DominateSmartSite
Transforming the way industries work

How to Choose IoT-based Workforce Management Solution for Your Business?

The Next-Generation Workforce Management System

Contents

Introduction

If you're looking for your first automated Workforce Management (WFM) solution or looking to upgrade from an existing one, the evaluation, selection, and implementation process can be a long-term strategic decision for your organization. There are many differentiating factors to consider when choosing a Workforce Management solution. It is crucial to go beyond marketing hoopla and get to the system's core performance and features. Not all solutions are created equally. You need to make sure it is feature-rich, flexible, robust, and designed with the latest state-of-the-art technologies. You put your business's heartbeat into a system; you should be able to rely on its accuracy, reliability, and operational excellence as your business grows.

Challenges

Workforce management is a highly complex endeavor, so if the below challenges sound familiar, you are not alone. Almost all operations looking into adapting an automated workforce management system are suffering from multiple challenges:

- Who is on site or offsite (site map and geo-location)?

- Where is your workforce at any given time?

- How much time is your workforce spending in unproductive zones?

- What trade resources are available for job allocation?

- What resources have the subcontractors placed at the site?

- How much do your subcontractors cost you per shift?

- Who has not completed safety training?

- Is everyone accounted for in an emergency evacuation?

- If missing, where are they now?

- Who are high safety risk individuals in your operation?

- What is the actual productivity vs. planned?

- Is the project on schedule? If not, what is causing the delay?

- Is the project on budget? If not, where has the cost overrun?

- How much time is each foreman spending with his team?

- Which foreman is the most productive?

- What project is the crew working on? Who is currently idle?

- How many man-hours have been spent on a task?

- What are the actual labor hours/costs vs. planned?

- Are the subcontractors billing correctly? Are they on schedule?

- What are the cost accounts and deviations from planned?

What is a Workforce Management System?

A smart workforce management system is a combination of software, hardware, and services that manage workers in different work locations, whether indoor or outdoor, within company premises. The primary purpose of such a solution is to help managers and team members to enhance efficiency, safety, collaboration, and stay connected, wherever they are. Using mobile devices, users can have full visibility of their workforce and workflow progress, enabling them to improve business processes.

If chosen correctly, digital workforce management can improve compliance and consistency. Instead of spending long hours on paperwork, managers and other team members can focus on the task at hand to boost productivity and minimize risks.

Smart workforce management systems can be useful in labor-intensive industries, such as manufacturing, construction, oil and gas, healthcare, mining, etc. Workforce Management implementation can be a time-saving process leading to accuracy, safety, and operational excellence if chosen based on realistic requirements and critical concerns of the workforce management field.

Welcome to the
Next-generation
Workforce Managment
System

USER LOGIN

Remember   Forgot password?

LOGIN
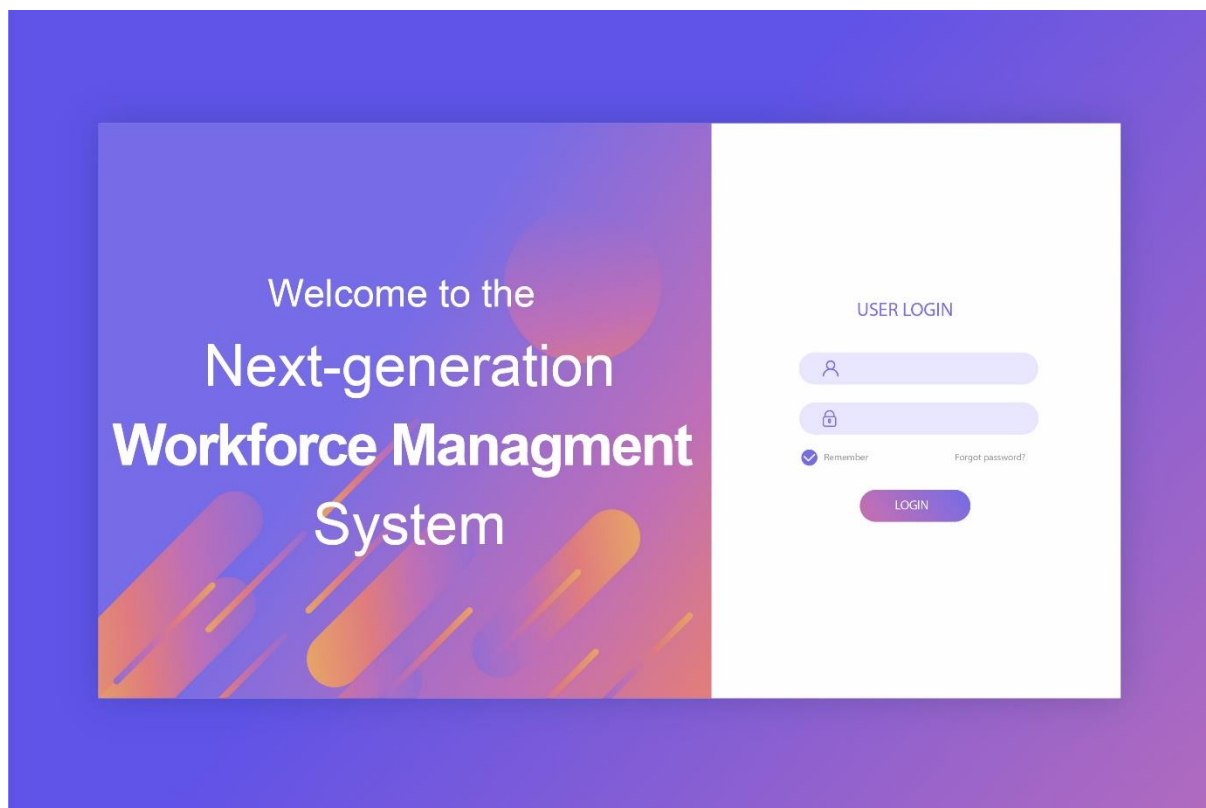
The Workforce Management Evolution

