

# Select the right solution for integrated workplace management

*Create smarter buildings by integrating workplace data with analytics  
and automation*



Today's buildings and workplaces are major generators and receivers of data. By capturing and analyzing this data, organizations can gain improved understanding of their operational effectiveness, accelerated ability to react to change and increased returns from real estate-related decisions. Improved insight and control can create positive impacts in all aspects of real estate performance, from lease accounting and capital projects to facility maintenance, space utilization and energy consumption.

But it's challenging to manage facilities efficiently when the workplace is ever-changing, with a workforce growing increasingly flexible and home-based. How confident are you that you can execute lease renewals that benefit your organization? Would the savings associated with an enterprise-wide change to more energy-efficient lighting outweigh the cost of the change itself?

These and similar building-related questions can only be addressed one way: through integration. Increased instrumentation supplies the data, but the interconnectedness of that data with analytics and process automation enables the delivery of authentic intelligence. It is only through integration—between real estate and workplace management processes and with other enterprise systems and processes—that organizations can build smarter global infrastructures.

To integrate functional models across key areas of the organization, you will need an effective solution for workplace data integration. As you research options, look for those that work across real estate, capital projects, facilities space management, facilities maintenance, and environmental and energy management—all within a single technology platform. The solution you choose should deliver increased visibility, control and automation within each of these five areas, along with providing cross-functional capabilities and a sophisticated—yet simple—management

system architecture. The right integrated workplace management system (IWMS) can help you transform the way you manage your assets to achieve increased efficiencies, more effective utilization and greater financial return.

## Getting started with integrated workplace management

This buyer's guide outlines the features and capabilities of an effective IWMS, addressing the following key areas:

1. Real estate management
2. Capital project management
3. Facilities management
4. Facilities maintenance and operations
5. Environmental and energy management
6. Cross-functional capabilities
7. Management system architecture

Individual sections of the guide provide checklists of features to help you evaluate whether or not an IWMS solution effectively addresses each of these areas. You will also find tips to help you select solutions with support—and a vendor with the financial stability—to address the full range of your IWMS requirements.

### 1. Real estate management

Senior executives continue to place emphasis on real estate as a key strategic asset by consolidating or disposing of underperforming locations to significantly reduce expenses, or by opening new locations to generate top-line improvements in financial performance. In addition, new global lease accounting rules will soon place operating leases on the balance sheets of public companies in Europe, as well as the US and many other countries, further increasing the impact of real estate on financial performance.

To comply with the upcoming new lease accounting standard, organizations should seek a closed-loop system to evaluate lease transactions against purchases and other planning scenarios and to automatically create leases and transactions upon approval of critical data notifications. They will need an integrated management system that forecasts the balance sheet impact, simplifies the lease accounting processes and automates audit processes.

The ideal IWMS will automatically track and notify users of significant dates and will reconcile payments against lease terms, streamlining lease renewals and avoiding erroneous overpayments to unlock significant cost reductions and increase lease administration effectiveness.

<b>Real estate management</b>		
<b>Look for a solution that:</b>	<b>IBM</b>	<b>Other</b>
Delivers pre-built dashboards for real estate, lease administration and lease accounting roles, with end-user dashboard configuration to fit personal work styles	✓	
Provides a closed-loop process between transaction management, lease management and lease accounting for new leases and renewals	✓	
Evaluates financial, operational and regulatory impacts across multiple lease-build-buy scenarios to determine “best fit” real estate transactions	✓	
Provides side-by-side comparison of scenarios against current term and other transaction scenarios	✓	
Automates creation of real estate and asset-lease contracts and payment schedules, as well as critical date notifications—for expirations and options—from approved lease abstracts	✓	
Provides pre-built forms and data import processes for offline abstraction of real estate and asset leases via internal and third-party abstraction resources	✓	
Provides “smart” clauses that contain specific data attributes for each clause and option type	✓	
Delivers balance sheet and income statement analysis under both new and existing lease accounting rules	✓	
Simplifies “likely term” assumption reviews required under new IASB/FASB standards with pre-built option selector	✓	
Provides bulk update processes for incremental borrowing rate, index growth rate and fair market rental value (FMRV) assumptions, and for rent component assumptions such as maintenance, taxes and rent	✓	
Automates the creation and update of amortization schedules based on approved data changes	✓	
Automates notices and alerts such as expiring leases, available options and overdue payments	✓	
Provides pre-built performance metrics such as cost per area, occupancy rate and on-time delivery to determine operational and financial performance against targets	✓	
Provides direct pre-built integration with lease administration, transaction management, asset management and strategic planning components within a single solution	✓	

