Market Guide for Retail Workforce Management Applications

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Initiatives: Retail Digital Transformation and Innovation

Labor optimization to support safe and flexible execution in stores is spearheading retailers’ pandemic recovery strategies. CIOs can use this guide to prioritize investments in AI-enabled retail workforce management solutions focused on store associates.

Overview

Key Findings

- The COVID-19 pandemic has placed a spotlight on retail frontline worker environments and associate experiences, driving an increased interest in workforce management (WFM) and digital workplace technologies.

- The rising cost of labor and need for enhanced health and safety measures is driving retailers to accelerate investment in AI and automation in stores.

- Leading retailers will leverage edge data in conjunction with scheduling and real-time task management solutions to lower latency and increase speed and reliability to improve the quality of associate experiences.

- The ability to support both employees and contingent workers on the same application will be increasingly critical to building, maintaining and scaling a flexible workforce.

Recommendations

CIOs seeking workforce management applications to support retail digital transformation and innovation should:

- Evaluate WFM beyond administrative use. Use lessons learned from the response to COVID-19 to leverage it for employee experience, digital workplace initiatives and as part of COVID-19 response.

- Identify and invest in functions that have the potential for the greatest impact on store managers and associate experiences, such as intelligent automation, to increase scheduling productivity and accuracy.
- Identify ways to harness edge data within task management solutions to boost associate digital dexterity.

- Revisit labor models to include third-party associates who can reliably enable scale, and flexibility, especially in crucial times of increased consumer demand.

**Strategic Planning Assumptions**

By 2023, up to 40% of Tier 1 retailers will leverage intelligent automation among their store workforce to improve business outcomes through better customer experience and associate engagement.

By 2025, 45% of large enterprises with hourly paid workers and variable demand for labor will use automation to drive workforce scheduling decisions.

By 2025, at least two of the top 10 global retailers will create a sharing economy service for store-level associates to address workforce challenges.

**Market Definition**

WFM includes software and services to assist retailers in managing the operational deployment and optimization of the in-store retail workforce and improve the effectiveness of store managers and associates. In many cases, WFM can be deployed via mobile devices for hourly retail associates — both full-time and part-time associates and, increasingly, contingent workers. Since the retail workforce is heavily weighted toward hourly workers and store staff, this research does not address headquarters staff working from home.

Core functions of retail WFM include the management and prioritization of tasks to provide optimal associate experiences. This includes direct work such as customer-facing activities to drive sales and support, as well as indirect, non-customer-facing work such as stocking shelves or cleaning, which have skyrocketed for many retailers during the pandemic. Core functionality also includes accurately measuring the working time and absences of employees, and making this information available to payroll.

WFM also ensures employers are compliant with legislation pertaining to employee working time and leave, and provides a means of creating fair and efficient work schedules. For retail, this means ensuring that the provision of labor matches expected demand. Moreover, labor must be scheduled as efficiently as possible in terms of costs and must work effectively in revenue-generating activities. This research focuses on Tier 1 and Tier 2 retail deployments of WFM. (See Figure 1.)

*Figure 1: Workforce Management Overview*
Market Description

WFM requirements may differ due to factors such as geography of operations, retail segments and the desired business outcome from investments in the application. These are important factors because the required complexity and flexibility of WFM will dictate what type of WFM solution and vendor would be the best fit for the retailer. Identifying which vendor is the best fit for their organization is a key priority for retailer leaders focused on retail digital transformation and innovation. Because retailers’ functional requirements vary, the functional capabilities of WFM vendors do as well. The categories shown in Table 1 may be broadly applied to vendors of WFM solutions.

Table 1: Pros and Cons of Different Categories of Workforce Management Vendors

<table>
<thead>
<tr>
<th>WFM Vendor Category</th>
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COVID-19 has placed a spotlight on frontline retail associates across every segment of retail. Conducting business in a pandemic has proven to be costly, and retailers have been and will continue to take greatly enhanced health and safety measures. They are also restructuring operating models to accommodate increased customer demand for unified commerce experiences. Improving productivity while keeping overall costs down is paramount for the business, thus driving retailers to take a fresh look at workplace strategies, including workforce management technologies. (See "A New Normal: Retail Store Associate Playbook Post-COVID-19.") As retail operations change, so must WFM processes. As retailers continue efforts to scale digital transformation initiatives, key accelerators for effective WFM implementations include:

- A safe digital workplace — enabling workers and managers to be collaborative, agile, analytical, innovative and creative, and have the ability to exploit existing and emerging technologies to deliver improved customer and employee experiences, including a ramp up of transparent and verifiable health and safety initiatives.

- Scaling collaborative, real-time communication and data at the edge — enabling efficient, accurate, and flexible execution of unified commerce activities, such as curbside and click-and-
Additionally, several Tier 1 retailers are piloting and/or have rolled out smart robots in stores for auditing, cleaning and fulfillment duties. Data from these activities can be fed into associate task management apps to enable more efficient workflows and collaboration. The development of automation, employee/customer experience capabilities and integration of edge data into WFM adds significant value to WFM as an investment. It positions WFM no longer simply as a system of record and operation, but as a system of differentiation and transformation. (See "Take a Human-Centric Approach to Empower the Workforce With AI."

**Market Analysis**

Today, time and attendance, data reporting, task management, scheduling and absence management are the core functions of a WFM application. Over the past several years, additional functionality has been developed and rolled out within WFM suites and is increasingly recognized as common functionality. These include:

- **Employee-rated scheduling and scheduling preferences**, which enable employees to give feedback about their satisfaction with their scheduled patterns of work, as well as provide information as to when they’d prefer to work. Typically, rating information is fed back to the schedulers and/or scheduling algorithms, informing them of future scheduling decisions. This function strongly ties into the concept of fair working and scheduling practices and focuses on the employee experience of work. Moreover, it can reduce associate attrition, which is a massive cost for retailers. For example, significant cost savings can be realized based on the time spent hiring and training new managers and employees.

- **Employee recognition and reward systems**, which leverage social software concepts, employee advocacy and mobile accessibility to introduce the process of employee recognition in retail. An important element of these new tools is the transparency of the recognition process. The tools make it easy for colleagues and managers to provide recognition and thanks for performance, and to nominate people for recognition awards. Although the increasing element of gamification in these systems encourages regular participation, employee motivation is more complicated than just paying bonuses and engaging in competitions. Today’s tools deliver analytics to measure the activity and impact of recognition programs and are delivered through mobile devices to accelerate and sustain utilization.

- **Open-shift marketplaces**, which help stores to fill open shifts by creating an on-demand labor pool from existing and opted-in employees. Associates have the option to work in, and pick

collect orders.

- **Scaling people through artificial intelligence (AI)** — significantly improving employee and manager self-service capabilities to support the automation of high-volume processes common in WFM. Examples here include time exception management, creation and management of shifts, and absence approval.
shifting from, several stores within and across regional areas, providing both the manager and employees flexibility for location and time of work. The model also facilities cross-training and collaboration opportunities across a retailer’s store or brand network.

- **Analytics and reporting**, which helps to facilitate insight into metrics related to labor forecasting and optimization, employee wellness and productivity, as well as compliance and task completion.

In addition, due to inherent WFM solution capabilities (time tracking, scheduling, absence management), WFM vendors have responded to the pandemic by providing new capabilities relatively quickly. Examples of WFM COVID-19 functionality offered by WFM vendors include:

- **Health check survey** — Delivered as a survey/questionnaire to employees in order for them to attest their physical health. This typically includes a workflow for employees to be sent home/blocked from being scheduled for a defined period of time if they are deemed as being unwell.

- **Contact tracing** — Delivered via use of employee scheduling system to identify which workers may have had contact with identified individual workers.

- **Touchless clock-in/-out** — Delivered via either a specific type of time clock (typically facial/voice recognition or RFID scanner) or a mobile clock-in/out.

Over the past few years, several leading Tier 1 retailers have been piloting and implementing artificial intelligence techniques — such as deep learning, decision making and cognitive computing embedded — in conjunction with human associates. Examples of this include smart robots and microfulfillment centers in stores to help drive speed, flexibility and efficiency.

Significant business opportunities exist in the intersection of AI, IoT, 5G and edge computing. As these technologies increasingly converge, smart robots and other IoT will evolve to provide lower latency to deliver real-time-type interactions, which are particularly well-suited for customer-facing tasks. Other benefits include the ability of IoT devices to capture and process large volumes of on-shelf data, faster and in real time, enabling retailers to make intelligent inventory decisions on the fly. It can also assist with planogram compliance. Retailers such as Walmart, Decathlon, Woolworths Group and others are already developing and utilizing collaborative human-machine store teams for audit and fulfillment workflows while collecting data at the edge to drive improvements. Examples include inventory data collected by a smart shelf-scanning robot or smart shelf device to inform workflows within task management applications. (See “Market Guide for Smart Robots in Retail.”)

In the wake of the pandemic, retailers are quickly recognizing the importance and benefits of using technologies in conjunction with one another as part of in-store IoT. Retailers are exploring a variety of technologies to analyze how stores work, assess customer behavior and make choices...
about future store design, as well as associate tasks and training. (See “Hype Cycle for Retail Technologies, 2020.”)

