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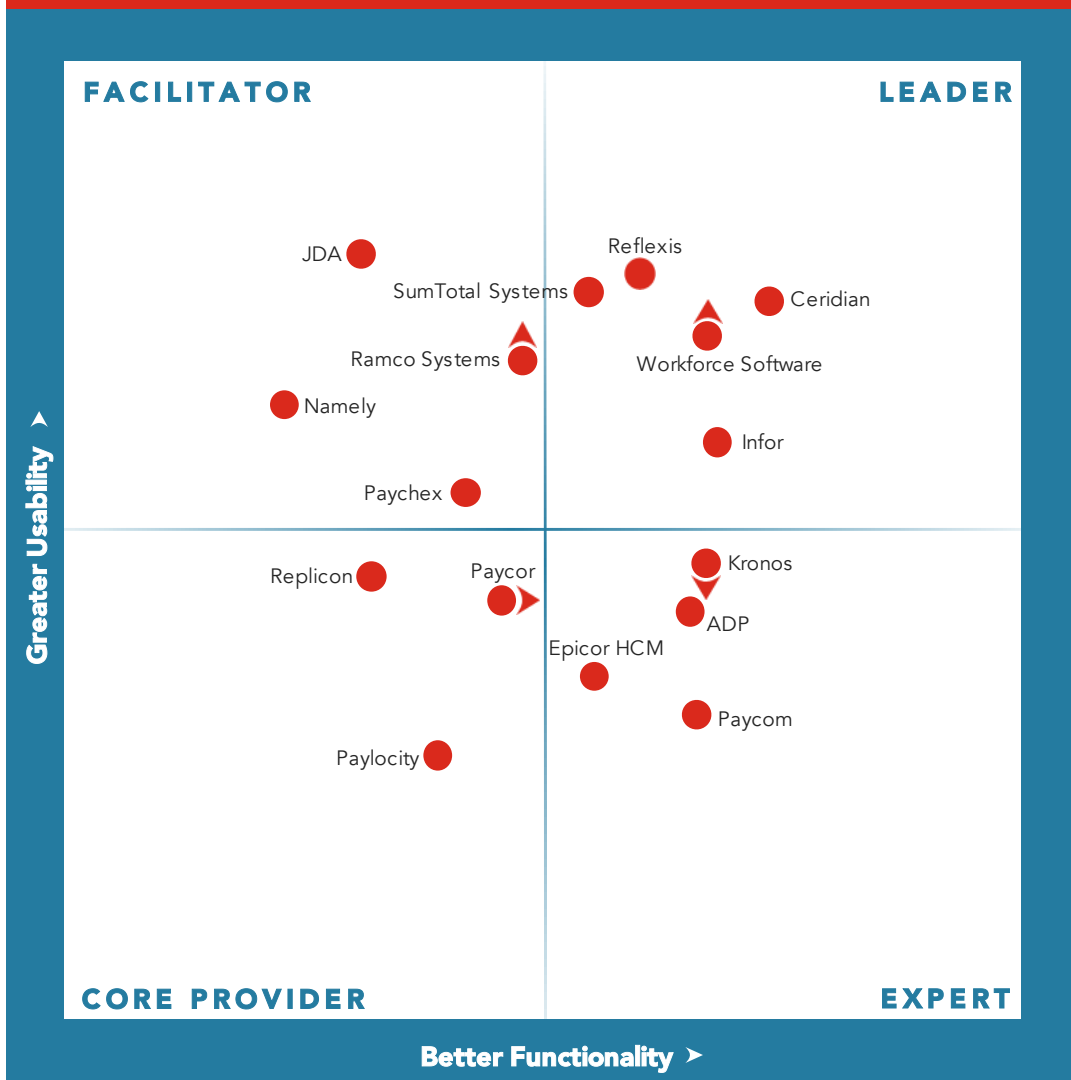
WFM TECHNOLOGY VALUE MATRIX 2019

ANALYST

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THE BOTTOM LINE

As companies seek to manage increasingly tight labor resources, modern workforce management (WFM) solutions can be both a differentiator in attracting and retaining talent and a key to optimizing scheduling to reduce overtime and staffing gaps. The market is fairly divided between those WFM vendors that support high complexity and multiple geographies and pay rules, and those that offer less robust capabilities at a much more attractive price point. Leaders in both camps are investing in usability, self-service (particularly around scheduling), and embedded analytics to move toward more granular optimization and forward-looking planning.