## 2. Capital project management

In today's economy, in which many organizations face limited financial resources, none can afford wasteful programs or projects that fail to meet planned outcomes, or that don't produce measurable business improvements. It makes sense, then, to use an IWMS that provides project management metrics to help prioritize capital project funding requests.

The right IWMS can improve the quality of capital, facility and environmental projects and accelerate project schedules. It can analyze project risks and financial benefits and automate

project management controls and alerts essential to the delivery of ad-hoc projects and complex programs of any size in an effective manner.

Look for an IWMS that can deliver the advanced project execution and control capabilities required to effectively complete projects on time, within budget and with the necessary quality. In short, choose a solution that can maximize the return on your capital project investment.

### Capital project management

Look for a solution that:	IBM	Other
Delivers pre-built dashboards for program managers, project managers, consultants and contractors, with end-user dashboard configuration to fit personal work styles	✓	
Provides pre-built performance metrics to objectively determine and prioritize capital project funding requests, helping select the ideal project portfolio to align with business strategy	✓	
Provides energy investment analyses in which users aggregate environmental opportunity records across portfolio-wide, site-specific and user-defined programs	✓	
Evaluates the required investment, cost savings, carbon reduction and return of investment (ROI) of each opportunity using embedded ENERGY STAR calculations	✓	
Automates creation of capital funding requests for aggregated environmental opportunities upon approval	✓	
Automates creation of project tasks and schedule dependency data directly from user-defined templates or Microsoft Project schedules to identify critical path schedule	✓	
Provides design management processes to capture, review and approve project design documents	✓	
Provides cost management including project budgets, forecast management and payment reconciliation	✓	
Provides earned value analysis with pre-built spend curves for early warning of problems against plan	✓	
Provides vendor management capabilities such as construction bid, change order and purchase order management processes to help reduce cost and schedule overruns	✓	
Delivers pre-built and ad-hoc capabilities to capture and validate green building ratings	✓	
Provides pre-built metrics to measure project cost and schedule performance against planned targets	✓	

### 3. Facilities management

There is no doubt that the workplace is changing. In fact, about 20 percent of workers around the globe telecommute frequently, and nearly 10 percent work from home every day, according to a recent Ipsos/Reuters poll.<sup>1</sup> Other external factors also drive change, as organizations confront the realities of downsizing, relocation, mergers and acquisitions, and rapid growth. Facilities executives must deliver a dynamic combination of people, process, technology and space to support these changes.

To ensure that your organization's buildings and staff operate at their best—even as the way they operate together continues to change—seek an IWMS that can centralize and integrate critical facilities management processes to improve the effectiveness of a distributed workforce; increase the utilization of physical facilities; and accelerate the efficient configuration of your workplace.

<b>Facilities management</b>		
<b>Look for a solution that:</b>	<b>IBM</b>	<b>Other</b>
Delivers pre-built dashboards for facility executives, facility managers, space planners and move managers, with end-user dashboard configuration to fit personal work styles	✓	
Provides pre-built performance metrics to determine underutilized and underperforming facilities characteristics such as area per person, cost per area and occupancy rate	✓	
Provides integration with Autodesk and Bentley MicroStation to increase space planning accuracy	✓	
Provides an n-level planning framework to define business plans, facility objectives and performance goals across a portfolio, region, site or facility	✓	
Automates the capture of actual space use to accelerate understanding of core business demands	✓	
Provides online and offline surveys to determine future space use over user-defined planning periods	✓	
Assesses the impact of space forecasts (demand) against facilities (supply) to identify gaps in facilities utilization	✓	
Provides scenario modeling tools to determine the impact of alternative workplace strategies, such as hoteling, to increase facility utilization	✓	
Provides visual “stack planning” and analysis to determine best-fit allocation of departments within facilities	✓	
Delivers side-by-side comparison of scenarios against the status quo, planning goals and others to identify highest return alternatives	✓	
Automates creation and sequencing of personnel and asset moves from facility planning scenarios to streamline move planning and implementation of preferred scenarios	✓	
Delivers workplace reservation management for workplace hoteling, as well as reservations for conference rooms, vehicles and other equipment	✓	
Provides Microsoft Exchange and Outlook client integration to increase user adoption and productivity	✓	