For retailers to enable transformation and leverage AI capability effectively, an optimum balance of skills, training and technologies will be required to provide a more accessible and data-driven work environment. The result prepares retailers to exploit changing business conditions and impact the customer experience. This will include taking into consideration the cost of commissioning, maintaining and decommissioning AI, alongside the overall costs of employee onboarding and training in an industry that typically has high turnover in stores. Gartner research on AI indicates that, along with disruption to labor strategies, the convergence of AI and the Internet of Things (IoT), and increased social collaboration, will drive the transformation of current retail business models and organizational structures. The convergence will very likely result in revolutionizing retail during the next few decades.

The latest generation of WFM applications includes capabilities and features beyond core functional capability. These include:

- **Automation of manager experience** — New technology platforms are evolving the capabilities of WFM solutions from those that provide sophisticated recording, compliance, and reporting to those that further improve time and employee tracking and better optimize the WFM processes through more extensive task automation. New features promoted by providers are ostensibly targeted at all user types — frontline employees, line managers, administrators and upper management. Often, however, the ultimate aim is to allow managers to strategically manage the workforce rather than tactically manage it by spending many hours on administering and “feeding” the WFM system. One example is for automated intraday management, schedule fulfillment and capacity planning. Gartner anticipates that demand for the automation of the manager experience will be driven primarily by the retail sector, where optimizing staffing costs is a key priority. Tesco and Sainsbury’s, two of the largest supermarket retailers in the U.K., have reduced the number of managers over the past few years and are prime examples of this in action. ¹

- **New platforms** — Applications are built on cloud-first platforms with the latest architecture and more robust frameworks for developing and managing APIs. One example is data integration with store IoT devices. Gartner believes that new technology platforms will evolve to support the cloud-only future that we predict. The new platforms will be cloud-native, mobile-native and real-time data-driven. They will also have in-memory data processing for faster operating speeds, will constantly be updated with new innovative functionality, and will be easy to extend and integrate with other systems. Kronos Workforce Dimensions is a recent example of a cloud-first WFM suite.

- **Virtual assistants (VAs)** — A VA is a personable, semi-intelligent interface that allows users to interact with the application via bidirectional voice or text commands. VAs present a new approach for workers and managers to interact and engage with a WFM application. For
example, VAs could facilitate more effective swapping and assignment of shifts. While many WFM applications today have the capacity to alert workers to open shifts, through a VA and more personable communication, as well as a more user-friendly system, more open shifts could be filled more quickly. Furthermore, as well as assigning schedules, VAs could also communicate tasks to workers and track completion of tasks (an example of a vendor offering this type of solution is Theatro). Again, task or activity management is not new for WFM, but by communicating it on a personal level, increased productivity could be achieved, as well as greater insight into labor operations.

- **Flexible workforce** — As the percentage of contingent workers grows in the total workforce, their involvement has matured from just operational and administrative to more strategic and business-crucial roles. Yet, most of the WFM platforms currently do not provide any insights regarding the deployment of contingent workers. One example of a WFM vendor enabling contingent workforce is WorkJam. Additionally, its acquisition of on the demand staffing Forge in early 2020 further provides further support for contingent workers within the WorkJam Digital Workplace platform.

Representative Vendors

Market Introduction

This Market Guide provides summary information on representative vendors in the market. All vendors listed here, at a minimum, provide the functionality of tracking working time and attendance (hourly paid workers) and workforce scheduling. Note that there are hundreds of vendors active in this market and this Market Guide is limited to presenting no more than 20 representative vendors. There may be additional vendors active in the market that are relevant and suitable for you that are not included in this research.

Table 2 provides a summary of representative vendors that participated in this research.

<table>
<thead>
<tr>
<th>Vendor Name</th>
<th>Vendor Category</th>
<th>Product</th>
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<tbody>
<tr>
<td>ADP</td>
<td>HCM</td>
<td>ADP Workforce Manager</td>
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<td></td>
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<td>ADP Enterprise eTIME</td>
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<tr>
<td>Blue Yonder</td>
<td>Biz App</td>
<td>Blue Yonder Workforce Management</td>
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<td>Ceridian</td>
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<td>Humanity</td>
<td>WFM</td>
<td>Humanity Employee Scheduling Platform</td>
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<tr>
<td>Infor</td>
<td>HCM + Biz App</td>
<td>Infor Workforce Management</td>
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<tr>
<td>Kronos</td>
<td>WFM</td>
<td>Workforce Dimensions, Workforce Central Services</td>
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<tr>
<td>Legion Technologies</td>
<td>WFM</td>
<td>Legion WFM</td>
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<td>Retail Specialist</td>
<td>Logile Workforce Management Suite</td>
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<td>WFM</td>
<td>e-Premium and myProtime Suite</td>
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<td>WorkJam</td>
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<td>WorkJam Digital Workplace</td>
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Source: Gartner (September 2020)
The vendors listed in this Market Guide do not imply an exhaustive list. This section is intended to provide more understanding of the market and its offerings.

Vendor Profiles

ADP

ADP Workforce Manager

Solution Overview: ADP Workforce Manager is a suite of WFM solutions. It offers capabilities for timekeeping, attendance tracking, attendance policy management, leave case management, accrued time off management, scheduling, forecasting, work tracking and reporting/analytics. It leverages AI and ML to automate decision making and forecast labor needs. It was released in November 2017, with the first client going live in January 2019. The current version is R6. R7 is planned for October 2020.

Geographic Localization: At the time of writing, there are only live clients in the U.S. ADP has worked with a global employment law firm to select a list of 66 additional countries for the October 2020 launch.

Industry Specialism: Workforce Manager is suited for industries with large hourly workforces, including retail. Examples of industry-specific functionality include attendance policy management, which helps formalize uniform policies, as well as discipline and reward systems. A work module tracks time to activities for the purpose of job/project costing, productivity tracking and feeding data to ERP/other systems.

Average Customer Size: The product is designed for the mid to large enterprise market, ranging from 500 to 50,000+ employees.

Delivery Mode: ADP Workforce Manager is delivered exclusively in a hosted, multitenant public cloud environment from Google. On average, there are two to three major releases per year, and clients automatically receive them.

Partnerships/Integrations: ADP partners with Kronos for core WFM capabilities in this product, and with Vocantas to help communicate open shifts to employees and for employees to sign up for shifts and communicate that they will be absent.

Recent Innovation and News: ADP Compliance on Demand is a new capability for WFM clients. It offers a content repository with more than 2,000 resources — articles, webinars, legislative alerts and more — focused on wage and hour compliance. It also offers an online community for group discussions with peers.

COVID-19 Innovations: ADP created a Health Attestation for clients to present to employees before they clock in. A series of questions are presented, related to COVID-19 symptoms, and the employee must attest to being symptom-free in order to clock in. If someone is identified as being
infected, WFM data can be used to understand who may have been exposed. ADP has added voice commands to the ADP Time Kiosk app. The existing facial recognition credential option has been enhanced to sense when someone is present without being touched, so it can initiate the identification. Once logged in, the user can use voice commands such as “clock in” to perform transactions and then logout for a touchless experience.

Remote Planning and Deployment Options: ADP is currently conducting all implementations remotely. ADP has converted to a fully virtual meeting strategy. ADP has created a Virtual Meeting Playbook that has been shared with all Implementation Consultants and is shared with clients when kicking off the implementation process.

ADP Enterprise eTIME

Solution Overview: ADP Enterprise eTIME is a WFM solution offering timekeeping, attendance management, scheduling, forecasting, budgeting, task/project tracking and analytics. It has been in production for more than 10 years, and ADP has thousands of clients live on the solution. The current version is V8.x.

Geographic Localization: ADP’s WFM solution has been localized for more than 100 countries today, with clients live in 60 of those countries.

Industry Specialism: The product is suited for industries with large hourly workforces, shift-based schedules and complex regulatory requirements, union agreements and company policies, including retail. Retail-specific functionality includes forecasting and optimized scheduling capabilities. The solution is also suited for office workers and offers salaried worker time cards and tracking of accrued time off and PTO.

Average Customer Size: The product is designed for the mid to large enterprise market, ranging from 500 to more than 10,000 employees. The average client has approximately 5,000 employees.

Delivery Mode: ADP Enterprise eTIME is delivered exclusively in a hosted, multitenant private/ADP cloud environment. Upgrades are frequent, and clients automatically receive them.

Partnerships/Integrations: ADP has a long-standing agreement with Kronos to white-label and resell the Kronos Workforce Central suite.

Recent Innovation and News: Following a recent update, ADP Enterprise eTIME is now Adobe Flash Player-free. Further enhancements include:

- Clocking has been enhanced to allow for offline punches and job transfers as well as 24/7 clocking, including during system downtime.
- The new Employee Data Assignment tool allows information to automatically flow and stay synchronized between the HR system of record and Time records.
Blue Yonder

Blue Yonder Workforce Management

Solution Overview: The Blue Yonder Workforce Management solution provides labor planning, time management, mobility and scheduling. The first go-live date was in the early 2000s. The solution now has more than 250 customers and is used to schedule seven million workers weekly.

