platforms for data capture and analysis. For example, IT consulting firm Tata Consultancy Services (TCS) offers services to centralize data from a myriad of building systems, meters and sensors, then transmit the data to its analysis platforms on the cloud.

- **Further market consolidation following a flurry of strategic acquisitions by incumbents.**
  Over the past 10 years, service providers have been enhancing their workplace systems integration capabilities and increasing their market share through strategic acquisitions. For example, JLL acquired workplace technology integration firm BRG in 2016, and subsequently acquired ValuD, an integrator of IBM's TRIRIGA, Maximo and Watson IoT, in 2018. Ricoh has also made a series of strategic acquisitions, including managed IT services firm MTI Technology, and audio visual (AV) systems integrator DataVision. Verdantix anticipates that further market consolidation is on the horizon as larger players scramble to enhance their capabilities to keep up with customer expectations around workplace transformation.

FIGURE 1

Market Landscape Development – Historic And Present

		Pre-2010	2010-2020	2020-2023
Supplier	Supplier landscape	Regional IT systems integrators develop workplace systems integration offerings	Global accounting, IT services and real estate consulting firms establish workplace systems integration practices	Increasingly competitive landscape as facilities services firms launch technology services divisions
	Service focus	Implementation and maintenance services for CAD, CAFM and IWMS, including software development and integration to enterprise systems	Expansion of services to workplace apps, digital kiosks, IoT platforms and smart access control Integration of software with sensors and smart building devices	Growing focus on the deployment of specialist mobile apps and IoT projects that unlock new areas of value across employee experience and hybrid working
	Value proposition	Digitize space planning and management processes Simplify the collection and reporting of real estate and facilities management data	Improve the employee experience of offices and efficiency of buildings Support the transition of workplaces to agile and hot-desking environments	Improve the employee experience of hybrid workplaces and distributed offices
Customer	Workplace IT strategy	Set up on-premise or cloud-hosted IWMS and CAFM systems	Enhance employee-facing technologies including room booking systems and workplace apps Centralize data across facilities, finance and real estate to unlock valuable insights	Centralize data collection from multiple departments to make buildings operations more adaptable and resilient
	Purchase drivers	Manage the collection and reporting of real estate and facilities management data	Improve the occupant experience at agile offices and flagship sites to support talent retention objectives	Leverage real estate software to provide staff with services that enable hybrid working
	Buying roles	Facilities and real estate executives, IT executives	Facilities and real estate executives, IT executives, space planners Cross-departmental buying decisions	Increasing influence of HR, workplace experience executives and the C-suite

Source: Verdantix

Customers Have Expanding Choice In A Growing Workplace Systems Integration Market

Over the next three years, the workplace systems integration market will be shaped by the rise of hybrid workplace strategies and the increasing complexity of the workplace technology ecosystem. The market will also be shaped by the growing range of vendors seeking to compete in this market with consulting firms, and specialist and IT systems integrators all looking to play a part. Verdantix divides the vendor landscape into five key segments:

- **Integrated real estate services firms with systems integration capabilities.**
  Large real estate services firms continue to build out their technology capabilities to enhance internal operations and offer new client services. Since the early 2010s, JLL has developed in-house expertise on workplace services integration projects and built out their capabilities throughout the decade. Today it employs over 1,800 dedicated staff, and works alongside JLL Spark, the firm's investment fund, to identify, implement and develop best practices from innovative software solutions. Similarly, Cushman & Wakefield offer technology integration services alongside their brokerage and facility management capabilities. Cushman & Wakefield also partners with venture capital firm Fifth Wall to invest in innovative proptech software solutions and, where applicable, advise their clients on products to test trial.

- **Global consulting firms with broad capabilities across real estate and business operations.**
  Firms such as Deloitte, EY and KPMG have also been extending their consulting services to cover workplace technology projects, including IWMS solutions, IoT and digital twin platforms, and workplace experience apps. In addition, such firms also offer comprehensive advisory services, such as projects that cover workplace transformation strategies, tech stack design and change management. Crucially, these consulting firms differentiate themselves on their ability to offer services that deliver real estate projects within a broader organizational context, drawing on their experience dealing with multiple departments within their clients' firms, rather than simply focusing on real estate.

- **Specialist systems integration firms with a regional footprint.**
  Within the workplace systems integration market, some players focus their services on specific countries or regions. AMS, eCIFM, and Horizant, for example, have the bulk of their offices and customer deployments in the US and Canada. eFM's core operations have been based around its offices in Milan, Rome and Munich in Europe. AREMIS has four offices, in Belgium, France, Luxembourg and Switzerland. Although these firms can support global deployments, their specialism in regional projects provides customers with local knowledge and staff on the ground.

- **IT services firms that have built out a real estate capability.**
  Firms such as Accenture, Atos, Cognizant, IBM Services and Ricoh have strong heritages in creating and maintaining business information technology systems. Over the past two decades, they have been enhancing their domain knowledge and deployment expertise in real estate software solutions. Ricoh, for example, has traditionally had a strong offering in print management services, but has been dedicating more resources to workplace software integration whilst also making strategic acquisitions, such as purchasing AV and workplace integrator DataVision and workplace managed services provider SimplicITy in 2020.

- **Software vendors offering internal implementation services.**
Although not in scope for this benchmark, the majority of real estate and workplace software vendors offer in-house implementation services for their own products. Some examples of this are Planon and Manhattan Real Estate and Workplace Solutions (a subsidiary of MRI Software), which both have large in-house teams that can cover a deployment from end to end should a client request this. Verdantix heard from an IT systems manager in the UK that Planon's in-house deployment capabilities were one of the key reasons they selected Planon's platform for deployment as it reduced the complexity of the implementation project.

Customers Need To Watch Out For Variation In Service Provider Strategies

The workplace systems integration market is becoming increasingly competitive with real estate consultants, global IT services firms and the 'Big Four' accounting firms coming head-to-head for the large deals. Reflecting on the different backgrounds and strategies of these firms, customers should be aware that providers offer:

- **Different depths of business consulting and change management capabilities.**
While most workplace systems integrators will offer some level of consulting capability to help firms design the technology architecture, we found that only a subset of the vendor landscape offers comprehensive business and IT consulting services. For example, Accenture, Deloitte, JLL and KPMG offer strong business consulting services for requirements gathering and vendor selection; technology business case development; business process design and improvement; organizational change management and governance. Customers should determine early on whether they require a single vendor to deliver end-to-end consulting and implementation services, or whether they are happy to engage multiple expert providers.

- **Various models for engaging with subcontractors.**
Customers should expect some level of subcontracting to occur when selecting a workplace systems integrator, particularly on multi-site and multi-solution deployments. Even if 5% of the total workload is outsourced, this could represent an important function to the overall project, such as the design of 2D or 3D maps. Some providers, such as Cushman & Wakefield, can opt to outsource as much as 70% of their deployment activities to expand geographic reach and capability as they play more of a project manager role. Customers should ask potential vendors direct questions on how systems integrators intend to use outsourcing by technology and region.