MARKET OVERVIEW

In this Technology Value Matrix, Nucleus evaluates several solutions that help organizations manage their workforces more effectively. The Matrix positions vendors in the market based on their delivery of value to customers through the functionality and usability of the software (Nucleus Research S142 – *Understanding the Value Matrix*, September 2018).

As one of the largest line items in many organizations' budgets, payroll impacts every employee—and workforce management (WFM) application requirements have moved beyond just reliability and support for complexity and compliance. Of all the areas of enterprise applications, WFM has the largest legacy footprint: customers still relying on mainframe-based or other maturing applications because of the risk-averse nature of payroll managers. That said, as these applications have been highly customized and many original managers who deployed and had intimate knowledge of the applications reach retirement, Nucleus is seeing an increasing appetite for selection of cloud-based solutions that have greater flexibility and usability and require less internal resources—both from an information technology (IT) and a payroll or finance perspective—to support.

Key trends driving investment in functionality in WFM among leaders in the Matrix include:

- **Scheduling optimization.** Rules-based or predictive analytics-driven scheduling optimization enables companies to reduce potential overtime, reduce overall scheduled hours, and increase scheduling managers' productivity. They also drive improved employee retention. Nucleus expects leaders to continue to invest in this area and move toward prescriptive and artificial intelligence (AI) driven models to further automate and provide transparency into scheduling decisions and processes while reducing overall payroll.
- **Self-service support.** Enabling employees to view, swap, and gain more control of their payroll and scheduling is becoming an important differentiator, particularly in industries where seasonality or high turnover is common. Nucleus sees analytics' impact in their area as well, with push notifications and recommendations for both managers and employees guiding scheduling optimization while decentralizing control.
- **On-demand pay.** With many of the leading vendors introducing either organic or partner-provided pay-on-demand capabilities, Nucleus expects it will be a growing differentiator for businesses looking to compete with gig economy jobs. Leaders in this space, however, will have to provide not just the functionality but the coaching and best practices to help ease payroll managers into the concept and how to operationalize it effectively in their organizations without additional risk or staff burden.
- **Deployment accelerators.** The biggest concern about changing WFM providers is the risk of disruption. Leaders are investing in automation, industry blueprints and data models, and other prebuilt capabilities that reduce the need for mapping, configuration, and customization of WFM solutions and accelerate time to value while reducing risk.

Usability investments are also key, both for managers and payroll administrators and self-service users. Mobile access is increasingly table stakes, not just a “nice-to-have,” and leading vendors are investing in user-focused design and customizable views and options for individual employees and managers that expect to be able to view, manage, and predict their schedule and paycheck from any mobile device.

LEADERS

The following vendors are Leaders in the 2019 WFM Value Matrix: Ceridian, Infor, Reflexis, SumTotal Systems, and Workforce Software.

CERIDIAN

With Dayforce, Ceridian provides full-breadth WFM on a single application producing a single dataset governed by a single rules engine. The vendor continues to reinforce and innovate functionality. In WFM. Managers can build schedules using a variety of different methods depending on the needs of their organization, including with predictive technology. Managers also can ensure that they are adhering to company budget guidelines. Visual alerts flag labor costs, such as overtime, that are outside the budget and need to be resolved before pay can be finalized. Managers can then make changes to shifts to ensure that labor costs are within budget. Employees can also use the Dayforce mobile app for full self-service. With Dayforce being a human capital management (HCM) platform spanning human resources (HR), payroll, benefits, talent management and WFM, updates to net pay are made automatically, in real-time, whenever a time, benefits, or HR record is changed. Recent announcements include:

- The introduction of Dayforce Assistant, the vendor’s intelligent voice- and chat-enabled assistant that uses natural language processing (NLP) to understand requests and provide meaningful responses, accessed from the Dayforce mobile application.
- Other new capabilities include Dayforce Benefits Decision Support, which allows employers to provide employees with additional support to help them make choices when selecting their benefits, and Dayforce On-Demand Pay, which allows employees to access their earned wages, as needed, outside of the regular pay cycle, through the Dayforce mobile app on their phones.
- The launch of native payroll for Australia, which represents a milestone in Ceridian’s global expansion strategy that has seen Dayforce deployed around the world, with the platform in use in over 50 countries.

