



Using IBM Maximo Asset Management to manage all assets for hospitals and healthcare organizations.



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Executive summary

Effective asset management is critical for hospitals and healthcare organizations. These organizations face a variety of economic and regulatory pressures that make effective asset management a key part of their success. IBM Maximo® Asset Management helps healthcare institutions track, monitor and manage all the assets on which their current and future success is built and with a clear focus on patient care and service delivery.

Maximo Asset Management is based on a single software technology platform, allowing organizations to view all of their asset information and help identify untapped potential. Easier access to information within the solution helps ensure that equipment is ready for use when needed and assets are utilized more effectively. The solution can help organizations increase equipment availability, reduce operating and maintenance costs and support higher quality requirements.

Healthcare business objectives include maximizing service quality, reducing risk of non-compliance, and managing costs to reduce asset investment while assuring the availability of all assets. Maximo Asset Management helps organizations manage equipment across departments. It also helps the organization manage and monitor efforts to comply with governmental and industry regulations, especially with regard to reporting requirements. This same management ability helps healthcare organizations optimize the use of currently available technology, both in IT and in sophisticated monitoring devices.

Using Maximo Asset Management, organizations can better coordinate needs of diverse physical facilities while maintaining specific functions within these different facilities. The solution also includes specific functionalities for healthcare: calibration of instruments, tools and special equipment; support for electronic signatures, records, and audits; support for asset-related corrective and preventive action (CAPA); validation project support; and integration with other document management systems.

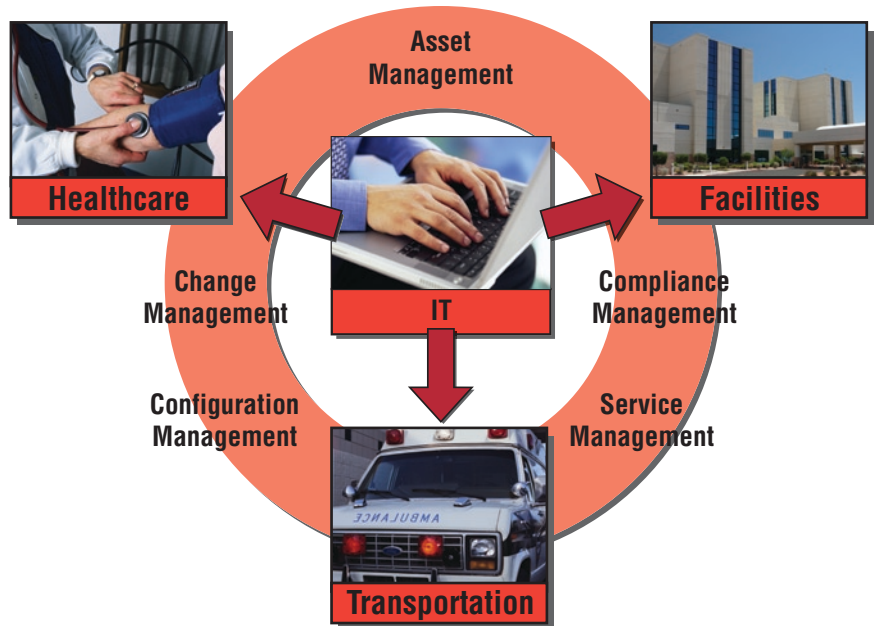
This white paper shows how IBM Maximo Asset Management is a proven solution that can help organizations stay competitive and responsive to business drivers such as utilizing assets more effectively, taking steps to minimize risk, and better managing regulatory compliance efforts.

Introduction

For today's hospitals and healthcare organizations, effective asset management is essential. Delivery of medical care requires an increasingly sophisticated mix of instruments and equipment. As more individual healthcare organizations consolidate into larger organizations, assets may also need to be managed across multiple facilities. At the same time, increasing requirements from regulatory bodies can make documentation of asset management processes and activities even more critical.

With IBM Maximo Asset Management, hospitals and healthcare organizations can track, monitor and manage all of their critical assets. The Maximo software portfolio enables hospitals and healthcare organizations to better respond to changing market requirements by helping them increase equipment availability, reduce operating and maintenance costs, and support higher quality requirements to improve patient care and satisfaction.

Figure 1: IBM Maximo Asset Management



IBM Maximo Asset Management provides a single, unified platform that supports a wide range of asset and service management functions for hospitals and healthcare organizations.

Highlights

Maximo Asset Management delivers a comprehensive view of production, facilities, transportation and IT assets across your organization.

Asset management from IBM Maximo

Part of the IBM Tivoli® software portfolio, Maximo Asset Management takes the power, performance and possibilities of asset management to a new level. Built on a single software platform, Maximo Asset Management delivers a comprehensive view of production, facilities, transportation and IT assets across your organization. This perspective allows you to see all your assets and help identify the untapped potential of these assets. You gain the knowledge and control you need to more closely align your organization's goals with your overall business goals.