#### 4. Facilities maintenance and operations

As businesses strive to improve energy efficiency and reduce operating costs while continuing to deliver—and improve—services of the highest quality, facilities maintenance and operations management become key. Organizations should strive to deliver maintenance services that actively improve the efficiency of energy-consuming assets, increase the effectiveness of critical assets and extend the life of capital equipment.

As you research the right IWMS for your organization, look for one that automates demand and preventive maintenance services and improves service provider management to reduce the cost of maintenance operations. The ideal solution would include facility assessment features to track and evaluate building and asset deficiencies, and to help identify opportunities to improve the condition of the environment and extend the lifecycle of real estate and facility assets.

#### Facilities maintenance and operations

Look for a solution that:	IBM	Other
Provides a role-based dashboard for facilities maintenance supervisors, technicians and service providers, with end-user dashboard configuration to fit personal work styles	✓	
Includes a full asset management and work order system that holds building equipment maintenance, warranty, location and service history	✓	
Provides automated alerts that identify critical equipment maintenance requirements from sensor-level data	✓	
Generates corrective work orders and service requests based on out-of-band conditions, priority, the asset involved and location	✓	
Provides self-service product and service request processes to streamline site and employee services	✓	
Routes auto-generated work orders to appropriate personnel and service providers as needed for condition-based, corrective and preventive maintenance	✓	
Provides data records that capture the root cause and safety-related data for each completed work task	✓	
Automates reconciliation of invoices against previous payments and contract terms to identify overcharges	✓	
Provides pre-built processes, reports and performance metrics to support energy efficiency certification, energy management systems certification and energy ratings for buildings	✓	
Provides pre-built performance metrics such as preventive maintenance to repair maintenance cost ratio and service response rate to improve the efficiency and effectiveness of maintenance staff and service providers	✓	
Collects energy-consumption data and building equipment performance metrics to support historical trending and analysis	✓	
Delivers advanced parts and inventory processes, pre-built reports and ad-hoc reporting capabilities to streamline parts and inventory management	✓	
Provides facility assessment to determine the condition and replacement cost of critical facility assets and calculate Facility Condition Index (FCI) rating	✓	

## 5. Environmental and energy management

As energy costs rise, organizations become more conscious than ever of reducing energy use and building environmental sustainability. Reducing facility energy use just makes good business sense, since energy costs represent 23 percent<sup>2</sup> of the total occupancy costs of facilities.

As you research integrated workplace management systems, look for one that identifies operating anomalies within energy-consuming equipment such as HVAC units and automates corrective actions. It should provide integrated analysis tools

that analyze and compare potential efficiency measures to optimize the financial and environmental returns from energy reduction investments.

The ideal IWMS will deliver true integration across operational modules for maintenance, project management and space planning to accelerate successful implementation and ensure the projected returns are realized. Through the delivery of a platform for ongoing monitoring and management across the enterprise, the right IWMS will ensure that environmental and energy improvements represent long-term sustainable gains, rather than quick wins.

<b>Environmental and energy management</b>		
<b>Look for a solution that:</b>	<b>IBM</b>	<b>Other</b>
Provides a role-based dashboard for energy and sustainability executives and professionals, with end-user dashboard configuration to fit personal work styles	✓	
Automates the capture of building energy data from energy meters and building management systems	✓	
Automates data exchange processes with third-party energy performance benchmarking services such as ENERGY STAR in order to normalize energy performance data	✓	
Provides real-time alerts to sub-optimal conditions occurring in a building, including conditions such as simultaneous heating and cooling, equipment not on automated schedules and steam leaks	✓	
Generates work orders and service requests based on out-of-band and sub-optimal conditions, priority, the asset involved and location	✓	
Delivers pre-built forms and data validation processes for offline capture and manual data entry of primary energy data from utility bills and third-party service providers	✓	
Supports multiple currencies and multiple units of measure for energy and area for global reporting purposes	✓	
Provides pre-built performance metrics to analyze and forecast energy use and spend against internal and external energy benchmarks	✓	
Normalizes and analyzes energy performance by occupant and area, including energy-cost ratio, energy-use intensity and renewable energy ratio	✓	
Automates calculation and reporting of scope 1, 2 and 3 greenhouse gas (GHG) emissions based on energy, waste and direct-to-air emissions using GHG Protocol	✓	
Provides pre-built performance metrics to analyze GHG emissions against internal and external benchmarks	✓	
Integrates environmental and energy management with facilities maintenance, capital projects and facilities (space) management to streamline energy and environmental impact reduction strategies	✓	