- The acquisition of Clearview Logix, a Richmond, Virginia-based leading decision-support analytics company, and certain intellectual property assets, including paysa.com, from Paysa, a Palo Alto, California-based AI-powered personal career advisor. This will expand Ceridian's already strong analytics and AI offerings to customers.

INFOR

For WFM, Infor relies on the strength of a growing collection of cloud solutions tailored to industry verticals, with 18 currently available. For example, the Health CloudSuite combines functionality for WFM with supply chain management (SCM) and financials for health-focused organizations. The CloudSuite strategy at Infor underscores the vendor's ability to meet users' needs across the enterprise, not just in WFM or HCM. Infor's verticals approach provides specific best practices and services for industries that can face unique challenges around workforce needs.

Infor has kept pace with other leaders in the market, investing heavily in AI and analytics. Coleman draws on NLP, image recognition, and machine learning to work in concert with Birst, the cloud-based analytics platform the vendor acquired in 2017. These predictions and recommendations reflect data not only in WFM, but elsewhere across the Infor enterprise applications and from outside the system. Nucleus's analysis of Infor's customers in WFM found that users see marked increase in productivity. Users also express satisfaction with the scheduling solution, functionality for employee self-service (ESS) and manager self-service (MSS), and the mobile friendliness. Strong investments in usability have helped users generate strong returns without intensive training investments. Additionally, users continue to move from legacy on-premises solutions to Infor's cloud offerings, while net new users tend to select the cloud as well. In May, Infor announce it was considering a potential initial public offering (IPO) in 2019 or 2020, subject to market conditions.

REFLEXIS

Reflexis is new to the Value Matrix this year and offers a complete solution through its cloud based Reflexis One platform. While Reflexis started with Task Management, the Reflexis One platform now offers a comprehensive solution allowing retailers to simplify store operations while optimizing labor spend. The labor operations components include optimized scheduling, ESS, time and attendance, along with analysis and reporting.

Reflexis Scheduling provides forecasting, labor budgeting and scheduling designed to optimize labor spend while increasing customer engagement, conversion, and sales. Reflexis task management provides the most task functionality of any solution on the market, and the combination of task management and labor optimization make it a strong

option for retail organizations. The task management solution, in particular, allows managers to organize, automate, rank, and complete everyday tasks faster, allowing managers to focus on higher value-added tasks

Users note Reflexis's strong usability and fast implementations that drive fast payback periods. User adoption is aided by their single MyWork user interface and mobile first design which has produced a differentiated mobile offering. Recently Reflexis launched Reflexis One for Banking, the organization's first new vertical, which focuses on the specific needs and pain points of retail banks.

SUMTOTAL SYSTEMS

SumTotal Systems is a strong option for employers with complex needs in scheduling, particularly when it comes to complex union regulations. Aside from the content found in Skillsoft, SumTotal has robust native capabilities in learning. These intertwine with WFM to support complex rules in scheduling. For example, a user may at once prompt an employee to renew his or her license to operate a forklift and disallow the scheduling of this employee until the system confirms renewal of this license—helping maintain compliance and avoid fines and accidents.

Users of SumTotal may obtain the very latest version of the software delivered via a software-as-a-service (SaaS) model on multitenant cloud, privately hosted by SumTotal, or on-premises. This is significant as it helps to minimize version sprawl by making it easy for users, no matter their circumstances, to ditch an old iteration should they wish. SumTotal encourages, but does not force, them to do so. Dashboard widgets and other platform developments have increased both functionality and usability, delivering stronger results to users.

The vendor's first launch of 2019 focused on functionality updates, including the ability for customers to easily integrate SumTotal talent into internal HR and business systems, as well as the ability for employees to create personalized development plans, something that Nucleus has found is particularly attractive to millennial workers. Updated mobile optimization provides full services to employees on the mobile application. The last year has also seen SumTotal expanding its international presence, with larger overseas deployments in Europe and Asia-Pacific.