- **Diverse methodologies for implementing software solutions.**
Providers with more extensive consulting and implementation services often follow an established methodology. For example, when deploying IWMS platforms, both Deloitte and JLL use a well-tested implementation framework (such as the 'hybrid-agile methodology'), which involves a multi-stage deployment process with key milestones: mobilize, analyse, execute, validate, deploy and support. This is an approach based on a software development life cycle model and is designed to reduce the risk of project delay and to maximize customer satisfaction. Horizant often starts customer engagements with a round of IT consulting on requirements and business case development. Horizant's role is to refine the deployment roadmap and then implement the software solution as fast as possible. Using this approach, it has had significant success with North American public sector organizations.

- **Distinct models of partnerships with workplace management software vendors.**
  Most workplace systems integrators do not offer truly independent services; instead, they often partner with a select number of workplace software vendors. This approach means that they can become experts in specific solutions, helping them to apply a standard methodology for deployment, improving time and cost efficiencies. Workplace systems integrators often have in place a range of nearly exclusive partnerships such as those between AMS and FM:Systems, eCIFM and IBM, Horizant and SpaceIQ's Archibus, or KPMG and Planon. Another feature of the market is for service providers to have multiple partnerships in place, such as JLL partnering with SpaceIQ's Archibus, FM:Systems, IBM TRIRIGA and iOFFICE. Customers looking for truly independent advice to start their search for a new technology solution could also consider engaging a master systems integrator (MSI) with no formal technology partnerships in place such as The Clarient Group, Hepta Systems and Vanti.

- **Divergent levels of real estate industry knowledge.**
  Real estate and workplace subject matter expertise is one of the key criteria for customers selecting systems integrators. This is especially relevant, for example, for systems integration projects based on centralizing building asset management into software systems, given the myriad of protocols such as BACnet and Modbus for enabling communication between devices (such as a BMS and lighting system). We asked the workplace systems integrators about their levels of experience in the real estate and technology sector; their responses ranged from a team average of 5 years to 15 years.

- **Various breadths of internally developed products to complement third-party systems.**
  eCIFM offers its own mobile app service On The Go! which customizes features of IBM TRIRIGA for field work engineers. JLL also launched its own workplace mobile app (JLL Jet), which leverages multiple integrations to support staff members in scheduling meetings, finding amenities and connecting with colleagues. Ricoh offers its RICOH Spaces platform for workplace management processes, such as space reservations, as a standalone product that can operate independently of third-party solutions. Cognizant offers its 1Facility platform for multiple smart building processes, such as video analytics, space reservations and parking management.

Real Estate Executives Engage Workplace Systems Integrators To Enhance The Workplace Experience

To better understand the perspective of customers of workplace systems integration services, Verdantix interviewed a panel of independent real estate decision-makers and industry veterans. We asked these individuals to explain the common purchase drivers for workplace systems integration projects and overall experience in engaging with vendors. We also leveraged data from our 2020 global corporate survey of 250 corporate facilities and real estate executives to gain insights into purchasing priorities and purchase criteria for workplace systems integration projects.

Workplace Strategies Focus On Talent Attraction And Enhancing The Agile Office Experience

To better understand real estate and facilities executives' strategic priorities shaping their requirements for workplace systems integration projects, Verdantix asked our global interview panel to identify their major objectives over the next three years. Facility executives are looking to:

- **Improve occupant wellbeing and talent attraction.**
  Over the past three years, occupant wellbeing has come to the forefront of the real estate agenda as the link between wellbeing and talent attraction becomes more apparent (see **Figure 2**). In the 2020 Verdantix survey, 37% of real estate executives rate attracting and retaining talent as their top objective, and 13% of firms rate it as their second priority over the next three years. In sectors with talent shortages, firms are investing in high-quality office spaces in sought-after locations. For example, L'Oréal USA designed its new headquarters in Hudson Yards, New York, to meet the growing interest amongst its employees for more digitally connected offices with spaces that enable collaboration.

- **Enable hot-desking and hybrid working across their portfolio.**
  A rising number of firms are adopting hybrid working programmes to meet the changing demands of employees and support space reduction goals. In the Verdantix 2020 Global Corporate Survey, 84% of firms selected increasing the amount of agile working as a priority over the next three years. As firms create flexible workplaces where staff do not have fixed desks and are only in the office a few days per week, legacy space and room booking systems are often unable to handle the new complexities of desk sharing. Firms need to update their processes and space scheduling tools to 1) align employee in-office time and 2) ensure that office attendance is evenly spread throughout the week.

- **Drive space rationalization further following COVID-19.**
  While 63% of firms are planning to keep their portfolio the same after COVID-19, 18% of firms are planning to reduce the size of their portfolio relative to workers (see Verdantix COVID-19 Supercharges Workplace Transformation). For example, HSBC announced that it will leverage hybrid working to cut its real estate footprint by 40%. Similarly, Fujitsu in Japan announced in 2020 it will transition to hybrid working to reduce its current office space to about 50% of current levels. As firms expand their agile working strategies, they will need to make sure their staff mobile apps are equipped with tools that support agile working.

FIGURE 2

Source: Verdantix Global Corporate Survey 2020: Smart Building Technology, Budgets, Priorities & Preferences