Geographic Localization: Blue Yonder (formerly JDA Software) has been localized in more than 45 countries, including, but not limited to the U.S., Canada, Japan and the U.K.

Industry Specialism: Blue Yonder specializes in retail, serving multiple subindustries, including grocery, hospitality, convenience store, big box, softlines, general merchandise, hardlines, department stores and restaurants. Blue Yonder also serves clients in the logistics/warehouse sector and is actively expanding its capabilities to serve numerous industries. The solution is designed to cater to variable demand in labor via forecasting and scheduling engines. These capabilities enable enterprise labor management for retailers in their stores, as well as their warehouses.

Average Customer Size: The average deployment size is from 30,000 to 50,000 employees, but deployments range from fewer than 80 to more than 1 million employees.

Delivery Mode: Blue Yonder’s Workforce Management solution is available in the Microsoft Azure Cloud. It is hosted via single-tenant cloud and annual upgrades are included as part of the service.

Partnerships/Integrations: Examples of strategic partners include Panasonic, Microsoft, WorkJam, and Shyft.

Recent Innovation and News: In February 2020, JDA Software announced its rebranding to Blue Yonder. More recently, Blue Yonder has introduced Luminate, a connected cognitive platform that leverages SaaS, IoT, ML and AI on the Microsoft Azure platform.

COVID-19 Innovations: Blue Yonder has implemented:

- New support for 9/80 schedules, which consists of eight nine-hour days and one eight-hour day that is split into two four-hour shifts. This ensures employees can have one weekday off and a break on another day to take care of personal matters, without needing to take time off.
- Additional functionality related to the shift marketplace to allow employees to maintain their preferences, and drop and pick up shifts fluidly as their schedule or situation changes
- A Health Attestation feature, allowing users to declare their health status
Blue Yonder’s data science team is building new capabilities on Luminate in response to COVID-19. These include taking data feeds from the Centers for Disease Control and Prevention, with data on growth of the virus impact by region, and mapping manufacturing, logistics and retail sites to model responses. Blue Yonder’s data science is available to help define customer requirements and develop solutions that address disruption caused by COVID-19.

Remote Planning and Deployment of WFM Applications: Blue Yonder has introduced a new deployment model that can be executed 100% remotely.

Ceridian

Dayforce

Solution Overview: Dayforce Workforce Management (WFM) is a global cloud solution built on a single HCM platform. Dayforce WFM combines labor planning, forecasting, scheduling, time and attendance, absence management, task management, and analytics. It provides advanced scheduling that aligns labor staffing with peak periods, employee skills and regulatory requirements. Schedules are created using different methods, such as autoallocation of labor based on prescriptive analytics and historical data. When paired with Dayforce Payroll, real-time payroll data is fed into Dayforce WFM to enable “what if” scheduling scenarios and optimize labor deployment and budgeting. At the time of writing, Dayforce has 4,480 live customers on release 58.

Geographic Localization: Dayforce is deployed in more than 65 countries and currently supports more than 22 languages.

Industry Specialism: Dayforce WFM provides retailers with a forecasting and scheduling engine that enables managers to schedule their store associates in alignment with customer demand. Managers are provided with real-time visibility into how well their scheduled shifts match the forecast pattern of customer traffic throughout each day and are provided with immediate feedback into how their decisions impact coverage.

Average Customer Size: Dayforce can serve customers of all sizes, ranging from 100 to more than 100,000 employees. The solution can scale to meet the needs of organizations as they grow and expand globally.

Delivery Mode: Dayforce is primarily provided as a public cloud, managed by Ceridian, but it is also offered as a dedicated hosted environment for customers looking for a private operating environment. Dayforce cloud is a multicloud solution incorporating Microsoft Azure, Amazon Web Services (AWS), and Ceridian’s own hosted environment through Navisite’s managed hosting services. This approach allows Ceridian to use both native and IaaS capabilities within each
provider to architect a solution designed around security, scalability, reliability and extensibility. Release upgrades are delivered to customers semiannually.

**Partnerships/Integrations:** Ceridian’s Dayforce Software Partner Program (DSPP) is a software partner ecosystem to help organizations connect other HCM-related solutions. DSPP partners have access to Ceridian’s APIs, which they use to build integrations that are, in turn, certified by Ceridian.

**Recent Innovation and News:**

- **Dayforce Touch** — Ceridian plans to expand its use of biometric credential options in September 2020, by equipping the Dayforce Touch clock with facial recognition.

- **Dayforce Assistant** — In April 2020, Ceridian launched newly added functionality to Dayforce Assistant. A voice- and chat-enabled assistant using natural language processing to understand requests and provide responses enables workforce schedules and attendance to be managed using voice commands.

- **Dayforce Wallet** — Launched earlier in 2020, Dayforce Wallet is a digital financial solution based on Ceridian’s Flexible Earned Wage Access capability. This enables workers to access earned wages anytime during the pay period and deposit funds immediately into a digital account where purchases are made through a digital wallet with a Dayforce Prepaid Mastercard.

**COVID-19 Innovations:** Ceridian launched Dayforce Safety Monitor, which enables organizations to manage exposure risk by tracking employee location, health status and emergency contact information. Organizations can also use Safety Monitor to provide real-time, location-based notifications to update employees with important health and safety information. Ceridian also launched an online COVID-19-related learning resource available complementary to both customers and noncustomers.

**Remote Planning and Deployment of WFM Applications:** Dayforce only requires an internet connection to configure the environment by either Ceridian’s Implementation Services team or a System Integrator partner. The vendor and its partners also leverage online meeting applications for video-enabled consultation and coaching.

**Deputy**

**Solution Overview:** Deputy provides workforce scheduling, time and labor cost management, alongside reporting capabilities. Deputy’s rule engine automates wage calculation in accordance with local workplace legislation, ensuring employers meet their obligations and employee rights are protected. At the time of writing, more than 250,000 workplaces and 1.5 million workers use Deputy.
**Geographic Localization:** Deputy has customers in more than 100 countries, including but not limited to Australia, Canada, New Zealand, the U.K., and the U.S. Deputy has offices based in Australia, the U.K., and the U.S.

**Industry Specialism:** Deputy has been adopted across retail, restaurant and hospitality, manufacturing, logistics and others.

**Average Customer Size:** Customers range from small independent stores to employers with more than 100,000 workers.

**Delivery Mode:** Deputy is hosted on AWS multitenant cloud infrastructure. Deputy operates a highly scalable and redundant infrastructure backed by Amazon's 99.99% uptime service-level agreements. Deputy operates active monitoring and active penetration testing to ensure security. Customer data is shared in different database partitions, which ensures no data overlap/loss of data integrity between customers. Deputy was also built with the same 256-bit SSL encryption standards used by banks and other financial institutions. Deputy also uses dual-factor verification, single sign-on, and mobile device management for users of the application in order to maintain security and privacy.

**Partnerships/Integrations:** Deputy uses an OAuth 2.0-compliant RESTful API for integration with third-party applications. Some of Deputy’s most adopted POS integrations include Impos, Kounta, Lightspeed, Square, Vend, Revel and Xenial.

**Recent Innovation and News:** Deputy recently launched the following new features in the last two months:

- **Smart Scheduling — Labor Optimization:** Provides a new dashboard with demand metrics to show how the business is performing, enabling informed decision making when scheduling

- **Smart Scheduling — Budget Management:** Control costs while ensuring optimal schedule coverage

- **Pay by Area:** Offers different pay rates based on skills, capabilities and roles

- **Open Shifts:** Ensures suitable employees fill open shifts

- **Site Scheduling:** Assigns a remote job site to a shift and schedule employees to do work at that job site quickly

**COVID-19 Innovations:**

- **Touchless Clock-In** — Facial recognition and voice commands enable employees to clock in and out of work, as well as start and end breaks.
Remote Planning and Deployment of WFM Applications: Deputy supports complete remote implementations and deployments of the solution through Zoom video teleconference calls, shared project management and file transfer tools.

Humanity

Humanity Employee Scheduling Platform

Solution Overview: Founded in 2010, Humanity has more than 10,000 customers worldwide. Humanity offers a cloud-based, configurable and flexible workforce scheduling platform with built-in reporting and analytics.

Geographic Localization: Humanity’s platform is only available in English and has been deployed primarily in the U.S.

Industry Specialism: Humanity’s platform has been developed to assist industries with shift-based work, which covers a broad range of industries, including retail.

Average Customer Size: Humanity’s customer sizes range from 200 to 30,000 employees

Delivery Mode: Humanity’s platform is deployed in the cloud. The main product is hosted as a multitenant application on IBM Cloud. Furthermore, certain parts of the product use AWS public cloud managed services. The Humanity platform is updated every three weeks.

Partnerships/Integrations: Humanity has approved partnerships and API integrations with the following HCM platforms: Workday, Oracle HCM Cloud, Ultimate Software and BambooHR.