## 6. Cross-functional capabilities

The real power of an IWMS is its ability to integrate functions within an enterprise, across focus areas—from lease accounting to space planning to environmental sustainability. The same underlying technology should compel certain functions, no matter which area your organization is focused on.

For example, a centralized IWMS that provides global approval management can establish a consistent way to capture and audit real estate, financial and legal decisions, and required changes.

Robust cross-functional capabilities can help further reduce facilities operational costs, increase return on real estate assets and mitigate environmental and financial regulatory risks.

Look for an IWMS that provides a consistent user interface to minimize training and support costs, pre-built business analytics to identify underperforming assets and processes, and mobile and offline capabilities to help reduce complexity and boost productivity.

### Cross-functional capabilities

Look for a solution that:	IBM	Other
Delivers pre-built dashboards and security groups based on the most common industry roles to reduce information overload and increase productivity	✓	
Enables end-user dashboard configuration to fit personal work styles	✓	
Provides hundreds of standard, pre-built IWMS workflows built from industry best practices and customer input	✓	
Delivers a single approval management process across all IWMS core functions, based on assigned roles, geographies and organizations	✓	
Supports multiple currencies as well as a system currency standard for global reporting purposes and multiple units of measure	✓	
Delivers advanced pre-defined language translations and internationalization capabilities to increase user productivity within global and international organizations	✓	
Provides master data management for organizational structures, people, geographies, locations, assets and financial cost codes	✓	
Delivers robust document and records management capabilities to capture, index, check in/out and promote collaboration on content such as documents, drawings and contracts	✓	
Offers advanced mobile/offline capabilities to eliminate paperwork, increase productivity and improve cost controls	✓	
Provides full auditing capabilities at the security, field and action levels	✓	
Delivers advanced pre-built data integrations and automated workflow processes to interface with geographical information system data to reduce integration costs and complexities	✓	

## 7. Management system architecture

An ideal integrated workplace management system should deliver a single, integrated, web-based application and technology stack made up of components designed to deliver an enterprise-class suite of IWMS business applications. It should provide a single set of design-time and runtime components used to build, deploy and run its applications, as well as enable customer-specific configurations without changes to source code.

As you perform your search, look for an IWMS that delivers a single user interface with personalization capabilities; a single workflow and business process management engine; a single repository for data and content; and a single business intelligence and reporting tool—used across all IWMS functional models.

<b>Management system architecture</b>		
<b>Look for a solution that:</b>	<b>IBM</b>	<b>Other</b>
Provides a single technology platform and data repository	✓	
Offers graphical configuration tools to rapidly configure and reconfigure applications and data structure/elements to a particular data model without changes to source code	✓	
Provides an extensive set of standard data types such as financial rollups, units of measure and color to support myriad IWMS processes	✓	
Delivers a single workflow engine to establish, implement and automate business processes	✓	
Offers a native performance analytics engine to perform data aggregation and summarization across a single IWMS data set	✓	
Provides an entirely web-based design function to generate, view and export user-defined queries and reports	✓	
Supports multiple operating systems and architecture standards, as well as multiple application, web and database servers	✓	
Supports high availability through the addition of failover and load balancers within the system architecture	✓	
Supports industry standards such as identification, authentication, encryption, user access/permissions and auditing to provide system and information security	✓	
Provides Java and XML/SOAP-based integration to streamline secure data exchanges with critical enterprise systems such as ERP, CRM, HCM, SCM and more	✓	
Enables business-logic access by external systems via current web services standards and protocols	✓	
Allows system administrators to define security rights at the level of granularity that aligns with data requirements of specific business groups	✓	
Provides performance benchmarks for thousands of users—including concurrent users	✓	