N=250

Workplace Apps And BMS Are Focal Points For Systems Integration Services

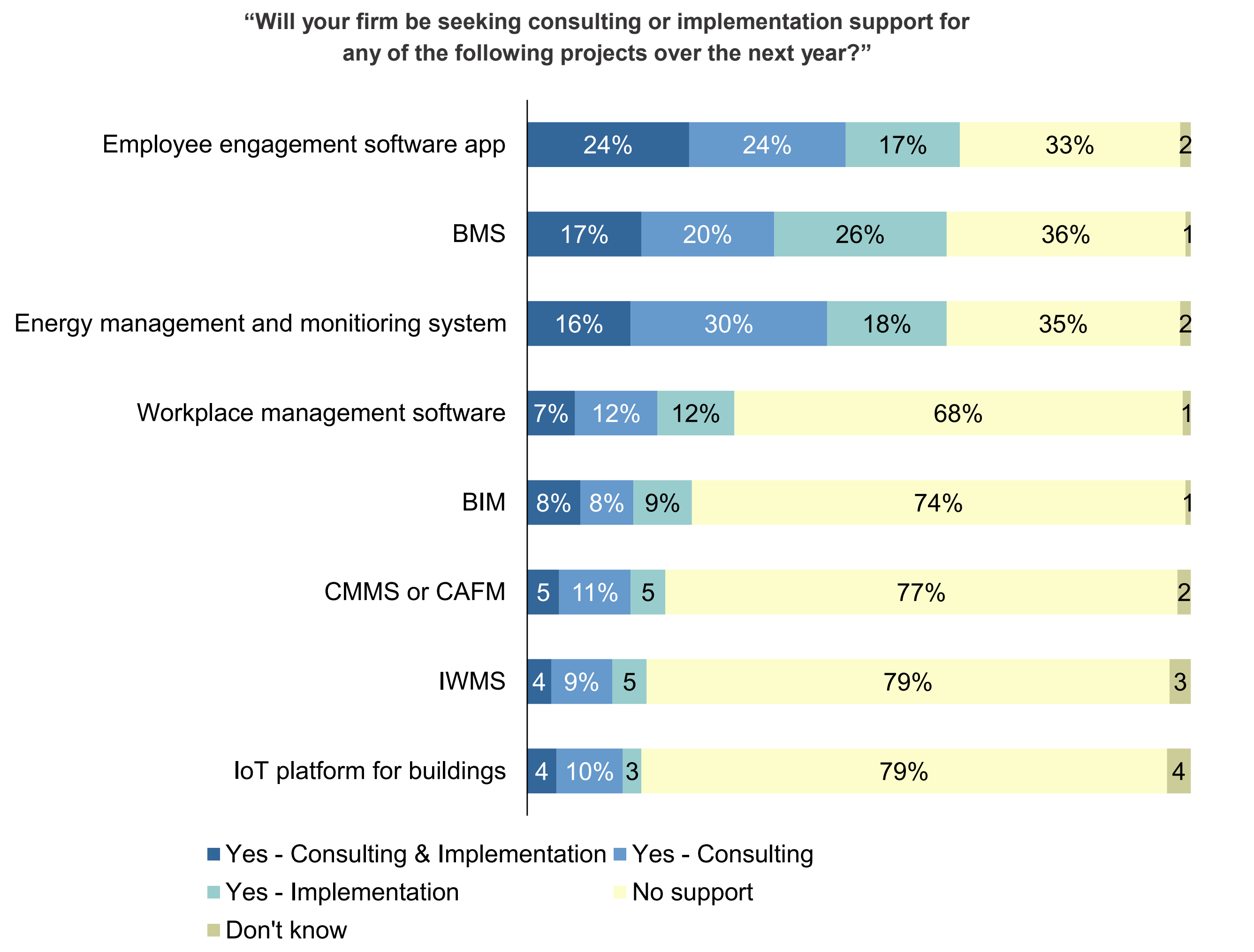
The major priorities for real estate executives over the next three years include improving occupant experience, enabling agile working and driving space rationalization further. What are the specific systems integration projects that firms are prioritizing for investment over the next year? The survey reveals that:

- **Employee apps have the highest purchase consideration for systems integration.** Over half of the respondents (65%) said that they will either be using both consulting and implementation services, or one of these services, to deliver employee engagement software apps (see **Figure 3**). Firms are engaging consultants to help gather requirements from internal stakeholders, such as facilities, HR and IT. Firms are integrating workplace apps with existing business platforms, such as HR and service desk software applications, to provide users with rich functionality from a single interface (see Verdantix Strategic Focus: Using Mobile Apps To Bring A Digital Experience To The Workplace).

- **Integration services for BMS and energy systems will also see strong growth.** According to 250 interviewees, 46% of firms will invest in implementation services for energy management software solutions, and 37% will require implementation services for BMS. Effectively managing BMS and energy consumption systems has far reaching impacts on an organization's operational efficiency and indoor air quality. Firms are implementing energy management software solutions from ABB, Energisme and PointGuard that will help them gather increasingly rich data on asset performance to identify efficiency opportunities.

FIGURE 3

Workplace Systems Integration Demand By Technology In 2021



Source: Verdantix Global Corporate Survey 2020: Smart Building Technology, Budgets, Priorities & Preferences

N=250

- **Customers seek systems integration services for IWMS and specialist platforms.** Nearly one-third of firms are seeking consulting and systems integration services for specialist workplace management software solutions, and 18% of firms will engage these services for an IWMS platforms. This spend is being driven by firms looking to track increasingly granular data on space usage to inform real estate planning decisions. Firms are rolling out IWMS platforms from vendors such as Accruent, IBM, MRI Software, Nuvolo, Planon, Spacewell and Tango to enhance their tracking and reporting of lease data.

- **IoT projects and their related services are still in their infancy.** Demand for IoT projects is more likely to be in the advisory stage (10%) than the implementation stage (3%). As service providers and customers have told us, the current price of occupancy sensors often prohibits their deployment beyond a headquarters. It will take time before such devices and the operational insights they can deliver (such as seat-by-seat hourly utilization rates) become more widespread.

Customers Prize Brand Reputation And Service Breadth When Shortlisting Service Providers

The most popular area of customer spend for workplace systems integration is employee engagement apps, followed by BMS and energy system optimization projects. When reviewing potential providers to engage with, what factors impact the customer selection process? The 2020 Verdantix survey finds that the:

- **Most important factor for customers selecting providers is brand reputation.**
  Nearly half (46%) of customers in the corporate survey said that brand reputation is very important when selecting a workplace systems integrator (see **Figure 4**). Firms such as Accenture, Cushman & Wakefield, Deloitte, IBM, JLL and KPMG have a strong brand presence, and this has a positive halo effect on their ability to engage with customers. This is because these firms have been successful in multiple technology and software markets, with multi-billion revenues sustained across many decades.

- **Second most important factor is the breadth of services on offer.**
  Ninety-four per cent of our global interview panel of 250 firms said the breadth of systems integration services was very important or important in their decision to select vendors. Customers are keen to streamline the range of vendors they contract with, often preferring to work with a single vendor for multiple repeat projects. In our interviews we heard that this factor was particularly important for customers embarking on a global, multi-site workplace transformation project with wide-reaching impacts across their entire organization.