Recent Innovation and News: In 2020, Humanity released an update containing demand-driven scheduling and labor forecasting that automatically builds and fills schedules based on customer data. Humanity also added to the flexibility of the platform with Humanity Tags, which allow customers to build employee schedules while simultaneously tracking billable hours against their own clients. In addition, Humanity’s new Data-as-a-Service (DaaS) product was recently launched to enable customers to merge their scheduling with other data sources to drive informed business decisions. Finally, Humanity redesigned the Availability module, which offers employees and managers more visibility and customization to ensure schedules are up to date, accurate, and optimized for shift and staffing coverage.

Clock-In Questions — This performs an automated health check of every employee before starting their shift to prevent clock in if the employee presents signs of illness and to limit COVID-19 exposure.

Contact Tracing Report — Customers can track any unwell employees and any other employees that may have been exposed as part of internal contact tracing processes.
COVID-19 Innovations: Humanity has added contact tracing reporting to the DaaS offering. This is designed to enable customers to better maintain the safety of internal/external customers.

Remote Planning and Deployment of WFM Applications: Humanity supports remote deployments and implementations.

Infor

Infor Workforce Management

Solution Overview: Infor Workforce Management (WFM) has been developed to streamline the processes of labor planning, scheduling, timekeeping and complex pay calculation. The application first went live in 1999, and the cloud version was launched in 2012. The latest major version is 7.0.0. Infor WFM is being used by more than 650 customers globally.

Geographic Localization: Infor WFM has been localized in 60 countries, including Australia, Austria, Belgium, Canada, China, France, Germany, India, Indonesia, Ireland, Japan, Jordan, Mexico, Singapore, South Africa, Spain, the United Kingdom and the United States.

Industry Specialism: Infor WFM has industry functionality tailored for retail and includes ML-based forecasting and budgeting, demand-based schedule optimization and task management.

Average Customer Size: Infor WFM supports customers ranging from 500 to more than 1 million employees, the majority of customers have more than 10,000 employees.

Delivery Mode: Infor WFM is available for deployment both in the cloud and on-premises. The cloud Infor WFM update strategy consists of two major releases per year with monthly minor/patch releases.

Partnerships/Integrations: Infor WFM includes integrations with Oracle, SAP, Workday, Ultimate Software and ADP. Infor WFM has a configurable framework for integration with other products as well. Infor WFM facilitates platform interoperability with an extensive API Framework that partners and customers leverage for usability and data management needs.

Recent Innovation and News: Infor WFM version 7, released in February 2020, introduced several new features, with a focus on operational scheduling. A shift marketplace was introduced as means to give employees an extra level of flexibility in managing their own schedules, as well as to give managers a way to fill openings and incentivize high-priority shifts. Central Staffing gives schedulers a cross-team operations dashboard with industry-tailored KPI to allow for easy decision making when filling openings and assigning flexible staff (e.g., float pool). ML is now leveraged by the forecasting and scheduling processes for retail optimization, giving more accurate labor forecasts for scheduling by consuming historical sales, traffic and transaction data, along with weather data and promotional calendars.

COVID-19 Innovations: Examples of functionality include Contact Tracing via the time sheet detail filtering capabilities. Infor WFM also recently released a wellness affirmation tool, available on Gartner, Inc. | 723735
physical clock devices, that asks employees to affirm that they are symptom-free as part of the
clocking process. Infor will also be offering a similar wellness affirmation feature on mobile
devices, a new, enhanced Contact Tracing report, and a data load tool to help our retail customers
populate sales, traffic and transaction data from unique timeframes. This will also counter the
irregular data generated by the lockdown period.

Remote Planning and Deployment of WFM Applications: Infor is making use of remote
collaboration tools, including video/conference calls, screen sharing and whiteboard capabilities,
as well as cloud environments, to support remote deployments and customer engagements.

Kronos

Workforce Dimensions

Solution Overview: Workforce Dimensions (WFD) is designed to handle complex, global WFM
needs for enterprise organizations. At the time of writing, WFD has grown to 800 customers across
4 million employees since its launch in November 2017. WFD has been developed to automate
complex time and attendance tracking for improved business results, and create optimal workforce
schedules.

Geographic Localization: U.S., Germany, France, Canada, Mexico, United Kingdom, Australia, Czech
Republic, Sweden, Belgium, and Japan. Poland and Spain are coming with the next release.

Industry Specialism: Retail task management facilitates assignments, visibility and
communication. Optimized scheduling and machine learning forecast demand, build schedules
and labor budgets.

Average Customer Size: The average customer size is approximately 5,000 employees, but ranges
from hundreds of employees to more than 100,000 employees.

Delivery Mode: WFD is a multitenant, public cloud application. Major releases are delivered every
five to six months. In between major releases, Kronos releases functionality based on the needs of
customers or driven by demand from certain verticals, countries or other major disruptions (e.g.,
COVID-19/legislation change).

Partnerships/Integrations: WFD is built on an API platform and has a partner marketplace. WFD
integrates with G Suite, Microsoft Outlook, Microsoft Teams and IBM Watson. WFD also has
prebuilt integrations with third-party HCM and ERP solutions, including Ultimate Software, SAP,
Oracle and Workday. WFD also has prebuilt integrations with Epic EHR (healthcare) and
Manhattan WMS (supply chain), and on-demand flexible earned wage access vendors, including
Even, Branch, PayActiv and Salary Finance. WFD is also resold by ADP (as Workforce Manager)
and SAP SuccessFactors Human Experience Management (HXM) Suite (as SAP Time
Management by Kronos).
Recent Innovation and News: On 1 April 2020, Kronos completed its merger with Ultimate Software. WFD and Workforce Ready (WFR is for or small to midmarket organizations) are now the go-forward WFM products for all customers in the newly merged company. In other news, the Kronos AI-engine “AIMEE” has expanded its use cases to include personalized recommendations for employee and role-based insight for managers and intelligent audits.

COVID-19 Innovations: In response to COVID-19, Kronos developed and released contact-tracing capabilities that leverage data science to analyze labor records and time and attendance data. This new capability enables organizations to identify and respond in situations where employees may have come in contact with a person who has tested positive or is presumed positive for COVID-19. The contact-tracing tools provide reports, focusing on potential contacts, even down to time and location (e.g., building, floors, etc.). In addition, Kronos has also provided touchless punching using RFID, proximity and mobile clock-in/out as well as partnerships with providers of facial recognition technology, wellness screening and thermal imaging solutions. Lastly, the newly created customer group on the Kronos Community portal is dedicated to communicating and providing a platform for discussions around COVID-related issues, including product questions, legislative updates and best practices.

Remote Planning and Deployment of WFM Applications: Kronos consultants leverage data extraction and configuration tools that can be used remotely. Kronos has also expanded the support of additional collaboration tools to ensure all customers can connect with Kronos during implementation and configuration. In addition, Kronos extended 24-hour support at no cost for all customers to help support them during the pandemic.

Workforce Central

Solution Overview: Workforce Central (WFC) was launched in 2001 and has been deployed by more than 7,000 organizations globally. WFC is an established product, incorporating configurations and solutions for specific industries and use cases including retail. While the cloud-native solutions WFD and WFR are the company’s flagship offerings for enterprise and midmarket organizations, WFC is available for distinct use cases requiring a hosted, single-tenant or an on-premises deployment. At the time of writing, WFC is on version 8.1.7.

Geographic Localization: Workforce Central has live customers in more than 100 countries.

Industry Specialism: WFC is suitable for a broad range of industries with large proportions of hourly-paid/blue-collar workers, including retail, manufacturing, healthcare, education, public sector, hospitality and financial services.

Average Customer Size: The average customer size is from 5,000 to 10,000 workers, although Kronos has customers using this product with 500 to more than 600,000 workers.

Delivery Mode: WFC is available in a hosted model via single-tenant public cloud, installed on-premises or via a partner-hosting delivery model.
Partnerships/Integrations: WFC has prebuilt integrations with HCM/ERP applications, including SAP, Oracle and Workday, as well as specialty enterprise applications such as Manhattan WMS (supply chain). Service partners include Deloitte, PwC, TCS, Infosys, Workforce Insight, Sability, The WFC Group and Axsim.

Recent Innovation and News: Kronos continues to support and invest in WFC. These investments are focused on enhancing usability, security and compliance, as well as support customer demands or other major disruptions (e.g., COVID-19).

COVID-19 Innovations: See the WFD section.

Remote Planning and Deployment of WFM Applications: See the WFD section.

Legion Technologies

Legion Workforce Management

Solution Overview: Legion Technologies (Legion) was founded in 2016 and serves more than 300,000 employees across its ~30 midmarket and enterprise customers. Legion's AI-enabled WFM platform facilitates labor spend management while ensuring improved experiences for employees and customers alike. The platform automatically forecasts demand, computes labor needs, and staffs the appropriate number of employees at the appropriate times based on employee preferences, skills and qualifications. Additional capabilities include shift swapping and information communication/broadcasting for workers.

Geographic Localization: Legion is currently focused on the North American and European markets, operating in the U.S., Canada, and recently, the U.K. The mobile application for employee self-service is currently available in English and Spanish.

Industry Specialism: Examples of industries currently served by Legion include retail, hospitality, food and beverage, warehouse and distribution centers, healthcare, and fitness/wellness.