It was just a couple of decades ago when managers used to create their schedules with pen and paper. At that time, if team members were to be informed of a change, it had to be announced on a board pinned to a wall somewhere that could go unnoticed quickly. If anyone relied on his memory, it would be forgotten; and if he wrote it down on a piece of paper, it would be lost in no time. You had to spend hours on the phone to communicate. Things were not easy, and it was frustrating.

Today, however, the pen and paper method are abandoned. Even spreadsheets and legacy systems are a thing of the past. IoT Technology has changed everything. There are smart workforce management systems available today that automate schedules, alerts when actual hours and costs exceed the planned, offer visibility and control into the amount of workers' overtime, reduce errors by integrating payroll with time reporting and scheduling, and a lot more.

A carefully selected IoT-based Workforce Management solution can deliver the flexibility a business needs in its journey towards success. Using the ecosystem of cloud computing, communication protocols, mobile devices, and sensors gathering workforce data, managers can track workforce performance for the tasks assigned. Users can log the start and completion of tasks, communicate with each other, and be notified of their assigned tasks in real-time. IoT technology has helped companies to improve safety, throughput, efficiency, and costs.

In this eBook, we try to point out some of the essential key features to consider when evaluating the next-generation Workforce Management solution for your business.

Multi-Site Workforce Management

You may only have one site at the moment, but you may grow and end up with multiple sites and locations. A desirable workforce management solution helps you manage your workforce within various sites. It provides you with full visibility into the project's workforce and productivity issues so you can make smarter and quicker decisions based on data-driven insights.

Attendance Management

Attendance management is the most crucial part of a workforce management solution. Your next-generation workforce management solution ought to provide you with full visibility over your workforce attendance issues. The following features help you in gaining visibility and control over attendance issues:

Site Access Control: Touchless passive or active RFID-based scanning provides quick workforce entrance and exit. This feature helps manage multiple entrances/exits during a shift change when hundreds or even thousands of workers report to work while the same numbers are leaving.

Remote Clock-in/Clock out: Your next-generation workforce management solution is worth your investment if it allows you to efficiently manage your remote field workforce. It should be able to clock-in/out using workforce mobile device. The system should capture their picture and GPS location and update the attendance system.

Roll-Call: The system should allow you to efficiently perform wireless roll-call and location occupancy control during a shift or event.

Proof of Presence: A great feature a workforce management system should have is registering a security guard's presence at a location on a pre-scheduled time during a shift or within 24 hours. It can alert you if they do not report at the designated location at the scheduled time.

Labor Cost Management

Complete Labor Pay Rates Tracking: The workforce management system should help you achieve the desired labor cost efficiency by allowing you to enter salaries, overtime, weekends, holiday, and benefit pay rates for each employee or group of the workforce.

Workforce Cost Tracking: Using AI-based algorithms, the system should automatically determine regular and overtime hours and provide the actual cost of your labor per shift, relieving you of deciphering attendance data to drive down labor costs. Attendance data per shift level (instead of 24 hours) helps you analyze costs and inefficiencies with much more detail.