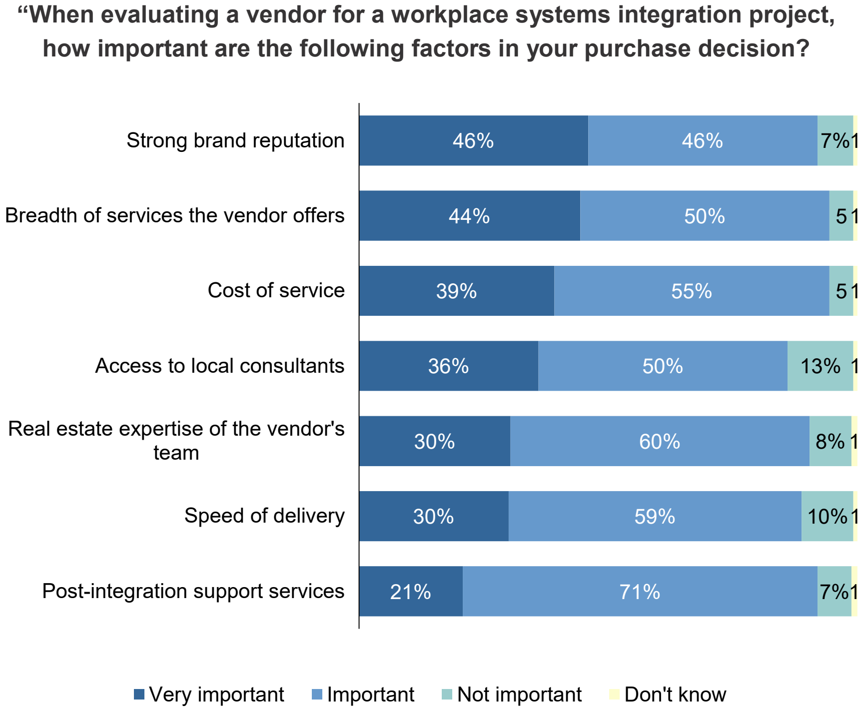
- **Cost of service and speed of delivery can shape the depth of integration services purchased.**
  Nearly 40% of customers said that cost of service is a very important purchase criteria and 30% said the same of speed of delivery. For example, JLL worked with a global restaurant chain to implement its resource booking systems into its new headquarters. Features consist of 'find a room near me now' room finding and booking, and automatically checking in to a room by entering it, alongside a mobile integration. Regarding the speed of delivery, Deloitte claims that it has been able to reduce the processes for gathering software capability requirements and vendor selection from a typical 12 months down to between four and six months.

- **Level of local resources and subject expertise can be strong supporting credentials.**
  Lower on the list of selection criteria, but still of significant importance, is local resources and subject expertise. Firms such as Accenture and Deloitte offer comprehensive services for IoT projects, whilst in IWMS and space management deployments, firms such as JLL and Ricoh have stand out credentials. When making purchasing decisions, customers must balance these facts with the strength of local resources. For example, JLL has a strong presence in North America and the UK but may not have the breadth of local resources that AREMIS has in mainland Europe.

- **Post-integration support services are very important for one fifth of customers.**
  There are some players in the workplace systems integration market with a clear lead in offering support services, and this may appeal to some customers with a need for troubleshooting and workflow tweaks after a deployment has been finalized. Atos and Cognizant, for example, both operate over 100 dedicated technical support locations across the globe, marking them as the two strongest providers for this selection criterion. Customers may look to firms such as these for support services, whilst also going to the Big Four accountancy firms for advisory and implementation services.

FIGURE 4

Purchase Criteria For Workplace Systems Integration Service Providers



Source: Verdantix Global Corporate Survey 2020: Smart Building Technology, Budgets, Priorities & Preferences **N=250**

Green Quadrant For Workplace Systems Integrators

Customers of workplace systems integration services across multiple industries and geographies seek solution providers who leverage deep real estate and IT process domain expertise as well as proven implementation experience. Customers engage these service providers to enhance the workplace experience for employees, supporting strategies such as improving occupant wellbeing, talent retention, hybrid working and space rationalization. For the purpose of this report, Verdantix defines workplace systems integration services as:

IT and business consulting, in conjunction with software implementation and post-deployment support services, to digitize and enhance workplace management processes, such as, but not limited to, collaboration enablement, office resource usage and building operations management.

This definition includes the six capability criteria featured in this report: 1) access control, 2) IoT platforms, 3) workplace management software applications, 4) employee apps, 5) building operations and 6) workplace IT operations.

Green Quadrant Methodology

The Verdantix Green Quadrant methodology provides buyers of specific products or services with a structured assessment of comparable offerings across vendors at a specific point in time. The methodology supports purchase decisions by identifying potential suppliers, structuring relevant purchase criteria through discussions with customers and providing an evidence-based assessment of the products or services in the market. To ensure the objectivity of the study results, the research process is defined by:

- **Transparent inclusion criteria.**
  We worked to analyse all providers that would qualify for inclusion in this research. For those providers that declined our invitation or failed to respond, we worked to include them based on publicly available information that would provide an impression of those firms' market positioning if it were deemed possible and accurate.

- **Analysis from a customer's perspective.**
  We spoke with a panel of customers of workplace systems integration services to understand the relevant buying criteria. These discussions informed how we weighted the evaluation criteria in the model that drove the Green Quadrant analysis graphic. Additionally, we utilized data from Verdantix corporate surveys of real estate and facilities management decision makers.

- **Scores based on available evidence.**
  Since it would be unfeasible to check all data and claims that the providers make, we emphasized the need for professional integrity. Correspondingly, competitors and existing customers can check each participant's assertions as they have been placed in the public domain through this report.

- **Reliance on professional integrity.**
  To assess the expertise, resources, business results and strategies of individual providers, we collected evidence from public sources and conducted interviews with multiple representatives of each systems integration consultant as well as industry experts. When providers claimed to be 'best-in-class', we challenged them to present related evidence.

- **Comparison based on relative capabilities.**
  We constructed measurement scales ranging from 'worst-in-class' to 'best-in-class' performance at a certain point in time for each assessment criterion. A provider's position in the market can change over time depending on how its offering and success evolves compared to its competitors. This means that, even if a provider adds new capabilities, makes a strategic acquisition or receives new investment, its quadrant positioning may not improve relative to other service providers if their competitors also enhance their offerings. Verdantix repeats a Green Quadrant analysis for a product or service market annually or every two years to capture these transitions over time.

Evaluated Firms And Selection Criteria

Verdantix defined vendor inclusion criteria to ensure that the Green Quadrant analysis only compared firms providing similar services. The 13 providers of workplace systems integration services included in this study were selected because they:

- **Engage in IT and business consulting capabilities for workplace systems.**
  To qualify for this benchmark study, participants must have an established consulting offering for workplace systems integration, such as requirements gathering and vendor selection; technology business case development; business process design and improvement; and organizational change management and governance. These service lines help customers identify the problems that a software deployment would solve, express their requirements in a bid document, assess the return on investment, and understand the impact a technology implementation would have on broader organizational processes.

- **Engage in at least two of the six implementation areas.**
  To qualify for this benchmark study, participants must offer implementation services across at least two of the following service sub-segments: 1) access control, 2) IoT platforms, 3) workplace management software applications, 4) employee apps, 5) building operations, and 6) workplace IT operations, regarding the use of collaboration and productivity tools. We also required vendors to implement third-party software solutions, eliminating the workplace software vendors who only implement their own products.

- **Generate an annual revenue from workplace systems integration projects of at least $3 million.**
  Verdantix established this hurdle in order to screen out small workplace systems integrators. Although smaller firms may offer capabilities similar to those of their larger counterparts, including this subset would have invalidated the direct peer-to-peer comparison. For this reason, the final inclusion criterion was an annual revenue generation of at least $3 million, which all participants easily passed.