Average Customer Size: Legion serves organizations ranging from 5,000 employees through 150,000 employees and more.

Delivery Mode: Legion is a multitenant, cloud-based solution. The company works in an agile development environment and provides quarterly upgrades.

Partnerships/Integrations: Examples of partners/integrations within Legion's ecosystem include ADP, BambooHR, Ultimate Software, Workday, Oracle, SAP, and Cornerstone OnDemand. In addition, Legion has partnered with Workato's integration platform to provide out-of-the-box integration capabilities with a wide variety of applications and back-office systems.

Recent Innovation and News: Recent innovations include using data science to better plan forecasting scenarios that do not follow typical historical trends, and human-assisted demand forecast modifications in fully centralized mode (for HQ-based roles) or distributed mode (using
field management roles). Legion Advanced Insights offers customers self-service data exploration, reporting and analytics capabilities on datasets. These capabilities are delivered within the Legion application and do not require any additional IT integrations. Recent improvements to Legion’s AI-powered Schedule optimization include:

- **Schedule Smart Copy**: Managers can selectively copy full or portions of any previous week’s schedule, while letting Legion’s AI generate the remainder of the schedule automatically.

- **Schedule Score**: Managers can measure the efficacy of daily and weekly schedules, edit shifts using drag-and-drop capabilities, and see the impact of each change in real time, including any compliance and policy violations.

- **Compliance**: There is continuous support for automatic labor compliance violation alerts, employee consents and premium pay reporting, including support for all federal, state and city-level predictable scheduling laws.

- **Dashboards and Insights**: Real-time operational dashboards for Manager and Area/Upper Field Manager roles with customizable widgets from Legion Widget Library are included.

**COVID-19 Innovations**: Legion released several healthy workplace scheduling capabilities, including contact tracing, healthy worker scheduling, employee communications and collaboration, employee health surveys, and automatic adjustment of demand forecasts and labor models. Legion’s healthy workplace features allow for a potentially sick worker to be automatically removed from the schedule, their shifts to be automatically filled, and immediate notification with relevant next steps to be sent to any employees that came into contact with the potentially sick employee in recent days.

**Remote Planning and Deployment of WFM Applications**: Legion is capable of complete remote planning and deployment of the platform. Onboarding and training services are currently being delivered remotely, including automated, interactive, and in-product guides that train users and administrators through key use cases in the product.

**Logile**

**Logile Workforce Management Suite**

**Solution Overview**: Logile’s WFM suite offering consists of Sales and Labor Planning, Workforce Management and EC5 Task Execution and Communication Management. Introduced in 2005, the labor planning solution leverages labor model data to produce a bottom-up weekly labor budget, weekly and daily sales and volume forecast, and staffing for service departments at 15-minute increments. Logile’s Workforce Management solution leverages automation to generate task-based or job-based employee schedules. This is enabled by the Sales and Labor Planning solution’s approach to metric-based forecasting and planning with AI and ML. The Task Management Suite...
provides creation, planning, distribution and communication of corporate or store-level directives for training, projects, tasks, reviews, audits and surveys.

It can also be used to ensure compliance with corporate directives related to plan-o-gram management and item placement, loss prevention, merchandising, work safety, store standards, product recalls and new item promotions. Logile's Task Management solution is also used for e-commerce to include order placement, fulfillment and notifications.

**Geographic Localization:** United States, Canada, Mexico and the United Kingdom

**Industry Specialism:** Logile focuses on the retail segment and specifically the tools needed for store-level optimization. The solution is suited to this sector in its ability to forecast and schedule employees at a granular level, allowing retailers to more accurately plan and schedule the work content to meet store and customer needs. The solution leverages:

- AI and machine learning-based forecasting
- Task-based optimized staffing for both service and nonservice departments (including production planning tasks)
- Automated task-based scheduling
- Time and attendance with AI-based attendance tracking
- A food safety portfolio

**Average Customer Size:** Logile's customers range in size from 1,000 to 2,000,000 employees.

**Delivery Mode:** Logile's solutions are delivered via a hosted single-tenant cloud or a hosted private cloud. Logile offers both desktop and fully mobile platforms. Logile releases at least one minor and one major release annually, with additional features and functionalities released through a rapid-release cycle throughout the year.

**Partnerships and Integrations:** Logile does not have prebuilt integrations developed through formal partnerships, but rather works with all leading POS and HR solution providers throughout implementation to integrate.

**Recent Innovation and News:** Recent product innovation includes Logile's next-gen food safety solution to deliver guidance and program management. Other recent enhancement areas include:

- Advanced AI/machine-based learning forecasting (imported tags, auto tagging and layered adjustments)
- New and enhanced dashboard analytics
- Device-agnostic UI redesign to include simplified workflows
In 2020, Logile opened a new Center of Excellence located in India. This COE brings the scale and resources to maintain and deliver customer support 24/7.

COVID-19 Innovations: In June 2020, Logile released its touch-free Health & Temperature Scanner (HT Scanner). This solution helps organizations protect public safety and their employees and customers with infrared temperature reading, mask detection and health risk attestation screening. The solution is configurable to any organization's requirements.

The HT Scanner can operate with physical access control systems, employee feeds, or any time and attendance system to provide:

- Multiple identification options, including facial recognition with or without a mask, fingerprint template, numeric, card reader, anonymous and more
- Voice control
- Mask detection and health and risk attestation questions configured to local and organizational requirements
- Targeted communication, including video and real-time alerts and messaging

Remote Planning and Deployment of WFM Applications: Logile's labor planning, workforce management and store execution solutions can be fully deployed through remote implementation and deployment. Logile has operated virtually since its inception in 2005, with full-time workforces across the United States, Mexico, India, China and the United Kingdom.

Protime

e-Premium and myProtime Suite

Solution Overview: Protime e-Premium offers an integrated solution for time registration, access control, personnel planning, employee self-service, and cost control. These modules are available individually or sold as a bundle. Protime e-Premium has been available as a SaaS solution since 2003. myProtime is a web client partly based on the Protime e-Premium data and offers improved user experience.

Geographic Localization: Protime e-Premium is localized in 39 countries, including Belgium, the Netherlands, France, Luxembourg, the U.K., Germany, Spain, Portugal, Italy, U.S., Poland, Denmark, India, Switzerland, South Africa, China, Canada and Japan.

Industry Specialism: Protime serves multiple industries such as retail, wholesale, warehousing and manufacturing.
Average Customer Size: Customers range in size from 5 to 25,000 employees.

Delivery Mode: Protime e-Premium is hosted via a multitenant private cloud with recurring monthly upgrades. myProtime has multiple smaller upgrades every day.

Partnerships/Integrations: Protime e-Premium has user interface integrations with a range of payroll packages, ERP systems and staffing agencies. Agencies include SD Worx, ADP, EASYPAY GROUP, Acerta, Attentia, ASAP Solutions Group, Partena, Securex, Group S, Liantis, Sodiwe, Transics (TX-Connect), Prisma, Manpower, BDO and ORTEC.

Recent Innovation and News: Protime has been developing new capabilities to support the use of WFM within office environments. Strobbo, Protime’s planning product, is being developed to incorporate AI-driven planning capabilities to schedule employees automatically according to desired working times and availability. This self-rostering feature should deliver increased speed and flexibility of scheduling.

COVID-19 Innovations: A recent innovation in myProtime is contact tracing and reporting in case of illness. Work at Office in myProtime provides HR with an overview of the occupancy rate at offices. Employees can request their presence at the office and check the team calendar to see which colleagues will still be there. This can be applied to different workplaces within a company. This makes it easier to control the maximum occupancy rate of workplaces. A virtual floor plan in myProtime can also be used for occupation control. This allows customers to track how many people are working in certain zones. Contact tracing for employees can also be extended with visitor registration.

Remote Planning and Deployment of WFM Applications: Protime e-Premium is a cloud solution and is entirely accessible remotely. Extra features were released to make the employee self-service more user-friendly on mobile, such as mobile clocking requests.

Quinyx

Solution Overview: Quinyx is a WFM platform for enterprise businesses designed to help manage and optimize the workforce, improve profitability and keep employees engaged. Quinyx uses ML to develop and assign optimized schedules. As well as scheduling, Quinyx also supports task management, time tracking and absence management. Quinyx was launched in 2008.

Geographic Localization: Quinyx is localized for use in the U.S., Canada, the U.K., Germany, Austria, Switzerland, Spain, Portugal, France, Italy, Netherlands, Belgium, Luxembourg, Russia, Poland, Turkey, Greece, Sweden, Norway, Finland, Denmark, Japan, Korea, China and the Middle East.

Industry Specialism: Quinyx focuses on retail and has developed industry-tailored algorithms for labor forecasting, automated scheduling and automatic shift assignment.

Average Customer Size: The average customer size is from 1,000 to 40,000 employees.
Delivery Mode: Quinyx is available hosted via a multitenant cloud architecture. Releases are delivered continuously and on-demand.

Partnerships/Integrations: Quinyx supports integrations with the following HR and payroll vendors: ADP, Talentsoft, Sage, activpayroll, CatalystOne Solutions, Azets and Sympa. Furthermore, implementation partners include REPL, Axsium and Tieto/EVRY. And third-party integrators include Modulus Data and ConnectMyApps.

