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Enhance operational sustainability with IBM Tivoli and IBM Maximo solutions for the chemical and petroleum industries.

Highlights

- Manage reaction to events that simultaneously impact production, the environment and the community

- Establish and manage service agreements to instill customer-focused behavior among production, maintenance and support organizations

- Support root cause analysis of problems that delay production

- Manage change in operating and maintenance processes consistently across plants, sites and mobile equipment

- Manage commitments made with nontraditional stakeholders

- Connect improved responsiveness to incidents with enhanced profitability by working to increase production capacity, reduce accidents and mitigate environmental releases

Continuously changing market conditions in the chemical and petroleum industries—combined with mounting pressures from traditional and nontraditional stakeholders and increasingly rigorous compliance requirements—have challenged progressive corporations to drive sustainable behavior to the core of their business. To lead in this world of increasing complexity, chemical and petroleum companies must provide shareholder value while delivering on commitments to:

- The communities in which they operate.
- Employees who are the engine of their business.
- Regulators who demand a greener world.

IBM Maximo® Asset Management and IBM Tivoli® Service Desk enable you to measure and manage how sustainable your business is in the context of local and global changes, and can help you:

- Facilitate sustainability and accountability.
- Increase individual performance by managing service agreements and rewarding sustainable improvement.
- Notify environmental health and safety (EHS) and corporate communications of potential impact to employee safety and community stakeholders.
- Enable customers and suppliers to discover incidents that can reduce throughput and profitability and damage trust.
- "Roll up" sustainable performance reporting for the corporation and stakeholders.

Facilitate sustainability and accountability
Increasingly, nontraditional stakeholders—such as community activists, environmental regulators, politicians, indigenous peoples and special regulatory groups—are taking a more active role in ensuring public health and safety. With mounting concerns about production standards, pollution and the demand for "triple bottom-line" responsibility to people, planet and profit, the pressure for chemical and petroleum organizations to create a sustainable infrastructure and processes has never been greater.
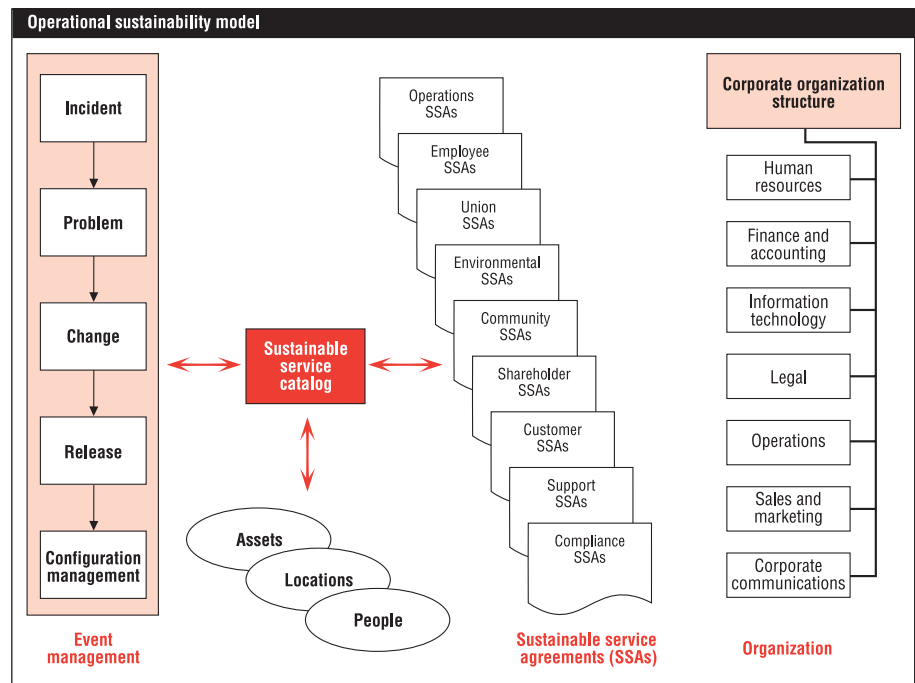
When production is delayed because of operator error, equipment failure or other unplanned events, the community, environment and overall safety can be impacted. Your organization's ability to effectively and efficiently react to these events and rapidly mobilize supporting resources can mean the difference between:

- Missed shipment dates and satisfied customers.
- Healthy employees and injured workers.
- An impeccable environmental record and a greenhouse-gas release.
- A supportive community and a political obstacle to growth.

