DYOPATH

MANUFACTURING HEADS TO THE CLOUDS

A Vertical Market Guide to Cloud Solutions for Manufacturing

INTRODUCTION

Cloud-based solutions and services are rapidly gaining popularity among manufacturers because mobile, secure cloud technologies are tailor-made for manufacturing environments. They are especially attractive to companies that run global supply chains, operate multiple facilities and rely on efficient management of complex production, logistics and inventory processes.

Beyond questions of cost, the cloud's "maturity" as a technology has kept some manufacturers from adopting cloud solutions. Most of their objections center around security, reliability and customization, but these are simply perceived problems. The reality is that modern, professional cloud solutions often exceed industry standards for security, while reliability and customizability are typically addressed through comprehensive service level agreements.

The chief advantages of the cloud to manufacturers rest fundamentally on the nature of the technology. Cloud solutions create key advantages that enable manufacturers to reduce costs, improve efficiencies, provide flexibility and mobility to staff and ensure business continuity in the event of an interruption in operations.

Cloud usage in manufacturing is GROWING IN PREVALENCE.

Currently, only about 20% of manufacturers are using enterprise cloud solutions, creating a tremendous market for adoption and migration.

Of those manufacturers who do use cloud solutions, more than 60% reported major benefits including higher levels of productivity, process automation and data visibility, as well as lower overall IT costs.

More than 67% of manufacturers expect to grow their use of enterprise cloud solutions dramatically over the next few years.

SOURCE: Manufacturing ISV Cloud Summit Survey—Spring, 2016

REDUCING COSTS, INCREASING EFFICIENCY

DYOPATH

Foremost, cloud solutions eliminate the need for major capital investments in on-premise hardware and networks, and they offer quicker deployment and superior ease of use. By shifting systems to the cloud where solution providers handle upgrades and maintenance, they substantially reduce the burden on IT staff and lower related costs. Because cloud services are purchased on demand, they enable dynamic provisioning that lets users buy only what they need as they need it. Cloud solutions for manufacturing turn a major capital expenditure into a much lower, predictable operating expense.

In addition to cost savings, cloud solutions drive greater operational efficiencies. This is important to the industry because U.S. manufacturers are already forced to compete with an historically-low available labor pool. According to a Manufacturing Institute projection, the number of Americans retiring in the next few years, along with the difficulty of attracting qualified workers, will cause nearly 2 million U.S. manufacturing jobs to remain vacant for another decade (or more).

By giving production teams access to mission-critical data such as inventory levels, historical notes, equipment documentation, policies and procedures, operator training modules, etc., the entire organization's ability to quickly identify and solve problems creates tremendous productivity and competitive advantages.

With the surge in mobile capabilities, managers now have real-time access to the production floor, regardless of where they are. This speeds up the decision-making process while reducing the risk of a slow-down or stoppage waiting for the manager to return to the site and make the call.

Source: Leading2Lean 2017 Predictions: Cloud Technology and the Future of Manufacturing

4 Predictions About the Growth of Cloud Solutions for Manufacturers

1) **Increased migration to the cloud:** As more large manufacturers move their operations to the cloud for greater effciency, more companies of all sizes will have to follow suit to stay competitive.
2) **More meaningful data:** As cloud solutions connect machines and people together, the old methods of manually collecting and analyzing data will become obsolete.
3) **Rise of the Internet of People:** Accessibility of mission-critical data will allow staff to resolve issues faster and with better results
4) **Increased productivity with fewer staff:** The inherent efficiencies created by cloud solutions means that manufacturers can do more with a smaller workforce.

FLEXIBLE AND MOBILE

DYOPATH

The cloud creates operational flexibility that lets IT managers quickly and easily leverage additional computing resources when manufacturing operations require it. This ability to scale resources up (or down) to meet rapid fluctuations in demand makes cloud infrastructure and solutions essential to meeting the challenges of global supply chains and shifting consumer markets.

Cloud technology allows manufacturers to connect all sorts of systems—from production management software and inventory-tracking to marketing and human resources—over a variety of platforms, even across remote facilities and out to a mobile sales force.