WORKFORCE SOFTWARE

WorkForce Software covers time and attendance, staff scheduling, absence and leave management, labor analytics, and fatigue management, providing all new deployments in a modern cloud-based, SaaS-delivered platform. For HR and payroll, WorkForce integrates readily with whatever the user has already deployed or will deploy in the future, via a

growing library of application programming interfaces (APIs), as well as Web Services and file-based integrations. Meanwhile, scheduling functionality from WorkForce is designed to handle exceptionally high levels of complexity, and for several years, the vendor's go-to-market strategy has reflected this strength. WorkForce has presently announced a new integration of its scheduling capabilities with time and attendance from Oracle.

The ability to comply with the Americans with Disabilities Act (ADA) is now built directly into the solution. The vendor has also launched managed services for customers that would rather not have to deal directly with updating their system. Instead, WorkForce will manage this process and the system itself for them. One of the strongest new features is the Android OS Mobile user interface (UI) for crew management. It builds an entire timeline for a crew down to what job each team member has done and for how long. The new offering is for industries such as agriculture, energy or utilities, financial services (e.g., insurance), and construction, where fluid groups of field workers need a way to manage time with and without an Internet connection.

At this year's WorkForce VISION conference, the vendor announced the launch of a new Service Architecture, as well as a redesigned UI. The service architecture will focus on core functionality of time and attendance, as well as forecasting and scheduling. Data feeds into integration platforms that allow users to pull data either into the WorkForce data mart or their own data warehouse. The new UI is mobile native and gives users the ability to personalize their interaction pages. The UI includes an urgency model, called the WorkForce Assistant, which is designed to make managers more productive in the moment, providing them with a prioritized list of tasks to be completed across the WorkForce Suite. The solution also includes chatbot integration, allowing users to receive immediate answers to critical questions—such as who's on the schedule today—via Google Home or by integrating with Workplace by Facebook. The solution is also embeddable in other environments or customizations, allowing organizations to make an interface truly unique to its organization.

EXPERTS

Experts in the 2019 Workforce Management Technology Value Matrix include ADP, Epicor, Kronos, and Paycom.

ADP

ADP offers three multitenant cloud solutions for HCM that cater to employers based upon size. ADP Run is intended for companies with one to 50 employees, Workforce Now for

firms with 50 to 3,000 employees, and Vantage HCM is designed for organizations with over 3,000 employees. Each of these solutions offers a wide array of functionality. For workforce management, ADP offers time and attendance tracking, scheduling, absence management, compliance, and analytics, all integrated with payroll and HCM. ADP's global footprint make it one of the most apt solutions for global pay. Users have noted issues with usability, resulting in ADP's drop in the Value Matrix. In the past year, ADP made a number of advancements, including:

- ADP partners with Microsoft Dynamics 365 Business Central to provide mutual clients with all in one business and HR functionality that includes finance, operations, sales, payroll, time and attendance, tax services, and benefits and talent management.
- The vendor partners with collaboration hub Slack to enable mutual clients to provide their workers with access to HR and payroll information such as pay notifications and details, and time off balances and requests.

EPICOR

Cloud-based WFM functionality is available as part of a suite that integrates with other Epicor solutions. WFM functionality covers payroll, benefits administration, time and attendance, absence management, and scheduling. The vendor also offers predictive analytics to identify staffing needs and provide insight into things like staffing demand and trends. The time and attendance component of the Epicor HCM suite will feed information into another payroll application, if the employer uses something else.

Epicor is strongest as an enterprise resource planning (ERP) vendor, and offers WFM as part of Epicor HCM, whose installation base is primarily in the manufacturing, distribution, retail, and services industries for users already using Epicor ERP. Users may link WFM or HCM with their other Epicor applications. They may also use Epicor HCM to manage their compliance with employment law. The solution offers both ESS and MSS. The linking provides strong features for those organizations with complex ERP related workforce needs. The scheduling system continues to struggle when faced with more complex needs, although it offers fine functionality for straightforward deployments. This past year, Epicor announced the launch of its new AI-based virtual agent, Epicor Virtual Agent (EVA), developed to execute tasks and recommend, predict, and adjust actions within set parameters. EVA appears on-screen as a virtual assistant that users can access via text or voice.