Recent Innovation and News: Quinyx has made product advancements in the area of AI by deploying ML labor forecasting, schedule creation and shift assignment algorithms and smart lists to help managers make the informed scheduling decisions. Quinyx has also helped deliver advanced forecasting reporting and analytics to help businesses understand how the platform is being adopted. Quinyx also undertook a full redesign of the mobile app and employee portal, as well as improving the overall user experience in the web platform.

COVID-19 Innovations: Quinyx delivered an automated report to its customers to help track potential COVID spread and absences related to COVID through the business. Communication tools and pulse survey functionality has also been enhanced to ensure employee safety and engagement and capture their feedback.

Remote Planning and Deployment of WFM Applications: Quinyx offers flexible implementation methodology to support remote deployment, including data gathering and training processes.

Reflexis Systems

Reflexis ONE: (Reflexis Workforce Scheduler, Reflexis Real-Time Task Manager, Reflexis Advanced Analytics and Reporting, and Reflexis AI Solutions)

Solution Overview: Reflexis ONE contains several functional modules that can either be sold together or separately. Workforce Scheduler, an AI-powered labor and store operations solutions is currently on version 4.1.12 R03. Workforce Scheduler provides budgeting, forecasting, optimized labor scheduling, time and attendance, employee self-service, and advanced reporting and analytics. Real-Time Task Manager (version 16.11 R03) incorporates workload planning, task distribution, completion and feedback of corporate- and field-generated tasks, as well as real-time system and device-generated tasks. Reflexis ONE has been deployed by more than 275 organizations. On 28 July, Zebra Technologies announced its intention to acquire Reflexis Systems. The acquisition was completed on 2 September.

Geographic Localization: Reflexis ONE has been localized and deployed in more than 65 countries across North America, Latin American, EMEA (Europe, Middle East, Africa) and the Asia/Pacific region.

Industry Specialism: Reflexis ONE serves customers in the retail, food service, hospitality, banking and some healthcare industries. The platform includes functionality to simplify operational execution, provides line of sight for field management and optimizes labor spend.
Average Customer Size: Reflexis has customers that range from 12 to 18,000 locations, and with 400 to more than 400,000 employees.

Delivery Mode: Reflexis ONE is delivered via the Reflexis Cloud platform. Reflexis facilities and cloud hosting centers are SSAE-16-, SOC 2 Type I- and SOC 2 Type II-certified. Reflexis provides a major upgrade annually.

Partnerships/Integrations: Point of sale (POS) integrations include custom-made (internal POS system), Micros, NCR, PCMS, Store-World and Windows XP-based EPOS tills. Reflexis has a standard integration with the Shifts application in Microsoft Teams. Additionally, Reflexis has numerous technology partnerships, including arm, CMI Time Management, FlexWage, IBM, Maze, Microsoft, MongoDB, One Door, Oracle, Pricer, ServiceNow, SMG, StrongPoint, Synel Americas and Zebra Technologies. Resellers include Seal Technologies (Brazil), Southern Technology Group (Chile & Peru) and RSi (Spain and Portugal).

Recent Innovation and News: Reflexis launched a suite of AI solutions that give customers insight into on-site execution and labor operations. The Reflexis AI solutions include:

- **Al Budget Planner** — Streamlines the budgeting process to create budgets for specific locations, departments or resource groups
- **Al Staff Planner** — Simplifies the process of identifying gaps, trends and opportunities in on-site staffing
- **Al Performance Manager** — Improves site performance by identifying patterns and exceptions in associate, manager and team performance
- **Al Decisions** — Improves business decisions through AI-enabled A/B testing, reducing the time and labor it takes to set up and conduct critical experiments
- **Al Digital Assistant (AIDA)** — A chatbot that responds to commands, delivering quick answers for users

Reflexis also launched Q-Suite, a set of solutions that include:

- **Q-Check** — Enables customers to create, review, and distribute organized and prioritized checklists
- **Q-Comm** — A solution for text messaging and broad-based communication
- **Q-Visual** — Allows customers to execute merchandise displays with mobile-first visual projects
- **Q-Walk** — Lets customers mobilize on-site audits and inspections
- **Q-Docs** — Offers document storage that consolidates documentation on a single platform with version control
COVID-19 Innovations: Reflexis has introduced touchless tablet clocks to reduce the risk of infection by eliminating critical high-touch surfaces at the store. Associates clock in and out for shifts and meal breaks by using 3D facial recognition on a tablet clock, voice control to enter ID and commands or scanning a QR code from a personal device. Furthermore, as customers reopen, it is imperative to manage on-site traffic to ensure social distancing and comply with regulations. Reflexis Appointments enables retailers to deliver a safe experience by allowing customers to book time slots to shop in-store, schedule curbside pickup, join on-site virtual queues to avoid standing in lines at the store, and schedule home delivery or in-home service.

Remote Planning and Deployment of WFM Applications: Reflexis implementations are currently being done remotely using GoToMeeting, Zoom and Microsoft Teams. Collaboration tools such as Smartsheet and Atlassian’s Jira Software are being used to enhance the client implementation experience, input process and partnerships. In addition, during this time, Reflexis has engineered a QuickStart model that offers customers a way to kick off a deployment via an online, self-guided system. This system assists customers through the selection, configuration and setup of business process templates to fit their organizational needs.

SISQUAL WFM

Solution Overview: SISQUAL WFM is composed of 15 distinct modules supporting a few of the following functions: forecasting, scheduling, shift fulfillment, time and attendance, task management, and expense management. SISQUAL has been active in the WFM market for more than 30 years and services more than 1,000 customers.

Geographic Localization: SISQUAL WFM is localized for use in Portugal, Spain, U.K., Germany, Italy, France, Poland, Turkey, Brazil, Mexico, Colombia, Saudi Arabia, Mozambique, Angola and Cape Verde.

Industry Specialism: Retail industry-specific functionality includes labor forecasting, shop profiling and cost analysis.

Average Customer Size: SISQUAL WFM customers range in size from 100 employees to 150,000 employees.

Delivery Mode: SISQUAL WFM can be deployed on-premises or on cloud and hosted by either Sisqual or a third party.

Partnerships/Integrations: SISQUAL WFM integrates with ~50 payroll and HR solutions, including but not limited to SAP, Oracle, Workday, ADP, Cegid-Meta4, Microsoft, Sage, AS/400, Senior and TOTVS.
Recent Innovation and News: Examples of recent enhancements to SISQUAL WFM include:

- Shift fulfillment based on volunteer point scoring stimulus
- Private system for workers’ announcements of available shifts for sale or for swap, and consequent shift bidding/swapping among colleagues prior to visibility by employer
- Automated geolocation presence/tracking
- Automatic Wi-Fi presence

In other news, SISQUAL recently won among the largest retail customer and employer (more than 100,000 employees) in Spain.

COVID-19 Innovations: SISQUAL WFM has recently developed a touchless system for the time and attendance suite through the mobile app using geolocation and Wi-Fi detection. SISQUAL has also developed a contact tracing system to track possible COVID-19 infections of healthcare workers. This includes the ability to predict the progression of COVID-19 infections among workers and patients.

Remote Planning and Deployment of WFM Applications: SISQUAL supports a completely remote deployment method for SISQUAL WFM. Furthermore, SISQUAL WFM can be deployed and used solely on mobile devices (smartphones and tablets), meaning that time clocks are not required as a part of the deployment.

Spica International

Time & Space WFM Platform

Solution Overview: The Time & Space WFM platform offers time and attendance, project-based time tracking, workforce scheduling, and access control capabilities. Time & Space consists of various functional modules, including All Hours, My Hours and Door Cloud. Time & Space software is natively connected with Spica time clock and access controller devices, which are Azure IoT certified. Various RFID, BLE and biometric credentials are supported. Time & Space is currently running version 11.0. Spica has 30 years of experience in the field of WFM and access control, with a footprint of approximately 6,500 customers, serving more than 1 million users.

Geographic Localization: Time & Space is available in 15 languages and is localized for use in more than 30 countries. These include Slovenia, Croatia, Serbia, Bosnia and Herzegovina, North Macedonia, Montenegro, Spain, Italy, Malta, Albania, Romania, Bulgaria, Hungary, Greece, Austria, Germany, Switzerland, Ukraine, the UAE, the U.S., and the U.K.

Industry Specialism: Examples of retail-specific functionality include dynamic scheduling and the ability to support complex worker agreements/schemes (manufacturing).

Average Customer Size: The average customer is from 500 to 1,000 employees in size.
Delivery Mode: Time & Space is available for deployment on-premises or hosted in either private or public cloud. The public cloud offering is a multitenant application hosted via Microsoft Azure.

Partnership/Integrations: Spica supports partnerships with SAP (SAP certified interface and SAP APPStore), Microsoft Azure (SSO with Azure Active Directory, Azure Marketplace, Microsoft APPSource, IoT certified WFM hardware), Genetec, Chipolo NXP, ASSA ABLOY Group, HID Global, TBS, Milestone, Famoco and Suprema.