By putting all the critical operational information in the cloud, anyone in the organization has real-time access to it, from anywhere, over any device. From executives and managers to quality assurance line workers and operators, cloud solutions help create an informed, more knowledgeable staff who can make better decisions and drive innovation.

Source: On the Cloud Frontier: Manufacturing and Operations, ICIX study, March, 2016

3 Tips for Successful Enterprise Cloud Migration

1) Identify opportunities for data sharing and process automation across all departments, from production and inventory to management and human resources.

2) Pick a flexible, enterprise-wide platform that:
   - Works with all key business data and applications
   - Manages both front- and back-office operations
   - Easily integrates both cloud and legacy systems
   - Is extensible enough to grow as needed

3) Choose a platform that captures and uses CRM data and can share info among applications, employees and consumeas.

COMPLIANCE AND BUSINESS CONTINUITY

DYOPATH

To satisfy consumer safety and protection laws, manufacturers must deal with a host of regulatory and compliance issues. When it comes to information systems, companies must ensure that their applications are kept current to remain secure. It is difficult for many organizations to keep up with the latest software patches, updates and security notices across multiple products and vendors. Cloud-based service providers handle all of the patching and updating so that resources are performing according to the very latest standards. This makes it possible for manufacturers to be confident that their systems meet compliance requirements.

In the event of disaster, on the other hand, compliance concerns become secondary to matters of survival. For manufacturers, disaster can take many forms: fire, flood, tornado, sabotage, hacking—even simple human error can bring the production line to a halt. Regardless of size, when disaster strikes, one of a manufacturer's most vulnerable assets is their data. A catastrophic loss of data can permanently destroy a manufacturer's ability to operate. Even a temporary stoppage can have a major impact on a plant's viability. While physical property can be replaced in a disaster's aftermath, data cannot be so easily recovered unless the manufacturer has made investments in a continuity plan that includes cloud-based backup and disaster recovery solutions.

One of the chief advantages of cloud technology is its ability to enable rapid recovery in the event of a disruption of any kind. Regular offsite backup and disaster recovery solutions ensure business continuity by securely storing the data in a remote location and putting in place processes and applications that immediately replicate the manufacturer's IT environment just prior to the event. Secure, reliable cloud solutions can restore their data and systems to full operability within hours.

Manufacturers Are Vulnerable to a Loss of Business Continuity

DYOPATH

50% of all manufacturers that experienced a disaster-related data loss for 10 or more days filed bankruptcy immediately. 93% of such companies filed for bankruptcy within one year of the disaster event.

Source: US Census Bureau

More than 67% of small- to mid-sized manufacturers still rely on tape or disk as part of their disaster recovery strategy.

Source: 2016 ActualTech Media Report: Disaster Recovery as a Service (DRaaS) Attitudes & Adoption

The average cost of downtime to manufacturers is more than $300,000 per hour.

Source: Gartner Blog: The Cost of Downtime, July, 2014

More than 50% of U.S. manufacturers don't have a tested disaster recovery plan.

Source: US Census Bureau

Over 50% of small- to mid-sized manufacturers do not have failover capabilities to restore key business applications within one hour of failure.

Source: 2016 ActualTech Media Report: Disaster Recovery as a Service (DRaaS) Attitudes & Adoption

If a manufacturer with on-premise servers suffers a disaster and loses their apps and customer data, the odds that the company will survive aren't great.

THE CLOUD IS TRANSFORMING...

DYOPATH

...THE WAY MANUFACTURERS CONDUCT BUSINESS.

After early resistance, manufacturers are finally realizing that enterprise cloud solutions carry enormous benefits, like lower IT costs, improved productivity, enhanced information sharing, better decision-making and greater levels of flexibility and security. With this significant shift in attitudes, manufacturers are now moving their core functions to the cloud at an accelerating pace.

DYOPATH delivers custom, cloud-based data storage, backup and recovery and infrastructure solutions and services for manufacturers of any size. Our solutions meet the demand for secure, efficient and reliable technology without tremendous capital outlay and long-term investments in an IT staff.

We've invested in the cloud so that you don't have to.