Based on the inclusion criteria above, this report evaluated 13 workplace systems integration service providers: Accenture, AMS Workplace Technology, AREMIS, Atos, Cognizant, Cushman & Wakefield, eCIFM Solutions, Deloitte, Horizant, IBM Services, JLL, KPMG and Ricoh. All service providers in this study actively participated through responses to a 92-point questionnaire and detailed briefings about their offerings. Verdantix also invited CBRE, Capgemini, EY, Infosys, Newmark, PwC and Tata Consulting Services, but they chose not to participate this year.

Evaluation Criteria For Workplace Systems Integrators

Verdantix developed the evaluation criteria within the Green Quadrant through a combination of interviews with real estate managers, systems integration consultants, desk research and general industry knowledge. Additional insights were taken from the 2020 global corporate survey of real estate decision makers, which contains specific questions on customer preferences for capability areas and their purchase criteria when selecting a service provider to work with. In full, this Green Quadrant analysis compared offerings from 13 workplace systems integration providers using a questionnaire with 92 sections, weighted by popularity with customers. Of these 92 sections, 75 measured the strength of each participant's service line. The remaining 17 measured each participant's forward momentum in the market. Individual metrics were classified as:

- **Capabilities metrics.**
  The capabilities dimension of the analysis, as captured on the vertical axis of the Green Quadrant graphic, was used to measure each workplace systems integrator based on the breadth and depth of its service approach, differentiators against other providers, and its proven experience in each area. Verdantix assessed capabilities across two categories. In the first category, IT and business consulting capabilities for workplace systems, Verdantix assessed providers across four capabilities. In the second category concerning implementation services, Verdantix assessed providers across six capabilities. Verdantix also assessed evidence of support services in each of these six capabilities. In total, Verdantix assessed the providers across 75 criteria.

- **Momentum metrics.**
  The momentum dimension of the analysis, as captured on the horizontal axis of the Green Quadrant graphic, was used to measure each systems integrator based on the strength of its market vision, its ability to support customer needs and its track record in customer wins. To assess performance along this dimension, Verdantix collected data on 18 criteria in six areas: 1) vision and strategy, 2) organizational resources, 3) customer base, 4) deal dimensions, 5) commercial partnerships and 6) financial resources.

Verdantix weighted each primary criterion and sub-criterion based on its importance within the individual capabilities and momentum dimensions. We developed the weightings based on customer survey data about the importance of each criterion and Verdantix analyst perspectives about the broader workplace digital services landscape. Verdantix defined success measures for each sub-criterion and then scored each participant's performance on each sub-criterion from zero to three. For example, IWMS systems integration is a criterion addressed in the capabilities section and is composed of three sub-criteria that determined the overall IWMS score. The combination of the providers' scores across the capabilities and the momentum dimensions generated the Green Quadrant graphic. **Figure 5** and **Figure 6** provide details on the study criteria; **Figure 7** and **Figure 8** provide the scoring for all participants against the criteria. The figures also present the weighting of each primary criterion, shown inside the parentheses. **Figure 9** provides the Green Quadrant graphic summarizing the positioning of all service providers in this benchmark study.

FIGURE 5 — 1

Capabilities Criteria For Workplace Systems Integrators

CAPABILITIES	
Requirements gathering (5%)	What are your capabilities and best practice approach to requirements gathering and vendor selection for workplace systems? How does your firm differentiate its approach? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Technology business case development (6%)	What are your capabilities and best practice approach to business case development for workplace systems? How does your firm differentiate its approach? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Business process design and improvement (3%)	What is your capabilities and best practice approach for business process optimization for workplace systems? How does your firm differentiate its approach? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Organizational change management and governance (6%)	What are your capabilities and best practice approach to organization change management consulting for workplace systems? How does your firm differentiate its approach? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Access control systems implementation (4%)	What are your best practice approach to systems integration for access control systems? What partnerships are in place with access control system vendors? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Access control systems support services (3%)	What are your capabilities and best practice approach to providing support services for access control systems? (Includes maintenance, support and helpdesk services.) How does your firm differentiate its approach? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
IoT sensors and connectivity (5%)	What are your best practice approach to systems implementation for IoT sensors and IoT connectivity in buildings? What partnerships are in place with IoT sensor vendors? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your of capabilities.

Figures in brackets represent the weighting given to each criterion in the flexible multi-criteria model that generates the Green Quadrant graphical analysis.

Source: Verdantix

FIGURE 5 — 2

Capabilities Criteria For Workplace Systems Integrators

CAPABILITIES	
IoT platforms (4%)	What is your best practice approach to systems implementation for IoT platforms? What partnerships are in place with IoT platform vendors? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Building digital twin software (2%)	What is your best practice approach to systems implementation for building digital twins? What partnerships are in place with digital twin vendors? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your of capabilities.
Support services (all IoT and digital twin systems) (1%)	What are your capabilities and best practice approach to providing support services for IoT and digital twin systems? (Includes maintenance, support and helpdesk services.) How does your firm differentiate its approach? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
IWMS platforms (7%)	What are your best practice approach to systems implementation for IWMS platforms? What partnerships are in place with IWMS vendors? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Lease management software (3%)	What is your best practice approach to systems implementation for specialist lease management systems? What partnerships are in place with lease management software vendors? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Space management systems (7%)	What is your best practice approach to systems implementation for building digital twins? What partnerships are in place with space management vendors? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Digital signage (3%)	What is your best practice approach to systems implementation for digital signage? What partnerships are in place with workplace digital signage vendors? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your of capabilities.

Figures in brackets represent the weighting given to each criterion in the flexible multi-criteria model that generates the Green Quadrant graphical analysis.

Source: Verdantix

FIGURE 5 — 3

Capabilities Criteria For Workplace Systems Integrators

CAPABILITIES	
Support services (all real estate and workplace systems) (3%)	What are your capabilities and best practice approach to providing support services for real estate and workplace systems? (Includes systems maintenance, support and helpdesk services.) How does your firm differentiate its approach? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Workplace mobile app (10%)	What implementation services do you offer for employee mobile apps? What partnerships are in place with workplace mobile app vendors? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Employee COVID-19 solutions (6%)	What implementation services do you offer for COVID-19 solutions? What partnerships are in place with technology vendors offering COVID-19 solutions? How many projects in this area has your firm worked on in the last year? Please also summarize your role in a project to highlight the extent of your capabilities.
Support services (employee engagement software) (4%)	What is your capabilities and best practice approach to providing support services for employee engagement software? (Includes systems maintenance, support and helpdesk services.) How does your firm differentiate its approach? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
CMMS / FDD (6%)	What implementation services do you offer for CMMS/FDD? What partnerships are in place with CMMS and FDD vendors? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Energy and sustainability management software (4%)	What systems implementation services do you offer for energy and sustainability management software? What partnerships are in place with energy and sustainability management software vendors? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Support services (all building operations systems) (4%)	What are your capabilities and best practice approach to providing support services for building operations software? (Includes systems maintenance, support and helpdesk services.) How does your firm differentiate its approach? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.

Figures in brackets represent the weighting given to each criterion in the flexible multi-criteria model that generates the Green Quadrant graphical analysis.