Recent Innovation and News: Spica recently gained Microsoft IP co-sell status, meaning that Time & Space is now listed in AppSource and the Azure Marketplace. Spica also recently localized Time & Space for use in the U.S. In May 2020, Spica and the IBCS Group announced a strategic partnership to support a combined business opportunity in and around central Europe. Furthermore, a recent product enhancement to Time & Space includes the option to mandate the use of Bluetooth beacons to limit clocking in/out only when an employee is within a defined range of a beacon.

COVID-19 Innovations: Enhancements in response to COVID-19 include a new module “Short-time Work,” which enables planning and scheduling of short-time versus regular work, correct wage compensation and payroll for short-time work. Integration of thermal cameras with Time & Space to enable clock-in and access based on the temperature of the worker, contactless clock-in/out and access control based on use of mobile employee self-service in conjunction with (optional) Bluetooth beacons are also included.

Remote Planning and Deployment of WFM Applications: Spica supports remote deployment and support of Time & Space.

StoreForce

StoreForce WFM+

Solution Overview: Founded in 2010, StoreForce provides a WFM suite built specifically for specialty retailers. As well as time and attendance, absence management, and workforce scheduling, StoreForceWFM+ also offers forecasting, planning and data analytics. StoreForce also offers applications to support retail performance management, store execution and employee engagement.

Geographic Localization: StoreForce WFM+ has been deployed across 46 countries and is available in 19 languages. Country localizations include Australia, Brazil, Canada, China, France, Germany, Italy, Japan, Mexico, South Africa, South Korea, Spain, Sweden, Switzerland, Turkey, the UAE, the U.K. and the U.S.

Industry Specialism: StoreForce focuses exclusively on the specialty retailer sector. A key requirement of this sector is the importance of store associates in supporting the customer’s buying decisions and experience. StoreForce offers a suite of functionality to support this, including gamification/leaderboards to incentivize store associates. StoreForce WFM+ also
supports omnichannel, enabling workers to be scheduled based on the real-time needs of customers (e.g., e-commerce return, click and collect, and ship from store).

**Average Customer Size:** The average deployment of StoreForce WFM+ is an organization of ~3,000 employees or across 150 stores per customer. Typically clients will operate ~15 employees per store, with a mix of full- and part-time workers.

**Delivery Mode:** StoreForce goes to market with a hosted SaaS solution that is deployed in both a hybrid single tenant and Azure-based multitenant cloud modes. Locations of data centers include New Jersey, Frankfurt, London and Hong Kong. StoreForce has two releases per year, and all clients are upgraded semiannually.

**Partnerships/Integrations:** Current interfaces in production exist with ADP, Ultimate Software, Workday, Kronos, Oracle (PeopleSoft), Ceridian (Dayforce), CGI and SAP SuccessFactors.

**Recent Innovation and News:** StoreForce has been investing in ML-based workforce scheduling to improve the efficiency of store operation. Additional enhancements include employee engagement and communications (including gamification, leaderboards, communication apps), and continued development of the StoreForce mobile offering. Enhancement of the Stores as Markets offering addresses the challenges and increased use of digital transactions now occurring in stores (including funding and scheduling activities looking at Available Capacity prior to increasing labor spend).

**COVID-19 Innovations:** During and through the pandemic, StoreForce was widely used by customers as a means of communicating key changes to operations to staff. Furthermore, the scheduling and forecasting modules have been used to cater to the new challenges, such as highly variable customer demand, associated with operating a retail store in times of a pandemic.

**Remote Planning and Deployment of WFM Applications:** StoreForce is fully capable of remote project work and has completed implementations remotely as required. This includes key milestones such as business requirements sessions, application setup and configurations, development and testing of IT interfaces, administrator and “train the trainer” user training, as well as ongoing client health checks and support. StoreForce leverages tools like Zoom and Microsoft Teams to support remote deployment and training, as well as Zendesk to help manage client support.

tamigo

tamigo

**Solution Overview:** tamigo is a WFM vendor offering time and attendance, absence management, scheduling, communications, and forecasting under a single platform. tamigo first went live in 2006 and has 1,600 customers.
**Geographic Localization:** tamigo has been deployed across 20 countries, including the U.K., France, Germany, Spain, Italy, Portugal, Netherlands, Denmark, Norway, Sweden, Finland, Iceland, Belgium, Austria, Switzerland, Luxembourg, Czech Republic, Slovakia, Lithuania, Estonia, Latvia, Hungary, Greece, Australia, Hong Kong and Poland.

**Industry Specialism:** tamigo is focused on the following industries: retail, hotels, restaurants, cafés and healthcare service providers. A common requirement in these settings is the ability to balance the demand for labor with profitability and customer experience.

**Average Customer Size:** The average enterprise client is 4,000 employees in size. tamigo also offers an online sold-product, where the average client size is 40 employees.

**Delivery Mode:** tamigo offers customers a hybrid cloud model, where customer data is hosted via a single-tenant architecture, but the tamigo application itself is run on multitenant cloud architecture. The solution is updated with frequent product releases.

**Partnerships/Integrations:** tamigo integrates out of the box to numerous HR and payroll vendors, including SAP (ERP HCM and SuccessFactors) and Workday.

**Recent Innovation and News:** tamigo recently received €9.3 million of investment to expand growth across Europe. Recent product enhancements include iOS and Android mobile applications that enable manager and employee self-service and planning, and KPI customization that allows customers to use productivity, sales or other KPIs data as part of planning processes and workflow management.

**COVID-19 Innovations:** tamigo recently released the ability to enable COVID-19 absence management tracking, which can be used by customers to document and track who in their workforce is absent due to COVID-19 and/or related symptoms.

**Remote Planning and Deployment of WFM Applications:** tamigo supports remote deployment of the application. Examples of processes that can be run remotely include: kick-off workshops, configuration, training, and completion of implementation and roll-out.

**Workforce.com**

**Workforce.com**

**Solution Overview:** Founded in 1922, Workforce.com (previously Tanda) is a WFM suite provider. In addition to time and attendance, absence management and scheduling, Workforce.com also delivers mobility and ease of use, cognitive scheduling algorithms, labor compliance engine, and new methods for assessing frontline employee proficiency and culture. Workforce.com has more than 6,000 customers with more than ~250,000 active users.

**Geographic Localization:** Workforce.com is localized for use in 16 countries, including the U.S., the U.K., Canada, Australia, New Zealand, Germany, France, Belgium, Netherlands, Spain, Sweden, Denmark, Norway, Singapore, Hong Kong and Malaysia.
Industry Specialism: Workforce.com can meet the needs of multiple industries, including retail, pharmacy, manufacturing and others.

Average Customer Size: Workforce.com customers range in size from 1 employee to more than 10,000 employees.

Delivery Mode: Workforce.com is delivered as a multitenant cloud application. Updates to the software are released continuously.

Partnerships/Integrations: Workforce.com supports the following partnerships and integrations: ADP (PayForce, Run, WorkforceNow), Ultimate Software, Xero, Sage, MYOB and Paycom.

Recent Innovation and News: In May 2019, Workforce.com announced a merger with the WFM solution vendor Tanda. Following the merger, Tanda was incorporated into the Workforce.com brand in January 2020. Workforce.com has recently been included in the ADP Marketplace.

COVID-19 Innovations: In response to COVID-19, Workforce.com built Reopen, a capacity planning tool for businesses featuring a mobile interface for customers. Customers can request a time to come on-site in order to ensure safety and to meet local/national social distancing rules. Workforce.com has also optimized a GPS clock-in/out tool to be used at scale in order to allow employees to use the Workforce.com mobile app for clock in/out operations and avoid using shared time clock hardware. Additionally, Workforce offers functionality where employees can be asked if they have COVID-19 symptoms upon clocking into work. These answers can be used to inform management and prevent the employee starting work if they exhibit any symptoms.

Remote Planning and Deployment of WFM Applications: Workforce.com can be deployed and implemented completely remotely. Workforce.com supports remote deployments with a suite of instructional videos, live video conference training, product documentation and web-based customer support.

WorkForce Software  

WorkForce Suite  

Solution Overview: WorkForce Suite is a WFM solution specializing in compliance and workforce optimization in complex working environments. Version 20.2 of WorkForce Suite was released in May 2020. At the time of writing, more than 850 customers use WorkForce Suite for functions including time and attendance, forecasting, scheduling, absence management, fatigue management, crew management, and analytics.

Geographic Localization: WorkForce Suite is available in 24 languages and has been implemented in more than 60 countries. The countries include Australia, Belgium, Brazil, Canada, China, Croatia, Denmark, France, Germany, Hong Kong, India, Indonesia, Ireland, Italy, Japan, Malaysia, Mexico, Philippines, Russia, Singapore, South Africa, South Korea, Spain, Switzerland, Taiwan, the UAE, the U.K. and the U.S.
Industry Specialism: WorkForce Suite offers specialized functionality required in retail. WorkForce Suite is used to manage compliance with national and local laws, union rules and corporate policies across a variety of employee groups (salaried, hourly, and contingent workers). Additional capabilities include one-touch callout for filling open shifts, activity-based costing, crew management, job and vacation bidding, and multiple assignments. The solutions’ Forecasting and Scheduling capabilities enable retailers with hourly workers across multiple locations to create optimized, demand-driven schedules while taking employee preferences into account.