## Selecting the right vendor

The provider you choose should be able to support the full breadth of your integrated workplace management requirements. Ideally, you will also want a provider who can support you throughout the process of implementing your solution and keep you ahead of ever-changing industry standards. Before you select a provider, make sure to ask these questions:

*Are your vendor's products tightly integrated for seamless functionality?*

The more integrated the solution, the less work you have to do to streamline your IWMS functions. Make sure that the solution is interoperable with multiple platforms and servers, and that the vendor can respond quickly to changes in operating systems and infrastructure, taking immediate advantage of platform enhancements.

*Does your vendor's technology support your business goals?*

Look for vendors whose solutions are designed to facilitate your IWMS objectives. Do their solutions promote efficiencies, reduce costs, mitigate compliance-related risks and speed time to market?

*Does your vendor provide rapid time to value?*

A cost-effective solution should minimize system configuration and reduce project cost and risk. The vendor should be able to provide reliable implementation service delivery and quality assurance to help you meet IWMS objectives.

*Is the solution supported by a mature organization with expertise and bandwidth that can be relied upon when you need it?*

Your vendor should offer highly responsive and highly effective customer support. Find a vendor that has a proven support organization to help you maximize the value of your IWMS investment.

*Can your vendor deliver products that are strategically designed, technically superior and easily customizable?*

When comparing various integrated workplace management systems, look for technical superiority—well-designed functionality, an intelligent architectural design, broad support for changing industry standards and robust disaster recovery capabilities. In addition, the solution should enable customer-specific configuration without changes to source code.

*How sure are you of your vendor's stability and staying power in today's economy?*

A big issue in today's economy is vendor stability and visibility. You should consider a vendor who has a long history in the asset management sector—including expertise in real estate management—with a solid, forward-looking strategy and the resources needed to withstand adverse economic conditions.

*Are the vendor's products and services consistently rated highly by the analyst community?*

Look for solutions that leading analysts recognize as superior through independent analysis and examination across multiple dimensions.

## Address your integrated workplace management needs with IBM

As you evaluate integrated workplace management systems to meet your goals, you will find that IBM® TRIRIGA® IWMS solutions deliver more value to your organization by enabling you to consolidate your disparate systems and manage them more effectively, across functions. As the “ideal” IWMS has been defined by leading industry and technology analysts as one that integrates functional models across real estate, capital projects, facilities space management, facilities maintenance, and environmental and energy management—within a single technology platform—IBM TRIRIGA solutions deliver on all fronts.

To help ensure consistent levels of performance, the IBM quality assurance team consistently runs performance testing to document their ability to perform under high volume and load scenarios.

IBM TRIRIGA offerings are part of a larger IBM Smarter Buildings portfolio that also includes business applications for asset and facilities management. Designed to help global organizations increase return on real estate assets, reduce operational costs of facilities, and mitigate environmental and

financial regulatory risks, IBM TRIRIGA solutions automate time-consuming activities to increase the efficiency and effectiveness of real estate and facilities management.

For a complete IWMS, look to IBM TRIRIGA to integrate business processes across the real estate lifecycle, to help accelerate compliance with the new lease accounting rules, and to help you achieve your environmental and energy management goals.

### For more information

To learn more about IBM TRIRIGA integrated workplace management systems, please contact your IBM representative or IBM Business Partner, or visit: [ibm.com/tivoli/tririga](https://ibm.com/tivoli/tririga)

Additionally, IBM Global Financing can help you acquire the software capabilities that your business needs in the most cost-effective and strategic way possible. We'll partner with credit-qualified clients to customize a financing solution to suit your business and development goals, enable effective cash management, and improve your total cost of ownership. Fund your critical IT investment and propel your business forward with IBM Global Financing. For more information, visit: [ibm.com/financing](https://ibm.com/financing)



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<sup>1</sup> Reaney, Patricia. “About one in five workers worldwide telecommute: poll.” *Reuters Edition*, U.S., January 24, 2012. <http://www.reuters.com/article/2012/01/24/us-telecommuting-idUSTRE80N1IL20120124>

<sup>2</sup> International Facility Management Association, “Benchmarks V: Annual Facility Costs,” 2008



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