Maximo Asset Management consists of six key management modules: asset, work, service, contract, materials and procurement management. You can use Maximo Asset Management to help maximize the performance and lifetime value of complex assets to help:

- Improve return on assets (ROA).
- Decrease costs and risk.
- Increase productivity.
- Improve asset service delivery responsiveness and revenue.
- Manage regulatory compliance efforts.
- Lower total cost of ownership.

Highlights of the Maximo solution

Maximo Asset Management can help hospitals and healthcare organizations to:

- Increase equipment availability.
- Reduce operating and maintenance costs.
- Support and maintain higher quality and service delivery requirements.

Highlights

Maximo Asset Management provides a single location to allocate assets ranging from facilities to transportation to IT.

Maximo Asset Management provides a single location to allocate assets ranging from facilities to transportation to IT. Healthcare organizations can maximize asset utilization and performance while helping to monitor and better manage regulatory compliance and reporting efforts. Information is readily accessible to hospital administration as well as hospital staff and equipment maintenance personnel. This easy access to information can help facilities ensure that all equipment is prepared and ready for staff and patient use. When facilities can more accurately monitor the availability of assets, it can help them to improve labor efficiency and optimize materials usage.

Supporting healthcare business objectives

Healthcare organizations are looking for information solutions to support their changing business objectives. These organizations place a priority on business drivers that range from maximizing the quality of services delivered to mitigating the risk of non-compliance to ensuring the availability of all assets. In addition, these entities want to manage costs and reduce asset investment while applying advanced management strategies. For some institutions, it is also important to enable scientific creativity within corporate guidelines.

In addition to addressing these business drivers, with Maximo Asset Management, healthcare senior management can also better manage asset performance during the life of the asset. By managing critical assets more closely throughout the life of the asset, healthcare organizations can work to increase shareholder and stakeholder value by:

- Improving availability of all their critical and strategic assets.
- Reducing costs of acquiring, managing and maintaining those assets.
- Better managing compliance requirements from regulatory entities.

Highlights

Maximo Asset Management helps organizations better manage materials, compliance efforts, technology and facilities.

Managing assets across the organization

Maximo Asset Management allows organizations to support their business objectives and respond to business drivers by helping them to better manage materials, compliance efforts, technology and facilities throughout the organization.

Managing materials

Managing equipment in hospitals and healthcare organizations can be challenging. Equipment costs are high, resulting in a growing demand to manage expenditures by utilizing equipment efficiently. This efficient use can be complicated as equipment assigned to one department is often used by multiple departments. While it can be difficult and time-consuming to coordinate equipment use across multiple departments, failure to adequately coordinate use can cause delays and additional costs.

Healthcare equipment ranges from equipment used in procedures (such as surgical supplies), to testing equipment (such as ultrasound machines), to equipment for direct patient care (such as monitoring equipment or other equipment used in intensive care units). With Maximo Asset Management, organizations can track, monitor and manage critical or strategic assets such as instruments, tools, and measurement and test equipment. Monitoring these assets can help organizations improve their operational equipment efficiency (OEE) and their ROA.

Managing compliance efforts

Hospitals and healthcare organizations must comply with a variety of governmental and industry regulations. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) requires reporting compliance for Medical Equipment Inventory as well as Medical Equipment Maintenance Plan standards. In addition to helping organizations better manage this JCAHO requirement, Maximo Asset Management can help organizations address Health Insurance Portability and Accountability Act (HIPAA) and Food and Drug Administration (FDA) rules.

Managing technology

Hospitals and healthcare organizations rely heavily on technology. This technology extends beyond operations to technology that is integral to the delivery of medical care. Maximo Asset Management combined with Tivoli IT Service Management solutions help hospitals and healthcare organizations manage all their IT and IT-related services including service-level agreements and contracts.

Maximo Asset Management was developed to align with IT Information Library[®] (ITIL[®]) standards. ITIL is a framework of best practices and standards that supports the delivery of high quality IT services. ITIL includes extensive management procedures that promote quality IT services through consistent, documented and repeatable processes.

Highlights

Maximo Asset Management can help hospitals and healthcare organizations manage and maintain diverse physical facilities at different locations.

With Maximo Asset Management, organizations can optimize the use of current technologies. At the patient care level, hospitals and healthcare organizations have to manage a new wave of equipment that is increasingly computerized. Technology assets now include radio frequency identification (RFID) tags as well as new patient monitoring systems. Hospitals have to determine best practices for inspection and maintenance of these assets. Work orders must be prioritized based on risk: what is the risk associated with failure of life support equipment; and how can inventory of critical items be both monitored and minimized? In addition, facilities have to be able to manage third-party outsourcing agreements while addressing JCAHO, FDA and HIPAA requirements.