Source: Verdantix

FIGURE 5 — 4

Capabilities Criteria For Workplace Systems Integrators

CAPABILITIES	
Cloud collaboration tools (1%)	What systems implementation services do you offer for cloud-based collaboration tools? What partnerships are in place with cloud collaboration vendors? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Unified device management (1%)	What systems implementation services do you offer to facilitate a switch to unified device management amongst a given client's workforce? What partnerships are in place to support unified device management? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Mobile device support and management (1%)	What systems implementation services do you offer for mobile device management? What partnerships are in place to support mobile device management? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.
Remote intranet access management (1%)	What systems implementation do you offer to create a VPN and integrate with any relevant enterprise resource systems? What partnerships are in place to support remote intranet access management? How many projects in this area has your firm worked on in the last two years? Please also summarize your role in a project to highlight the extent of your capabilities.

Figures in brackets represent the weighting given to each criterion in the flexible multi-criteria model that generates the Green Quadrant graphical analysis.

Source: Verdantix

FIGURE 6

Momentum Criteria For Workplace Systems Integrators

MOMENTUM	
Vision and strategy (25%)	What is your firm's vision for the evolution of customer requirements over the next two years? What is your firm's strategy to meet the needs of customers and develop your services over the next two years?
Organizational resources (5%)	Does your firm have a dedicated smart building or workplace technology practice? How many employees in-house work on workplace technology projects? What is the average years of experience in the real estate and workplace sector across your in-house team? In how many locations does your firm have technical support locations? Please specify both the number and geographic coverage. What is your strategy for sub-contracting? What sub-contractors do you typically engage? What percentage of your overall workforce is comprised of external expertise?
Size of customer base (20%)	What is the size of your customer base for workplace systems integration services in 2020?
Deal dimensions (15%)	In the last two years, how many projects have you won with a lifetime value greater than $1m? In the last two years, how many projects have you won with a lifetime value greater than $500k? In the last two years, how many projects have you won with a lifetime value greater than $100k? In the last two years, how many projects have you won with a lifetime value greater than $50k but lower than 100k?
Commercial partnerships (15%)	With which vendors does your firm have a publicly announced strategic alliance to deliver workplace IT services? With which vendors does your firm have an informal partnership to deliver workplace IT services?
Workplace services revenue and growth (20%)	What are your firm's annual revenues in the last financial year? What were your firm's revenues from workplace services in the last financial year? How did revenues for workplace IT services change between 2019 and 2020?

Figures in brackets represent the weighting given to each criterion in the flexible multi-criteria model that generates the Green Quadrant graphical analysis.

Source: Verdantix

FIGURE 7 — 1

Capability Criteria Scores For Workplace Systems Integrators

	Accenture	AMS	AREMIS	Atos	Cognizant	Cush & Wake	Deloitte
Requirements gathering and vendor selection	2.3	1.0	1.5	0.0	1.3	1.5	2.5
Technology business case development	2.5	1.0	1.5	0.0	1.0	1.8	2.0
Business process design and improvement	1.8	1.0	1.3	0.0	1.5	2.0	2.5
Organizational change management and governance	2.5	0.8	1.0	1.0	1.3	1.5	3.0
Access control systems implementation	1.5	0.0	0.0	2.0	2.0	1.0	1.0
Access control systems support services	1.0	1.0	1.0	2.0	1.3	1.0	1.3
IoT sensors and IoT connectivity	2.0	1.0	1.0	1.3	2.5	0.8	2.3
IoT platforms	2.3	1.0	0.0	1.0	2.0	1.3	3.0
Building digital twins solutions	2.0	0.0	1.0	0.0	1.0	0.8	2.0
Support services (all IoT and digital twin systems)	1.8	0.0	0.0	2.3	2.5	0.8	2.3
IWMS platforms	1.3	1.8	1.8	0.0	1.5	1.8	2.5
Lease management solutions	2.3	1.0	1.8	0.0	1.0	2.8	2
Space management systems	1.3	1.5	1.8	1.0	1.0	2.0	1.3
Digital signage	1.8	1.3	0.0	0.0	1.0	0.5	0.0
Support services (all real estate and workplace systems)	1.3	1.5	2.0	2.5	1.5	1.0	1.8

Source: Verdantix

FIGURE 7 — 2

Capability Criteria Scores For Workplace Systems Integrators

	Accenture	AMS	AREMIS	Atos	Cognizant	Cush & Wake	Deloitte
Workplace mobile apps	2.3	1.0	1.0	1.5	1.3	1.5	2.5
Employee COVID-19 solutions	1.5	1.0	1.3	1.8	1.3	0.5	2.5
Support services (all employee engagement software)	1.0	0.8	1.0	2.8	2.0	0.0	1.0
CMMS / FDD	2.3	1.0	1.3	0.0	1.0	1.5	1.3
Energy and sustainability solutions	1.8	0.5	0.0	1.5	1.8	1.5	1.0
Support services (all building operations systems)	2.0	1.0	1.8	1.5	1.5	0.8	2.0
Cloud collaboration tools	1.5	0.0	0.0	1.8	2.5	0.0	1.0
Unified device management	1.5	0.0	0.0	1.5	2.0	0.0	2.5
Mobile device support and management	2.8	0.0	0.0	1.0	1.5	0.0	1.0
Remote intranet access management	1.5	0.0	0.0	1.8	1.0	0.0	1.8

Source: Verdantix

FIGURE 7 — 3

Capability Criteria Scores For Workplace Systems Integrators

	eCIFM	Horizant	IBM Services	JLL	KPMG	Ricoh
Requirements gathering and vendor selection	1.0	1.0	1.3	2.5	2.0	1.5
Technology business case development	0.8	1.0	1.3	2.0	2.0	1.5
Business process design and improvement	1.0	1.5	1.3	3.0	1.3	1.5
Organizational change management and governance	1.0	1.0	1.3	2.8	1.5	1.0
Access control systems implementation	0.8	0.8	1.3	0.0	2.8	1.5
Access control systems support services	1.0	0.0	1.3	0.0	1.0	1.5
IoT sensors and IoT connectivity	1.0	1.0	2.0	2.0	2.0	1.0
IoT platforms	1.0	1.0	1.8	2.0	2.3	1.8
Building digital twins solutions	0.0	1.0	1.0	1.5	1.5	0.0
Support services (all IoT and digital twin systems)	1.0	1.0	1.5	2.0	0.3	1.0
IWMS platforms	1.8	1.8	1.5	2.8	1.0	2.0
Lease management solutions	1.0	1.5	1.5	2.5	1.0	0.3
Space management systems	1.5	1.5	1.5	2.5	1.3	2.5
Digital signage	0.8	0.8	1.0	2.3	1.0	1.5
Support services (all real estate and workplace systems)	1.3	1.5	2.3	3.0	1.3	2.0