Average Customer Size: The average customer size is 14,000 employees.

Delivery Mode: WorkForce Suite’s Time and Attendance functionality is hosted via single-tenant cloud. WorkForce Software releases three updates per year. The solution’s Forecasting and Scheduling functionality is hosted via multitenant cloud, and updates to the solution are issued automatically every eight weeks.

Partnerships/Integrations: WorkForce Software has reseller agreements with Accenture, Cerner, SAP and Oracle. WorkForce Suite has developed more than 100 APIs, 35 web services, and 35 file-based interfaces, with more than 100 HR, payroll and other business applications. The vendor has certified integration with SAP SuccessFactors and maintains a library of preconfigured integration templates for other systems, including ADP, Avantas, Cerner Clairvia, CloudPay and Oracle. WorkForce Software also partners with Concrete for task management/retail execution, as well as RetailNext and ShopperTrack for traffic data.

Recent Innovation and News: In 2020, WorkForce Software delivered a new, mobile-first, suitewide user interface that is designed to improve employee experience. The new user interface connects with capabilities like the WorkForce Hub and Assistant. Additionally, WorkForce Software has introduced new ML and self-service capabilities for labor forecasting. Furthermore, WorkForce Software has executed a migration to the public cloud in partnership with Oracle. Leveraging the Oracle Cloud Infrastructure (OCI) WorkForce Software has extended its global reach and has seen improvements to the performance of the WorkForce Suite.

COVID-19 Innovations: WorkForce Software has responded to COVID-19 by developing two new capabilities:

- Pre-shift Health Screen — This uses a chatbot to automate a preshift health screening process. Before a shift start time, employees receive a notification on their mobile devices via the WorkForce Assistant or SMS to complete a health screen survey. Using the chatbot, the employee is asked questions, provides answers, and receives guidance to return to work or to take further actions, such as to self-isolate.

- Contact Tracing — In addition to reporting on where individual employees have worked, WorkForce provides customers with the ability to target individuals or groups of employees for follow up via targeted surveys delivered via the WorkForce Assistant or SMS. Surveys capture
Remote Planning and Deployment of WFM Applications: WorkForce Software can support remote deployments of WorkForce Suite. WorkForce Software delivers remote deployments through structuring frequent discussions/meetings and ensuring use of web-sharing applications. Further adaptations include delivering training/learning content in shorter but more frequent time slots via videoconferencing.

WorkJam

WorkJam Digital Workplace

Solution Overview: The WorkJam Digital Workplace (WorkJam DW) is a modular digital workplace platform designed to help organizations manage and improve the productivity of frontline workers. It extends traditional WFM components like time and attendance, scheduling and shift management with training and task management, chat-style internal communication with channels, broadcasts as well as surveys, and recognition and rewards. At the time of writing, 2 million frontline workers use WorkJam DW.

Geographic Localization: WorkJam DW supports 28 languages and is localized for use in 35 countries, including Australia, Brazil, Canada, China, France, Germany, Indonesia, Italy, Japan, South Korea, Mexico, Philippines, Poland, Russia, Singapore, Switzerland, the U.K. and the U.S.

Industry Specialism: Customers of WorkJam DW span retail, grocery, supermarkets, hospitality, healthcare, distribution centers, manufacturing, and financial services. Examples of industry-specific functionality include:

- Retail — Served with the ability to directly connect to the frontline without a need for workers to have a work email address.
- Grocery — Partners with e-commerce platform Digital Goodie to streamline execution of click and collect, as well as home delivery
- Food Service — Benefits from the Open Shift Marketplace technology, which offers market-fenced shift broadcasting for frontline staffing, bypassing the staffing agency

Average Customer Size: Customers of WorkJam DW range from organizations of 1,000 to 200,000 employees in size.

Delivery Mode: WorkJam DW is hosted as a multitenant cloud application. Upgrades occur bimonthly.

Partnerships/Integrations: Examples of strategic partnerships with other WFM solution providers include Kronos, Blue Yonder and Infor. In addition to WorkJam's general partnership strategy,
WorkJam has also developed a joint go-to-market strategy with Kronos for the food service industry.

Recent Innovation and News: WorkJam raised $50 million in Series-C Funding in April 2020 with participation from current and new investors. WorkJam acquired talent sharing platform Forge in February 2020. In January 2020, WorkJam launched a next-generation task management module that leverages adjacent modules included in WorkJam DW. Additional new features include location audits, task calendar, shift-level task assignment, task verifications and automated reassignment, and task assignment based on qualification and automated escalation for late and/or incomplete tasks, triggering corrective tasks for violations as well as training deployment for underperforming staff. In June 2020, WorkJam announced a new module enabling flexible access to earned wages (FEWA). The solution is an employer-funded, fee-free, employee benefit that accommodates banked and unbanked employees via optional branded debit cards.

COVID-19 Innovations: Examples of innovations by WorkJam in response to COVID-19 include health check attestation and contact tracing, contactless time clocks, digital communication and remote training capabilities, employee training certification with digital certificates, and multilocation crowdsourced schedules.

Remote Planning and Deployment of WFM Applications: WorkJam’s implementations support remote deployments.

Market Recommendations

- Reconfigure existing WFM solutions in order to ensure COVID-19 safe working practices.

- Identify and invest in functions that have the potential for the greatest impact on store managers and associate experiences — such as intelligent automation for scheduling.

- Identify ways to harness edge data within task management solutions to help associates work efficiently and easily.

- Revisit labor models to include third-party associates who can enable scale and flexibility, especially in crucial times of consumer demand.

Acronym Key and Glossary Terms

<table>
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<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>WFM Vendor</td>
<td>A vendor whose primary business and offering is WFM. This vendor usually addresses the needs of multiple industries. The result of this focus on WFM is typically deeper industry expertise and the delivery of more sophisticated functionality and focused solution development. However, this may result in increased subscription and integration costs for an additional vendor to serve you in conjunction with other HR/IT systems in operation.</td>
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<tr>
<td>HCM</td>
<td>A vendor whose primary business and offering is human capital</td>
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Vendor | management (HCM). This type of vendor has developed a suite of two or more HR functions, including core HR, payroll, talent management and WFM. The benefit of choosing this vendor type is the incorporation of a WFM function within the broader HCM suite, meaning fewer vendors to engage with and a highly integrated suite. The trade-off to this approach is that, in general, WFM functions offered by HCM vendors deliver less robust functionality compared to a WFM vendor (although there are exceptions). This often means that HCM vendors are most suitable for customers with relatively straightforward WFM requirements.

Business Application Vendor | Similar to an HCM vendor, but with the difference being that this vendor will offer additional business applications (including sometimes HCM) alongside a WFM product. This vendor type features similar trade-offs as an HCM vendor, although one difference is that this vendor type tends to have more of a focus for specific industries.

Retail Specialist Vendor | A vendor whose primary business and offering is to provide technology solutions for the retail industry that incorporate WFM functionality. The benefit of this vendor type is that the WFM application is incorporated into a solution with other functions, such as operations, meaning fewer vendors to engage with and more integrated systems. The challenge of this vendor type is that, due to the specialism that this vendor has developed in its WFM offering, it may be suitable only for a specific portion of the workforce, for example, in-store associates. This will, therefore, require the organization to engage with multiple WFM vendors if it needs to have more than retail workers covered by a WFM application.

**Evidence**

1. “Thousands of Jobs at Risk at Sainsbury's,” BBC.

**Note 1**

**Representative Vendor Selection**

The vendors presented in this Market Guide represent the largest vendors in this market. Furthermore, Gartner has included vendors of note for specific regions and, in some cases, areas of functionality. Readers should be aware that this market is highly fragmented, and in some cases organizations may have very niche WFM requirements. As such, there are likely to be vendors not included in this research that are suitable for deployment.

**Note 2**

**Gartner’s Initial Market Coverage**
This Market Guide provides Gartner's initial coverage of the market and focuses on the market definition, rationale for the market and market dynamics.

**Recommended by the Authors**

- Hype Cycle for Retail Technologies, 2020
- Market Guide for Smart Robots in Retail
- Cool Vendors in Retail: Meeting Customer Basic Expectations Is More Important Than Ever
- A New Normal: Retail Store Associate Playbook Post-COVID-19
- Take a Human-Centric Approach to Empower the Workforce With AI
- Prepare, Adapt, Transform: Enabling the Retail Associate's New Reality
- Market Guide for Workforce Management Applications

**Recommended For You**

- Hype Cycle for Retail Technologies, 2020
- Lessons From Luxury Retail — Younger Generations Lead the Way
- Retail Scenarios for 2025 and Beyond: Strength Builds With Human-Centric Experiences
- Retail Scenarios for 2025 and Beyond: The Future Is Yet in Your Power
- Retail Scenarios for 2025 and Beyond: Dexterity Coordinates Activities Behind the Scene to Deliver Enhanced Customer Experiences

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