Managing facilities

Hospitals and healthcare organizations are frequently comprised of diverse physical facilities at different locations. Not only can the physical plants differ widely throughout an organization, the particular facilities within each physical building can run the gamut from traditional offices to clean rooms. Some facilities focus on testing or diagnostics, such as laboratories or imaging centers. Others are comprised of patient care areas that range from emergency departments to in-patient rooms. Maximo Asset Management can help hospitals and healthcare organizations manage and maintain the specific functions of these different facilities. This efficient management in turn helps the organization to fulfill its overall business goals and objectives.

Specific functionality for healthcare

Maximo Asset Management is a complete asset management solution for life sciences enterprises such as hospitals and healthcare organizations. In addition to the core solution, there is special functionality available for use in the life sciences industry, which can also be applicable in hospitals or other healthcare organizations. These functionalities include:

- Calibration with the option to use mobile calibration capabilities.
- Support of electronic signatures, electronic records, and electronic audits as required by FDA guidelines.
- Support for asset-related corrective and preventive action (CAPA).
- Validation project support.
- Integration with engineering or other document management systems.

Calibration

Calibration is a critical function for organizations that operate in regulated environments or in situations where tools and instruments are an integral part of maintenance to deliver quality output. Healthcare organizations often include laboratories with a variety of instruments, measurement and testing equipment that require exact calibration. Calibration is a key capability and can be fully integrated with Maximo Asset Management.

Mobile calibration

To improve efficiencies in terms of quality, time and resources, Maximo Asset Management has the option to use the work order manager functionality on a handheld device. The IBM Maximo Mobile software portfolio offers the required functionality to introduce and use mobility more effectively within the organization – and in combination with calibration activities.

Compliance with FDA 21 CFR Part 11

Software used in life sciences and healthcare organizations needs to be compliant with FDA regulations such as Title 21 Code of Federal Regulations (CFR) Part 11. Maximo Asset Management supports efforts to comply with these FDA regulations by providing the capability to support electronic signatures. The solution's ability to track and monitor changes also helps organizations address compliance regulations and more efficiently support validation projects.

Corrective and preventive action

Maximo Asset Management supports complaint and incident management and asset-related corrective and preventive action. The solution provides a framework for all stages of the CAPA process, including identification, termination, implementation and permanent embedding of CAPA as part of a continuous improvement process. Maximo Asset Management provides capabilities that are required under FDA regulations for Quality Systems as described in 21 CFR Part 820, where corrective and preventive action is described.

Application and data integration

Healthcare organizations often need to integrate multiple applications. Maximo Asset Management can manage and monitor availability, performance and quality for all asset-related information throughout the organization. Maximo Asset Management has the ability to integrate capabilities with enterprise resource planning information systems, Supervisory Control and Data Acquisition systems, laboratory information management systems, document management systems or other legacy operational systems. The solution can also integrate mobile applications for work order management and inventory as well as calibration and RFID.

Maximo Asset Management Business value for healthcare organizations	
Asset reliability	<ul style="list-style-type: none"> • Improved availability of critical and strategic assets • Better management of service level agreements and quality processes • Optimized equipment reliability
Asset utilization	<ul style="list-style-type: none"> • Improved utilization across all asset classes • More efficient planning and execution
Cost savings	<ul style="list-style-type: none"> • Reduced cost of acquisition, management and maintenance • Improved ROA through extended asset life • Increased work productivity
Compliance	<ul style="list-style-type: none"> • Functionality and features required under industry-specific regulations • Enhanced reporting capabilities

Conclusion

Maximo Asset Management can help hospitals and healthcare organizations increase equipment availability, reduce operating and maintenance costs and maintain higher quality requirements. This optimized performance includes the ability to manage the complete life cycle of all critical assets—beginning with planning and procurement and extending through deployment, tracking, maintenance and disposal. Maximo Asset Management enables hospitals and other healthcare organizations to manage output capacity to meet their patients’ demands and expectations while helping ensure continuous quality improvement.

For more information

To learn more about IBM Maximo Asset Management, contact your IBM representative or IBM Business Partner, or visit ibm.com/tivoli

About Tivoli software from IBM

Tivoli software provides a comprehensive set of offerings and capabilities in support of IBM Service Management, a scalable, modular approach used to deliver more efficient and effective services to your business. Meeting the needs of any size business, Tivoli software enables you to deliver service excellence in support of your business objectives, through integration and automation of processes, workflows and tasks. The security-rich, open standards-based Tivoli service a management platform is complemented by proactive operation management solutions that provide end-to-end visibility and control. It is also backed by world-class IBM Services, IBM Support and an active ecosystem of IBM Business Partners. Tivoli customers and partners can also leverage each other's best practices by participating in independently run IBM Tivoli User Groups around the world – visit

www.tivoli-ug.org



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Somers, NY 10589
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