Source: Verdantix

FIGURE 7 — 4

Capability Criteria Scores For Workplace Systems Integrators

	eCIFM	Horizant	IBM Services	JLL	KPMG	Ricoh
Workplace mobile apps	2.0	1.5	1.5	2.5	1.5	2.0
Employee COVID-19 solutions	1.5	1.0	2.3	2.8	1.0	1.5
Support services (all employee engagement software)	1.0	1.3	2.0	1.8	1.0	1.0
CMMS / FDD	1.5	1.5	2.0	2.5	0.8	0.0
Energy and sustainability solutions	1.0	1.0	2.0	2.3	1.3	0.0
Support services (all building operations systems)	1.0	1.5	1.8	2.5	1.0	0.0
Cloud collaboration tools	1.0	0.0	2.5	0.0	0.8	1.8
Unified device management	0.0	0.0	1.3	0.0	1.3	2.0
Mobile device support and management	0.8	0.8	1.3	0.0	1.3	1.8
Remote intranet access management	1.0	0.8	2.0	0.0	1.0	2.0

Source: Verdantix

FIGURE 8

Momentum Criteria Scores For Workplace Systems Integrators

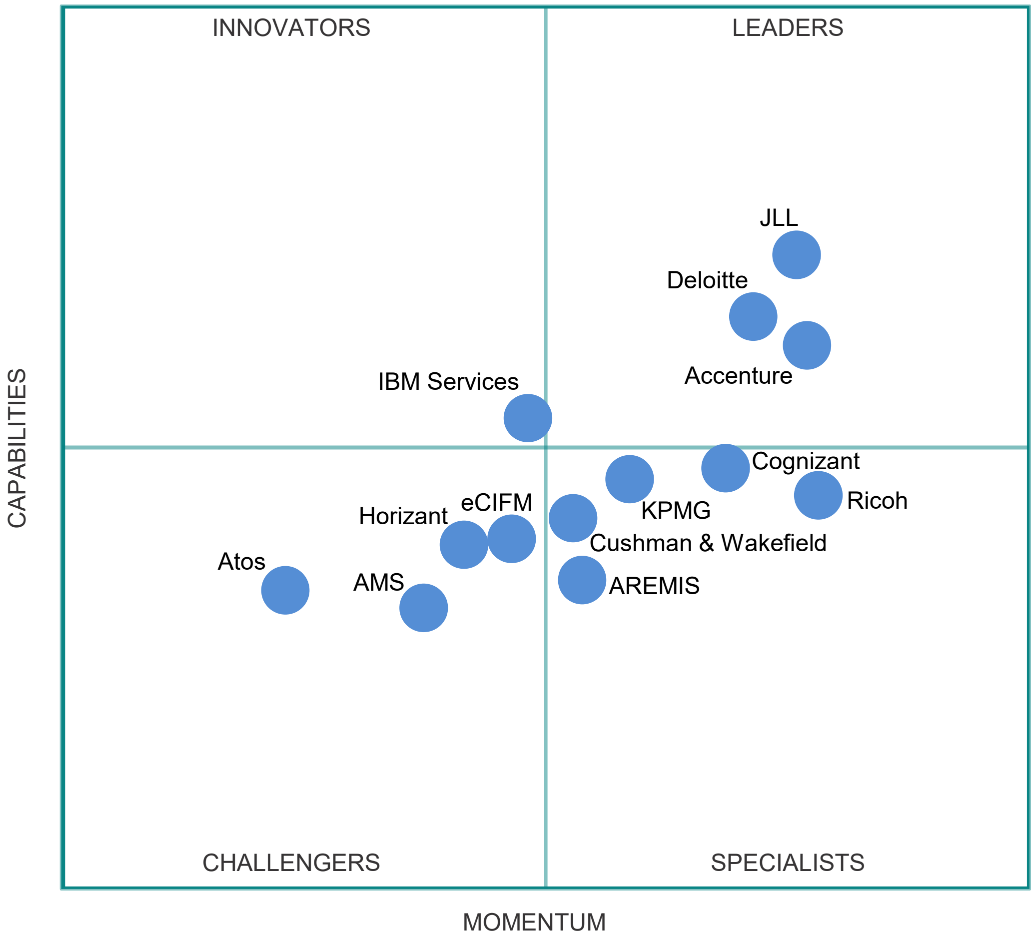
	Accenture	AMS	AREMIS	Atos	Cognizant	Cush & Wake	Deloitte
Vision and strategy	2.0	1.0	1.5	0.0	2.5	1.5	2.5
Organizational resources	2.7	1.2	1.5	1.2	2.3	1.8	1.5
Size of customer base	3.0	1.0	2.0	0.0	2.0	2.0	2.0
Deal dimensions	2.0	1.3	2.0	1.0	2.2	0.0	1.6
Commercial partnerships	2.5	1.0	1.8	1.0	1.3	1.3	2.3
Workplace services revenue and growth	2.0	1.3	1.0	1.7	2.0	2.7	2.3

	eCIFM	Horizant	IBM Services	JLL	KPMG	Ricoh
Vision and strategy	1.5	1.5	1.0	2.5	2.0	2.0
Organizational resources	2.2	1.2	1.0	1.8	1.7	2.1
Size of customer base	2.0	1.0	2.0	3.0	2.0	3.0
Deal dimensions	1.5	1.3	1.5	2.3	1.5	1.6
Commercial partnerships	1.0	1.0	1.3	1.0	1.0	2.0
Workplace services revenue and growth	0.7	1.3	1.7	2.3	2.0	3.0

Source: Verdantix

FIGURE 9

Green Quadrant Workplace Systems Integrators 2021



Capabilities	This dimension assesses capabilities for the following: requirements gathering and vendor selection, technology business case development, business process design and improvement, organizational change management and governance, access control systems implementation, access control systems support services, IoT sensors and IoT connectivity, IoT platforms, building digital twins software, support services (all IoT and digital twin systems), IWMS platforms, lease management software, space management systems, digital signage, support services (all real estate and workplace systems), workplace mobile apps, employee COVID-19 solutions, support services (all employee engagement software), CMMS / FDD, energy and sustainability management software, support services (all building operations), cloud collaboration tools, unified device management, mobile device support and management, remote intranet access management
Momentum	This dimension assesses strategic success metrics including: market vision, business strategy, dedicated workplace technology practice, in-house resources, real estate expertise, technical support locations, sub-contracting, customer accounts, deals >$1m, deals >$500k, deals >$100k, deals >$50k, strategic alliances, project based partnerships, annual revenues, workplace IT services revenue, workplace IT services revenue change

Source: Verdantix

JLL Is A Strong End-To-End Service Provider Of Workplace Systems Integration

JLL is a global commercial real estate (CRE) services firm, with offices across 80 countries. It offers a wide variety of real estate services, encompassing brokerage, portfolio management, capital project and retrofit projects, real estate investment and real estate technology implementation. In 2019, it launched JLL Technologies (JLLT), a business division to centralize and grow its digital and technology initiatives which now works with more than 2,000 clients. JLLT also operates the Spark fund, a corporate venture arm that invests in and helps to grow innovative proptech firms and solutions.