Subcontractor Cost Tracking: The system should also provide full visibility of your subcontractor's crew, the workforce deployed and hours logged. You should be able to quickly reconcile the subcontractor's billing against the actual data to minimize the labor costs.

Jobsite Costing Visibility: The workforce management solution should help you track labor/overtime hours & costs in different ways, as it suits your needs and preferences. For example, per shift or per date range, per project, per work package or per tasks, etc.

Subcontractor Management

Your next-generation Workforce Management system is supposed to provide full visibility of a subcontractor's performance by tracking the completed work, delays, cost overruns, and deviations from the agreed contract.

Safety Management

Safety management is an essential part of any workforce management system. It should provide you with features and capabilities that assure safety and reduce risks in your workplace.

Safety Training: Safety should be at the core of workforce management. Safety training is paramount to achieving required safety standards. The system should have a training module to track safety and skill training and auto remind the individuals of their next scheduled training sessions.

Fall Detection and Panic/SOS: Automated man-down (fall-detection) and Panic/SOS emergency alerts help safety personnel to expedite the emergency response to an affected person. The next-generation workforce management system must have this crucial feature so it can help in the reduction of hazardous incidents or near misses as they happen. It should help in root-cause analysis of events to improve the site's safety. It should identify high safety risk individuals in your operation.

Mustering & Emergency Evacuation Management: Safe and timely evacuation is the cornerstone of any emergency management plan. At the time of emergency, you should be able to account for people present and missing at each assembly area (safe zone). Utilizing mobile devices, managers should be able to quickly view the missing person's personal information and current location so that the rescue team can be dispatched to the right location without wasting time.

Jobsite Mass Alert Messaging System: Sending mass SMS mobile text or email alerts to your workforce and project management team might be necessary at times. The real-time mass notification system helps communicate with the field for weather alerts and time-sensitive messages designed to keep your workforce safe and informed.

Unauthorized Access Control: Security should be an essential consideration in your workforce management system. The workforce management system should be able to manage access to restricted locations. As soon as an unauthorized person gets close to a location that he/she is restricted from entering, the system should generate predefined sets of alarms to notify the authorities.

Alerts and Notifications

The Workforce Management system should incorporate configurable alerts and notifications to help supervisors address urgent issues on the spot. The system should allow you to effortlessly control restricted access to areas or equipment, monitor suspicious activities around sensitive zones, and alert operators accordingly.

Productivity Management

Productivity Management should be an integral part of a workforce management solution. It should allow you to track, monitor, and manage project productivity issues with ease. Below is a set of features that can guarantee productivity management enhancements in your operation:

Productivity Tracking: Project Productivity provides real-time tracking and visibility of the most critical aspects of any project: schedule, labor, costs, and the completed work quantity. Planners and managers should be able to define projects with unlimited work packages. Work Packages should break down into individual Tasks with their own set of planned schedules, hours, costs, and work quantity for more precise control.

Real-Time Work In Progress Visibility: The system should provide a real-time percentage of completion for each task, work package, and projects. Utilizing an integrated project and work package tree, you should be able to identify at any time the delayed tasks affecting the delivery of subsequent work packages and projects. The system should present an opportunity to deal with the causes of delays before the project incurs financial losses.

Quantity Capturing: Using mobile devices, project engineers or supervisors should capture the quantity of production or enter the percentage of completion for each task, allowing the system to monitor and report any deviation between planned quantity and actual completed quantity in real-time.

Labor Allocation: Using mobile devices, foremen or supervisors should be able to allocate the workforce to each task, allowing the system to track direct labor hours and report any deviation with planned labor hours.

Labor Cost Tracking: The system should allow supervisors to accurately track the labor costs for each task, work package, or project per shift. The labor cost data can also be used to cross-referencing with HR to calculate correct salary amounts or to reconcile subcontractor billings.

Project Management Integration: System integration is an essential feature for your next-generation Workforce Management system. It should be integrated with the most popular project management applications such as Oracle Primavera P6, Microsoft Project, and have restful APIs to integrate with any application easily. It should also incorporate intelligent Import/Export Wizard tools, allowing the import and export of data to any application or in .csv format.

Site Communication: The workforce management system should allow you to capture images, videos, voice, and voice-to-text messages and email to anyone at the site. The attachment will become a part of the project, work package, or task for historical traceability. The communication tool can provide proficiency by allowing the user to collaborate with anyone within the chain of command.