Increase individual performance by managing service agreements

Tivoli Service Desk and Maximo Asset Management help companies capture measurable service agreements at the core of your operation and connect employees and equipment to those agreements. They enable you to:

- Establish and manage measurable performance against service agreements.
- Tie those agreements to production assets and the interaction of operating groups in a plant, field service or offshore platform environment.
- Capture events, delays and incidents, and progress toward resolution.
- Plan, schedule and assign work to resolve delays, events and incidents.
- Be proactive by notifying supporting resources to turn problems into sustainable change and improvement.

Operational sustainability model

Event management: Incident → Problem → Change → Release → Configuration management; Sustainable service catalog; Assets, Locations, People

Sustainable service agreements (SSAs): Operations SSAs, Employee SSAs, Union SSAs, Environmental SSAs, Community SSAs, Shareholder SSAs, Customer SSAs, Support SSAs, Compliance SSAs

Organization — Corporate organization structure: Human resources, Finance and accounting, Information technology, Legal, Operations, Sales and marketing, Corporate communications

Work on the plant floor or in the field can be repetitive and seemingly disconnected from the finished product and customer relationship. Yet individual behavior at any stage of a production process can have a dramatic impact on employee safety, product delivery commitments and environmental compliance. Tivoli Service Desk presents service agreements and performance to those agreements on group and personal dashboards.

Speed problem resolution by increasing incident visibility

Production employees and first-line supervisors can get instant visibility into incidents and move toward problem resolution. Time-based notification can increase attention and urgency as the potential for degradation in service performance increases. Armed with this information, production employees and support groups can more quickly develop an understanding of their individual contribution to the sustainability of the operation. When incidents are quickly resolved, operations can experience:

- Greater uptime of critical, revenue-generating assets.
- Reduced employee overtime costs.
- Superior employee engagement.
- A rewards system based on true contribution to sustainable improvement.
- Fewer production delays, accidents, releases or union agreement violations.

Notify EHS and corporate communications of potential impact to employee safety, the environment and community stakeholder trust

Accidents happen, environmental releases occur and communities become disenchanted. These incidents are almost always traceable to inappropriate operation, failure of equipment or both. Although preventive procedures can be developed and implemented afterward, the potential for immediately mitigating the damage is often lost due to slow and inadequate communications.

With Tivoli and Maximo solutions, you can more quickly capture, categorize and communicate to mobile devices about events that can develop into incidents. With this information, maintenance, safety and community relations staff can take preventive measures and communicate a proactive culture to employees and community stakeholders, helping you to:

- Capture events as they happen or are observed on the plant floor, in the field, or on trucks and other mobile equipment.
- Route event information electronically to maintenance, EHS and communications staff on their preferred electronic devices.
- Track and communicate to management about progress toward resolution of critical incidents.
- Uncover incidents that can reduce throughput and profitability and damage trust.

Improve customer and supplier relationships

In chemical and petroleum companies, service plans packaged with products are often limited to the site level, where no formal service mechanism exists. However, extending service agreements and event management to customers and suppliers can improve the relationship in the absence of a formal call-center function. Tivoli Service Desk enables you to:

- Extend agreements to customers and suppliers via pure Web architecture.
- Help customers and suppliers identify events that impact their processes.
- Track events occurring outside your facilities and manage them before they become incidents.

"Roll up" sustainable performance reporting for the corporation and stakeholders

Annual reporting to support corporate sustainability programs is a significant and piecemeal effort in most companies today. Information that is captured by this process is managed in a variety of systems and often gathered site-by-site, plant-by-plant. No company can trace this summary information down to the asset, location or organization in order to substantiate corporate claims of success or failure without significant manual effort.

Maximo Asset Management helps you:

- Roll up operational sustainability data from the asset, location and incident through the company's organizational structure.
- Combine this information with financial data that represents revenue and expense reporting for a sustainable operation.
- Integrate the system with other plant-specific systems used to manage environmental, community and organizational detail.

Leverage the IBM commitment to the chemical and petroleum industries

IBM is committed to supporting chemical and petroleum businesses in their realization of sustainable performance and actively works to understand the complex and evolving issues facing your company. A variety of IBM programs help shape the direction and details of Maximo asset and service management solutions, including IBM Services Research, which works with chemical and petroleum companies to deploy production design and scheduling to improve capacity utilization by applying optimization techniques.

Chemical and petroleum organizations throughout the world rely on Tivoli and Maximo solutions to help optimize their asset management organizations, decrease the amount of time it takes to schedule and assign work, enhance their efforts to meet safety and quality requirements, and reduce administrative time.

For more information

For more information about how Tivoli and Maximo solutions for chemicals and petroleum can help your organization gain end-to-end control of your chemical and petroleum assets, contact your IBM representative or IBM Business Partner, or visit **ibm.com**/tivoli or maximo.com

About Tivoli software from IBM

Tivoli software provides a 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. Helping meet 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 management platform is complemented by proactive operational 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 business 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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