KRONOS

In November 2017, the vendor launched Workforce Dimensions, a bona fide SaaS-delivered solution for WFM residing on Google's multitenant cloud architecture. While this was a vast

improvement over Kronos's on-premises offerings, end users still have some issues with usability and strong complaints about customer service. Kronos continues to lead market share around scheduling and time and attendance, and in the past year, SAP announced that Kronos will be the vendor's preferred partner for time and attendance bolt-ons. In addition, in the past year Kronos announced a number of additional features to Workforce Ready via the Workforce Ready People Analytics Suite:

- Workforce Ready Employee Perspectives analyzes platform data to quantify employee attributes such as performance, reliability, and risk for better decision making.
- Workforce Ready Succession Planning provides organizations with configurable charts and metrics to better understand the effects of organizational growth.
- Workforce Scheduler enables managers to better deal with unexpected absences and other staffing decisions by matching available employees to open shifts.
- A new user interface with enhanced functionality will be available to all Workforce Ready customers starting this fall.

PAYCOM

The Paycom architecture offers a single application producing a single database rooted in the employer's origins in payroll. In early May 2018 the vendor revamped functionality for ESS for both the desktop and mobile domains of Paycom's application. The UI provides key functionality to employees, including shift clock-in and clock-out, expense report management, timesheet manipulation, etc.). As Nucleus's analysis has shown in general, a workable, modern portal for ESS translates to gains in productivity.

Paycom remains a strong option for small and midsize businesses (SMBs). While lacking the depth that some of the enterprise-grade WFM vendors in the Leader quadrant have, Paycom offers a competitive solution that meets the typical SMB's fundamental business needs. In addition, in the past year, Paycor released a machine learning technology with its Employment Predictor technology, that provides insight into the risk of employee flight. These calculations are based on a proprietary algorithm. Paycom has also continued to grow and expand with several new offices across the United States.

FACILITATORS

Facilitators in the 2019 Workforce Management Technology Value Matrix include JDA, Namely, Paychex, and Ramco Systems.

JDA

The JDA solution is tailored for the needs of retailers by focusing tightly on their complex needs in scheduling and associated time and attendance. The system allows employers to set fixed shifts for employees who want it and finds the best work for that person to do during these fixed times. Functionality covers long-range planning, taking historical and real-time data into account. Scheduling also includes employee attributes, to help ensure that the employer has the properly qualified people on the job. JDA also offers ESS with mobile based functionality around shifts and communication.

Dashboards give users side-by-side comparisons of locations that have seen recent overstaffing and enable them to adjust these schedules as needed. JDA's Store Optimization solution helps to ensure that the right employee receives the right task at the right time and, moreover, assigns tasks to available staff with the appropriate skill sets based on the staffing schedule created. JDA's solution connects with its SCM offering, a point of particular benefit for the retail market.

NAMELY

Namely offers a managed version of its HR technology platform called Managed Services. This includes core functions such as payroll, benefits administration, and compliance, along with features such as time keeping. Customers have dedicated account managers who can do everything from run payroll to track benefits. Also offered is Namely Analytics, which includes detailed reports such as salaries, job changes, and attrition. The vendor's solution can handle users who employ up to approximately 3,000 in staff; employers in its installation base average 200 in staff, and the vendor says the solution's optimal customers employ anywhere from 20 to 2,000 in staff.

For WFM, the Namely suite encompasses payroll, core HR, time and attendance, and benefits administration. Last year the vendor introduced time management and, recently expanded this to mobile for employees and managers. Updates to the iPhone application continue, and the solution is now iPhone X-compatible.

The UI is modern and allows employees to see everything in a calendar view whose look resembles popular scheduling tools and synchronizes with Microsoft Outlook and Google Calendar. For reporting, the vendor offers enterprise-grade reporting to small business users, with more than 80 standard reports available for use. This past year Namely

announced that it has joined the Google Cloud Partner Program as a Cloud Identity technology partner. This collaboration will give Namely customers greater options to unite their HR and identity solutions.