Digital Documents

Digital documents can be manuals, drawings, schematics, procedures, floor plans, videos, images, etc. The next-generation workforce management solution should have all these readily available on the user's mobile device anywhere he/she goes. The user should easily take new photos, mark on the image, and upload them as an attachment to projects or work packages. The application should provide comprehensive traceability of any work package or task for future reference.

Dashboards

Dashboards are called management candy for a reason. They provide a bird-eye view of your entire operation. They combine real-time data from every aspect of your operation and display relevant, actionable intelligence, and help you track stats and key performance indicators (KPIs). Your next-generation workforce management solution should effectively present the data in a quick, easy-to-scan format with the most relevant information understandable at a glance.

Security Features

An ideal workforce management solution should provide security features that can be used to set up access permissions to different roles and specific users. Sometimes you need to restrict the users' access to certain parts of the application. The system should enable you to define which users have permission to access which menus of the application. It is also essential to

define their permitted level of access to that menu (if they can only view or are allowed to edit, delete, etc.).

Technology Agnostic

The next-generation workforce management solution works best if it is IoT-based and operates with Barcode, passive RFID, BLE, LoRa, Sensors, and GPS devices at the same time. Each technology delivers unique value to your operation, and your workforce management solution must be ready to help you meet your current and future challenges with ease. It is essential to ensure that the solution will not become obsolete in the future and adapt to work with any particular technology type without suffering from compatibility issues.

Plug & Play Industrial IoT Hardware

The next-generation workforce management solution must be integrated with pre-configured IoT hardware designed for harsh industrial environments, a type of IoT hardware ready to use and ready to scale. This will make the installation quick and easy (less than 2 minutes per device). The IoT devices should utilize long-lasting batteries to alleviate the need for an AC power connection or network connectivity, which helps deliver immediate ROI.

IT Infrastructure Requirement

The next-generation workforce management solution is supposed to collect and transmit an immense amount of data without burdening your network bandwidth. It must be able to operate in harsh environments and consider all possibilities that can affect its performance. It is a fact that Wi-Fi is not the most reliable communication protocol and that there are areas where stable Wi-Fi connectivity is not available. Therefore, your next-generation workforce management solution should be able to work completely independent of your network infrastructure (Wi-Fi or Internet). It should not have a point of failure, meaning that no data should ever be lost due to a disruption in the network connectivity. The workforce management solution must be able to update the configuration of its sensor network over the air. This feature allows you to change the settings of the IoT devices remotely and while they are functioning.

Self-Diagnosis System

You don't want to install a system that you have to watch. The workforce management solution is supposed to alleviate your daily burden and not add another layer of complexity. We all know hardware can become defective. Even worse, it can function sporadically. Your IoT system must be robust and up and running without any glitches. The workforce management solution should have self-diagnosis tools that monitor the health of your IoT system 24/7. It should notify you if a sensor is running low on battery or has lost communication with the IoT network. The support

staff should view the entire IoT network in a live dashboard, diagnose the problem, and fix the issue quickly, accurately, and efficiently. These preventive measures minimize support costs while maintaining minimal interruption to your operation.

Environment Monitoring

People and the environment in which they work are inseparable elements that play an essential role in the operation, safety, and quality of production in any industrial setting. The ideal workforce management solution monitors the environment in real-time and alerts the personnel if a pre-defined anomaly is detected. The solution should monitor temperature, humidity, dangerous gases, or even a leak.

System Cost

The right workforce management solution is not the one that makes you go bankrupt. After all, it should reduce your operational costs and complexities and not add to them. To achieve lower prices, the workforce management solution vendor must be the IoT hardware and software manufacturer instead of a solution integrator. They should offer an end-to-end solution through multiple subscription models, including no upfront cost, to help you get up and running with zero CAPEX and risks.

The Features and Capabilities of a Workforce Management Solution You Will Need

Besides protecting your workforce, environment, and productivity against many known and unknown threats, an ideal workforce management solution should offer features that allow you to build a portfolio of data within your organization that you can leverage to drive success and achieve an immediate ROI with simultaneous improvement in both productivity and safety.

Below is a checklist that you can use when evaluating a Workforce Management solution for your business:

Workforce Management

- ✓ Attendance Management
- ✓ Remote Workforce Management
- ✓ Labor Cost Management
- ✓ Subcontractor Management
- ✓ Safety Management
- ✓ Productivity Management
- ✓ Real-Time Dashboards
- ✓ End-to-End Security
- ✓ System Integration
- ✓ Multi-site Workforce Management
- ✓ Real-time Alerts and Notifications.
- ✓ Environment Monitoring.
- ✓ Digital Documentation.
- ✓ BI database for customized BI dashboards.