Strengths And Differentiators

Based on the Green Quadrant analysis, Verdantix finds that JLL has strengths in:

- **IT consulting capabilities for workplace initiatives.**
  JLL achieved consistently high scores across all consulting areas assessed in our study, including requirements gathering and vendor selection (2.5/3.0); technology business case development (2.0); business process design and improvement (3.0/3.0); and organizational change management and governance (2.8). For business process design and improvement, it demonstrated market-leading capabilities, through its comprehensive and detailed methodology. This involves assessing the maturity of a firm's business processes, identifying the pain points of tech deployment, matching different solution options, meeting broader enterprise goals, and facilitating stakeholder consensus. JLL draws on its domain knowledge from managing billions of square feet of real estate. For a global financial services firm, for example, it created a roadmap with 21 areas of CRE management, including reservation, space planning and analytics systems.

- **Complete real estate software deployments such as IWMS platforms.**
  JLL again scored consistently highly for its implementation capabilities across the real estate and workplace management software areas considered in this study. These included integrated workplace management systems (IWMS) (2.8/3.0); lease management (2.5); space management (2.5); digital signage (2.3); and support services for real estate and workplace systems projects (3.0). For IWMS projects in particular, only Ricoh had comparable numbers of projects won in this area, with these two firms winning far more than the other participants in this benchmark study. JLL also demonstrated its ability to fire on multiple cylinders during an implementation project. The firm assisted a Canadian fintech organization with setting up business intelligence tools for real-time analytics and data aggregation from building systems and Internet of Things (IoT) devices. JLL deployed an agnostic plug-and-play tech strategy, consolidated CRE applications from 65 to 15 integrated systems and improved CRE efficiency with space, move and lease administration tools.

- **Workplace mobile app deployments that support productivity and COVID-19 prevention.**
  JLL achieved a market-leading score of 2.5/3.0 for its workplace mobile app deployment capabilities. It offers implementation, integration and support services for a variety of partners, such as SpaceIQ's Archibus, FM:Systems, IBM TRIRIGA, iOFFICE and Modo Labs. It also provides its own in-house developed solution, JLL Jet, which leverages machine learning (ML) and a broad ecosystem of integrations to offer services centered around a user's schedule and most common workplace needs. Examples of current integrations include Cisco, Corrigo, IBM, Microsoft and Robin. Using its extensive partnership ecosystem, JLL has also reconfigured existing mobile apps and deployed new ones to support return-to-work initiatives, assisting with use cases such as chequerboard seating reservations and capacity monitoring.

Improvement Opportunities

Based on the Green Quadrant analysis, Verdantix finds that JLL could improve by:

- **Developing in-house expertise on smart access control to complete its offerings.**
  To round out its smart workplace offerings, JLL should consider building out an implementation capability for access control systems. There is innovation in this market, with the rise of cloud-connected access control systems from vendors such as Brivo, Lockitron and Openpath. There is also buyer demand, with one-fifth of facilities management executives planning to invest more in commercial software to support their access control and security management processes.

- **Building a support network for point solutions that optimize specific business processes.**
  JLL's current systems implementation capabilities are slanted towards large real estate platforms such as IWMS solutions. The firm should continue its efforts to expand this partnership ecosystem to cover best-of-breed specialist solutions that are relevant to both enterprise corporates and to small and medium-sized enterprises (SMEs). A 2019 buyer survey by Verdantix found a split in the market between corporates looking for a single platform to organize their real estate processes and those looking to deploy multiple point solutions to orchestrate such processes (see Verdantix Global Corporate Survey 2019: Smart Building Technology Budgets, Priorities & Preferences).

Selection Advice For Buyers

Considering all workplace systems implementor offerings assessed through the Green Quadrant, we believe that JLL should be shortlisted by:

- **North American, UK and Australian firms looking to optimize real estate portfolio operations.**
  The majority of JLLT's operations are spread across the US, Canada, and the UK, although it has been steadily expanding its reach into Europe and the Asia Pacific (APAC) region. JLLT is well-placed to support firms interested in deployments across its core three regions. JLLT has worked with a large not-for-profit US healthcare system, comprising 397 primary enterprise locations (totaling over 15 million square feet) and 60,000 employees. JLL supported this organization in deploying space management, lease abstraction, lease payment digitization, bed license reporting and safety compliance audit solutions.

- **Visionary firms interested in developing mobile apps focused on staff schedules.**
  JLL stands out amongst the crowd for its workplace mobile app capabilities. Notably, its extensive experience in deploying workplace apps has led to it developing JLL Jet, an AI-driven plug-and-play solution that adjusts to an individual user's booking preferences, daily schedule patterns and colleague contacts. This is a unique proposition in the market and demonstrates JLL's deep domain expertise in the types of mobile solutions customers seek. JLLT is therefore well-placed to understand the needs of firms with ambitious plans to leverage workplace mobile apps.

- **Corporates looking for a real estate consulting partner with a strong digital agenda.**
  Amongst the 'Big 4' real estate firms, JLL has made the clearest commitment to building out a technology capability, by launching a $100 million Spark proptech fund and acquiring two IWMS systems implementors, BRG and ValuD. It has also elevated its technology services into a standalone division — JLLT — which has more than 2,000 clients across 130 countries and has deployed software across more than 6 billion square feet. Firms looking to work with a single firm that can provide real estate services such as facilities management, supported by strong technology capability, should further review JLL.

VERDANTIX CAPABILITIES

RESEARCH, ADVISORY, INSIGHTS & EVENTS

Through our research activities and independent brand positioning we provide clients with:

Research relationships based on an annual research subscription
Confidential advisory services such as commercial due diligence
Thought leadership studies for brand building and lead generation
Executive summits, roundtables and webinars
Advisory workshops to rapidly increase your sector knowledge
Multi-country and complex customer survey projects
Marketing campaign support with analysts and content

VERDANTIX MARKET COVERAGE

Environment, Health & Safety
Focuses on the software and services markets that enable corporations to improve their performance across environment, health and safety including compliance, risk and performance.

Operational Excellence
Focuses on helping managers in operations, asset reliability, process safety and maintenance roles to leverage technologies which enhance production reliability, asset health and operational safety.

Smart Building Technologies
Focuses on software, intelligent building technologies and consulting services that enable real estate and facilities executives to optimize the value and performance of their building portfolios.

ESG & Sustainability
Focuses on the decisions of investors, tech providers, financial services firms and corporate leaders. Conducting in-depth research on the full range of services and technologies required to succeed with ESG and sustainability strategies.

WHY VERDANTIX?

Verdantix is an independent research and consulting firm with a focus on innovative technologies that optimize business operations. We have expertise in environment, health, safety, quality, operational risk, as well as smart building technologies.

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