PAYCHEX

For WFM, Paychex Flex encompasses benefits administration, time and attendance, compliance, core HR and, of course, payroll. Every user has a dedicated support specialist who is available 24-hours per day every day of the year, including weekends and all holidays. Nucleus's analysis finds users noting usable dashboards and a streamlined integration with key applications, notably the general ledger (GL). Paychex can handle time and attendance for organizations employing up to 10,000 in staff. Advanced scheduling and budgeting, as well as analytics, are available too. Paychex ESS enables users to see and manage essentials of employment such as pay and rosters. Paychex acts as a broker or agency, one of the top 25 in the industry. Moreover, the vendor has been a professional employer organization (PEO) for years.

Paychex also offers functionality around new hires. As a customer's new hires come on board, Paychex immediately cross-references the pertinent information to see whether any tax credits are available to the hiring organization. The Paychex General Ledger Service (GLS) also integrates with Sage Intacct. In the past year, Paychex has made the following announcements:

- Paychex Flex HR enhancements that bring performance management, workflow approvals, real-time analytics, and a configurable events calendar to the platform, all with ESS capabilities. In addition, Paychex added workflow approvals and new real time analytics features to its Live Reports functionality.
- These new features and functions are in addition to an already-deployed learning management system (LMS), which the company unveiled at HR Tech 2018.

RAMCO SYSTEMS

Ramco Systems is a cloud-based, SaaS-delivered solution for HCM, enterprise asset management (EAM), and ERP. The vendor also provides software for logistics management and for the aviation industry, where it offers a particularly robust solution. WFM-related components found in the solution are core HR, global payroll, and time and attendance with ESS and MSS throughout the suite. With EAM and ERP offerings, for example, the vendor is a theoretical competitor to Infor, Oracle, and SAP (with or without SuccessFactors) in deals where prospects want an enterprise-spanning suite that includes WFM.

The vendor provides global payroll in 43 countries, which puts Ramco on similar footing with ADP and SAP in global payroll coverage. It is important to note that, despite this, Ramco works with Ceridian, Paylocity, and Paychex et al. to provide payroll in the United States and United Kingdom. Ramco brings credible competition to Workday with core HR and integration with the GL. The vendor also provides analytics in the form of Ramco Insights. Much of the functionality centers on predictive capabilities around employee attrition. Customers that Nucleus spoke with noted the vendor's powerful analytics as the decisive factor in persuading them to choose Ramco. As for mobile, the native application is available for Android, iOS, and Windows. For those organizations with a large overseas workforce, Ramco provides a strong offering for WFM and connected global pay. This means users avoid the expense or hassle of having to integrate with multiple third-party vendors across global locations. In addition to adding geo-fencing, the vendor also expanded the following functionalities:

- Facial Recognition. Ramco's Facial Recognition based Time & Attendance, christened RamcoGEEK!, provides one-time registration unlocks access at multiple locations in large offices, saving precious time and solving the problems associated with employee tailgating and unauthorized entry.
- Ramco's Chia Bot. Ramco has introduced a range of bots to address specific scenarios and offer customization. These bots can support all languages under Microsoft's Luis platform. Three such bots developed this year are the Transactional Bot, Support Bot and the Policy Bot. Ramco now offers about 30 bots for supervisors, suppliers, customers, job candidates, ticketing bot and on-boarding. These self-service functioning bots are available in platforms such as Facebook, Microsoft Teams, Skype, and WeChat.
- Voice UI. Ramco's Voice UI that can help users plan their calendar, apply for leave, get instant approvals and even check their pay slip by simple voice commands.

CORE PROVIDERS

Core Providers in the 2019 Workforce Management Technology Value Matrix include Paycor, Paylocity, and Replicon.

PAYCOR

Paycor is a cloud-based suite for WFM that covers payroll processing, core HR, time and attendance, reporting, benefits administration, and compliance reporting. Most Paycor customers employ approximately 50 in staff, and many of Paycor's customers are SMBs

implementing their first-ever technology for WFM. Paycor provides a strong offering for these SMBs offering functionality that leads to automation. It is a particularly popular solution for small franchisees.