IoT Hardware

- ✓ Technology Agnostic. Be able to work with Barcode, passive RFID, BLE, LoRa, Sensors and GPS.
- ✓ Plug & play pre-configured IoT hardware.
- ✓ Quick installation.
- ✓ No need for site's network.
- ✓ Long lasting battery-based sensors eliminating the need for AC power.
- ✓ Self-diagnosis IoT network management.
- ✓ Zero investment and risks.

Start leveraging the power of Dominate Smart Workforce Management

If you are looking for a ready next-generation Workforce Management solution to tackle your most difficult challenges, the Dominate Smart Workforce Management solution is the one. Out of the box, it will immediately help you achieve magical results without ever becoming obsolete.

The Dominate Smart Workforce Management is tailored for various industries (manufacturing, construction, energy, utilities, mining, and other labor-intensive industries). It can support your workforce and productivity optimization with rapid and low-cost implementation.

The system provides real insight into your workforce management activities and helps you manage your entire enterprise from everywhere, at any time. You can trust it to keep your operation up and running, enhance workplace reliability, and guarantee safety. Leverage the Dominate Smart Workforce Management's powerful capabilities and features to ensure your business success now and well into the future.
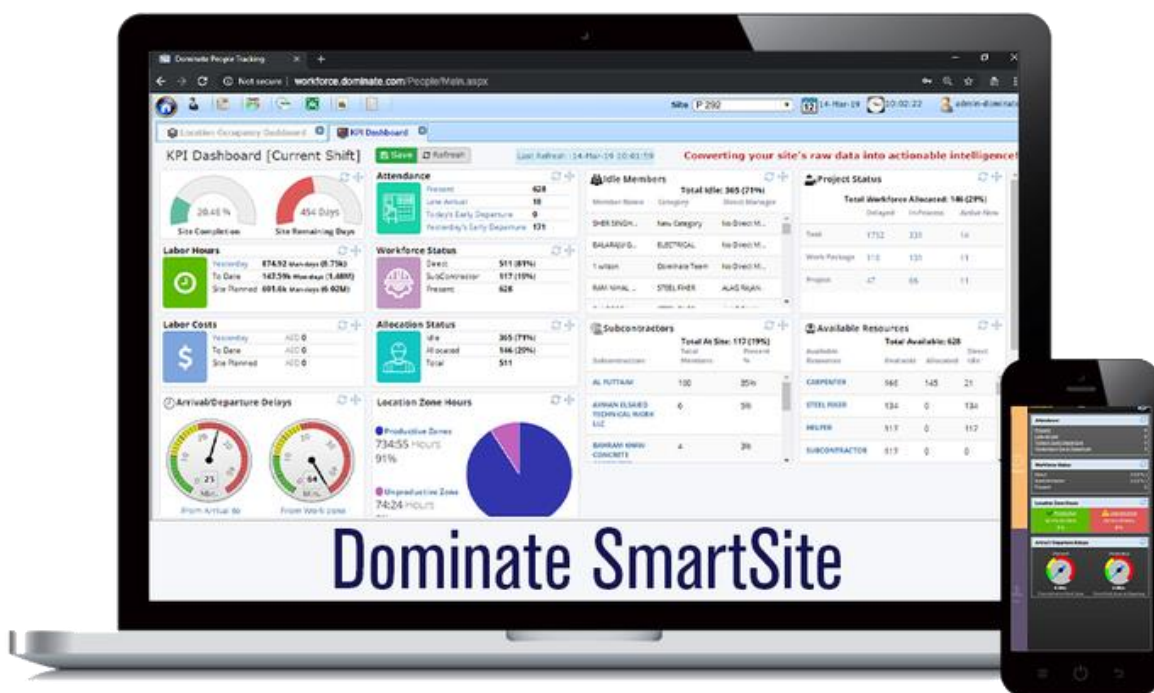
About Dominate SmartSite

Dominate Smart Site is the leading global provider of industrial IoT enterprise solutions for the manufacturing, facility/property, construction, energy/utilities, mining, and heavy industries. We bring real-time visibility to all aspects of your site by wirelessly connecting your assets, machines, workforce, materials, productivity, and environment to the digital world. Customers trust us to connect their shop floor and field operations to enhance productivity, improve profitability, and effectively elaborate across the broad ecosystem.

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