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## **Key Elements of a CMMS RFP**

*This is an example of what your organization should look for in maintenance management software solutions and the type of detail that should be included in your RFP submission guidelines:*

### **1. Work Orders**

* **Comprehensive Work Order Lifecycle Management:** The CMMS should support the entire [work order](https://www.maintenancecare.com/free-work-order) lifecycle, from initiation and assignment to completion and documentation. This includes:
	+ **Automated Work Order Creation:** Ability to automatically generate work orders based on various triggers like preventive maintenance schedules, meter readings, or alerts from IoT devices.
	+ **Prioritization and Scheduling:** Tools to prioritize work orders based on urgency, criticality, and available resources. Integration with scheduling tools to optimize technician time and minimize downtime.
	+ **Detailed Work Order Information:** Capture all essential details within a work order, including:
		- Asset information (name, location, history)
		- Problem description and reported symptoms
		- Priority level and due dates
		- Assigned technician(s)
		- Required parts and materials
		- Estimated labor hours
		- Safety procedures and checklists
	+ **Real-time Tracking and Updates:** Enable technicians to update work order status in real-time, record labor hours, add notes, and attach images/videos. Provide managers with visibility into work order progress and resource allocation.
	+ **Historical Work Order Data:** Maintain a complete history of all work orders, including associated costs, labor hours, and parts used, for analysis and reporting.
	+ **Audit Logs:** Tracking of every change made to a work order along the way to prevent the loss of information

### **2. Preventive Maintenance**

* **Flexible Scheduling:** The CMMS should offer flexible options for scheduling preventive maintenance tasks, including:
	+ Calendar-based scheduling (daily, weekly, monthly, etc.)
	+ Meter-based scheduling (triggering maintenance based on usage, run hours, etc.)
	+ Condition-based scheduling (using sensor data or inspections to predict maintenance needs)
* **Automated Reminders and Alerts:** Send automatic notifications to technicians and managers about upcoming preventive maintenance tasks.
* **Preventive Maintenance Libraries:** Provide pre-built templates or libraries of common preventive maintenance tasks for various asset types.
* **Maintenance Plan Optimization:** Tools to analyze preventive maintenance data and optimize schedules to minimize downtime and maximize asset life.

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#### **3. Asset Management**

* **Centralized Asset Registry:** Maintain a comprehensive database of all assets, including:
	+ Asset identification (name, description, model number, serial number)
	+ Location information (building, floor, room)
	+ Associated documents (manuals, warranties, certifications)
	+ Maintenance history (work orders, inspections, repairs)
	+ Performance data (metrics, KPIs)
* **Asset Hierarchy and Relationships:** Ability to define asset hierarchies and relationships (e.g., parent-child relationships, system dependencies) to understand asset dependencies and facilitate maintenance planning.
* **Asset Lifecycle Management:** Track asset lifecycle costs, from acquisition to disposal, to make informed decisions about maintenance, repair, or replacement.
* **Condition Monitoring:** Integration with condition monitoring systems (e.g., vibration analysis, oil analysis) to proactively identify potential issues and schedule maintenance accordingly.
* **Barcode and QR Code Scanning:** Support barcode and QR code scanning for efficient Asset management.

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### **4. Inventory Management**

* **Real-time Inventory Tracking:** Maintain accurate inventory records, including:
	+ Part numbers, descriptions, and quantities
	+ Location information (warehouse, stockroom, etc.)
	+ Reorder points and lead times
	+ Vendor information and pricing
* **Automated Reordering:** Trigger automatic purchase orders when inventory levels fall below predefined thresholds.
* **Parts Usage Tracking:** Link parts usage to specific work orders to track consumption and costs.

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### **5. Mobile Access**

* **Native Mobile Apps:** Provide dedicated mobile apps for iOS and Android devices, optimized for different screen sizes and user roles.
* **Offline Functionality:** Enable technicians to access and update information even when offline, with automatic synchronization when connectivity is restored.
* **Mobile-Specific Features:** Offer features specifically designed for mobile use, such as:
	+ GPS location tracking for technicians
	+ Barcode and QR code scanning
	+ Voice-to-text input for work order updates
	+ Push notifications for work order assignments and reminders
* **Security and Access Control:** Implement robust security measures to protect sensitive data accessed via mobile devices, including user authentication and data encryption.

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### **6. Reporting and Analytics**

The CMMS must provide robust reporting and analytics software capabilities to enable data-driven decision-making and continuous improvement in maintenance operations. This includes:

**1. Variety of Report Types:**

* **Pre-built Reports:** Offer a library of standard reports covering key maintenance metrics, such as:
	+ Mean Time To Repair (MTTR)
	+ Mean Time Between Failures (MTBF)
	+ Preventive Maintenance Compliance
	+ Work Order Completion Rates
	+ Asset Downtime Analysis
	+ Inventory Turnover
	+ Maintenance Costs
* **Customizable Reports:** Allow users to create custom reports tailored to their specific needs, with options to:
	+ Select data fields and filters
	+ Define report formats and layouts
	+ Schedule reports for automatic generation and distribution
* **Dashboards and Visualizations:** Provide interactive dashboards with customizable widgets and visualizations (e.g., charts, graphs, gauges) to present key performance indicators (KPIs) in a clear and concise manner.

**2. Data Analysis and Insights:**

* **Trend Analysis:** Enable users to identify trends in maintenance data, such as recurring failures, increasing downtime, or rising costs.
* **Root Cause Analysis:** Facilitate root cause analysis by providing tools to drill down into data and identify the underlying causes of maintenance issues.
* **Predictive Analytics:** Offer capabilities for predictive maintenance, using historical data and machine learning algorithms to forecast future failures and optimize maintenance schedules.

**3. Data Integration and Export:**

* **Data Integration:** Seamlessly integrate with other business systems (e.g., ERP, accounting) to access and analyze data from multiple sources.
* **Data Export:** Allow users to export data in various formats (e.g., CSV, Excel, PDF) for further analysis or reporting in other tools.

**4. Accessibility and Collaboration:**

* **Role-Based Access Control:** Ensure data security and confidentiality by implementing role-based access control, allowing users to access only the reports and data relevant to their roles.
* **Report Sharing and Collaboration:** Enable users to share reports with colleagues, stakeholders, or external partners.

**5. Key Performance Indicators (KPIs):**

The CMMS should track and report on key performance indicators (KPIs) relevant to maintenance operations, including:

* **Asset Reliability:** MTBF, MTTR, Availability
* **Maintenance Efficiency:** Planned Maintenance Percentage, Wrench Time, Schedule Compliance
* **Maintenance Costs:** Maintenance Cost per Asset, Labor Costs, Parts Costs
* **Inventory Performance:** Inventory Turnover, Stockouts, Carrying Costs
* **Safety:** Incident Rate, Near Misses, Safety Training Compliance