The vendor's mobile functionality helps employees with actions such as clocking in and out of their shifts, looking up their work schedules, viewing action balances, requesting time off, and viewing their paychecks and pay history. Paycor is particularly well-suited to several niches and industry verticals, especially nonprofits and small healthcare-related organizations. This past year, Paycor announced the launch of Dedicated Relationship Manager to its Partner Loyalty Program. This new role provides a single point of contact between Paycor and brokers to ensure mutual clients are getting the support required. In addition, Paycor also announced:

- **Attendance Management:** Allows employers to automate their attendance management policies. Attendance Management also includes the ability to include ad-hoc none attendance policy violations.
- **Time Dashboard:** The time dashboard is intended for use by managers, and payroll administrators. It provides a single page that alerts users in real time to all of the various Workforce Management tasks that need to be performed in the system, and a centralized point of navigation allowing them to move quickly between tasks.
- **Paycor Mobile:** Paycor's mobile application now has the ability to alert managers when they are required to perform Workforce Management tasks with similar capabilities to the Time Dashboard. Paycor's mobile application now allows managers to correct timecard issues, update or add missing punches, approve timecards that have exceptions, as well as manage time off requests.
- **Accruals:** Paycor's accruals module has been rewrite, removing its dependency on payroll and adding real-time capabilities. The new accruals module retains all of the capabilities in the legacy accruals module but adds support for: balance rollovers and transfers, daily accruals, real-time deductions, balance caps and floors, as well as hourly based accruals.

PAYLOCITY

Paylocity is mostly for medium- and enterprise-sized users and includes payroll, core HR, benefits administration, and time and labor. Payroll has data integration, which helps ensure regulatory compliance. Additionally, Paylocity is a registered reporting agent for the Internal Revenue Service and can provide users with a complete tax filing service.

Paylocity offers MSS and ESS, as well as more than 100 standardized reports and simplification for the onboarding process to reduce time associated with new hires. Paylocity also provides a year-end dashboard for HR to engage in tax reporting or prepare W-2s.

There is extensive automation in Paylocity of activities around expense filing, reporting, and reimbursement. This is particularly benefit for those organizations moving from manual processes. This past year, Paylocity acquired BeneFLEX HR Resources, Inc. BeneFLEX administers employee benefit plans, including flexible spending accounts (“FSAs”), health savings accounts (“HSAs”), health reimbursement accounts, (“HRAs”) and COBRA for mid-market clients across the Midwest and California.

REPLICON

Replicon is a provider of WFM encompassing fully automated Time and Attendance, absence & leave management, job costing, complex scheduling, global gross payroll, workforce analytics, and global compliance solutions. Replicon’s new customer acquisitions and roadmap demonstrate further investments to fully enable deskless, mobile and global workforce management with a modern user interface and advanced capabilities such as Time Intelligence, Location Intelligence, Crew Management, and Global Compliance Dashboard for updates and notifications.

Replicon’s Time and Attendance solutions comprise cloud-based functionality and applications for automating time tracking related to employees, projects, tasks, activities, jobs and schedules. Replicon’s platform facilitates capturing time for multiple purposes and consumption for either paying employees, billing customers, job costing or accounting for shared services. To further streamline enterprise time tracking, Replicon launched Time Intelligence platform to automatically capture and analyze sources of time using employees’ mobile or desktop devices across the global organization. Time Intelligence Platform leverages Internet of Things (IoT), AI, machine learning and deep learning techniques to connect to any potential structured or unstructured time-related data sources for automatic time capture, classification, and contextualization to distill insights to your ecosystem. In the realm of providing an AI-inspired source of data for Time Intelligence, Replicon has functionality for facial recognition and chatbots.

Alongside the launch of Time Intelligence, Replicon has added capabilities to facilitate end-to-end deskless workforce management. To further enhance deskless workforce management, Replicon introduced Crew Time Management solutions that simplify the complexities around mass time capturing, attribution, costing and billing for jobs or projects involving large teams working in the field.

Replicon provides global pay rules library, time off and absence rules, and work and rest time enforcements for over 70 countries around the world. Replicon has introduced Compliance Dashboard which provides a summary and detailed view of pay rules updates and status visibility. Replicon offers a Global Compliance subscription and notification service to keep the businesses continually informed about statutory and regulatory changes and their impacts on pay rules.