

How Cloud Services Streamline Manufacturing

Learn how the cloud can improve margins and what questions to ask cloud providers.

Cloud computing has emerged as a powerful tool for manufacturers who must tightly control capital expenditures and stay strongly focused on production. Cloud infrastructure lowers IT costs and cloud-based software enables robust resource management and customer relations.

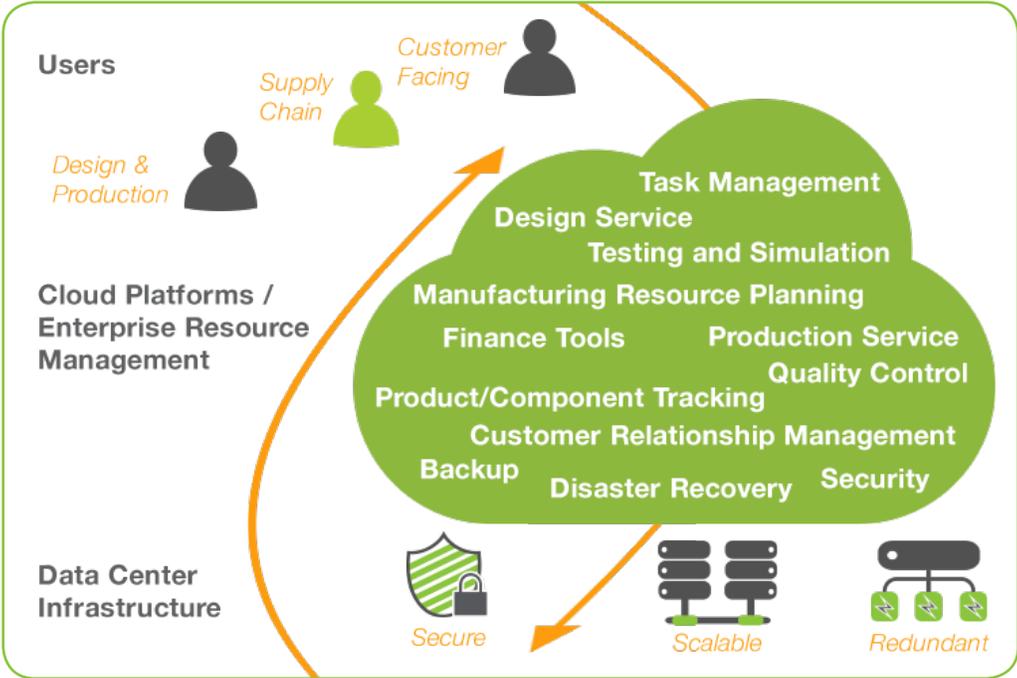
Yet, “cloud” is not a catchall. It can be hard to cut through the hype and understand what might be best for every business. The three primary cloud services below can significantly benefit manufacturing business practices—and manufacturers’ bottom line.

Software as a Service (SaaS)

Some manufacturers have been slower to adopt SaaS because of concerns about availability and security. While SaaS has matured significantly, make sure you understand your provider’s model.

How does it benefit the bottom line?

SaaS applications can range from productivity applications like email to full enterprise resource planning (ERP) suites. ERP software facilitates communication across all levels of an organization, helping decrease time to market and improve production quality. Subscription-based SaaS models decrease pressure on capital budgets, allowing manufactures to reallocate funds to revenue generating areas, like investing in new production equipment. Upgrades are accomplished with ease, protecting your business against both hardware and software obsolescence.



Cloud infrastructure and applications can improve virtually every aspect of manufacturing.

Questions to ask:

If you are concerned about security, ask your provider: Will my software deployment be single-tenant (dedicated) or multi-tenant (shared) architecture? If it is multi-tenant, how do you protect my information?

If you are concerned about availability, ask your provider: What is your percentage of uptime? When was your last unplanned outage and how long did it last?

Infrastructure as a Service (IaaS)

Cloud infrastructure services can provide manufacturers with better supply chain agility. IaaS allows manufacturers to scale their resources up and down, depending on their business volume, which can significantly reduce overhead and make compute resources available for special projects, accommodate for busy seasons, and take advantage of the a provider’s IT expertise. SaaS applications can be deployed on IaaS, and custom apps can be developed for large enterprises.

How does it benefit the bottom line?

IaaS frees manufacturers from having to procure, set up, and maintain data center hardware. For those manufacturers who have seasonal busy periods, it is no longer necessary to always have enough, and be paying for enough, infrastructure to meet peak demand. The elastic nature of IaaS means available resources increase when required and decrease when not needed. In addition, an unexpected spikes in volume are accommodated easily.

“The elastic nature of IaaS means available resources increase when required and decrease when no longer needed.”

Questions to ask:

If you are concerned about security, ask your provider: What compliance standards does your IaaS meet? What physical security measures does your data center facility

take? What type of network monitoring does your organization do?

If you are concerned about availability, ask your provider: What is your Service Level Agreement (SLA) for uptime? What kind of redundancy does your facility have: for example, if you were to grid power, what happens?

Disaster Recovery as a Service (DRaaS)

In the event of a disaster, whether it is maliciously caused or from environmental factors, it is important to consider how your manufacturing organization can recover quickly. While you may have critical data backed up and stored offsite, it may be difficult to access, and difficult to use. For example, many organizations back up email messages, but in the event of a disaster, do not have a path to restore the actual email server, making it difficult to communicate.

How does it benefit the bottom line?

DRaaS helps manufacturers establish criteria to get the business back up and running as quickly as possible in the event of a disaster. Even if entire facilities are destroyed, full system snapshots can help get new equipment online quickly, starting up at the place where the compromised equipment left off. DRaaS is also highly customizable and configurable, but eliminates the need for individual organizations to own two of everything.

Questions to ask:

If you are concerned about security, ask your provider: How is my information transmitted and stored? What is your level of encryption both as data goes across a network and at rest?

If you are concerned about availability, ask your provider: How, and how quickly will I be to access my information? If my facility were to totally shut down, what is the recovery point*? *the amount of time it takes to retrieve data and systems.

* * *

As they make the switch to cloud resources, many manufacturing companies have discovered decreased IT costs and faster response times to consumer demand. Together, these cloud services provide powerful and relatively inexpensive ways to raise the business value of IT departments, speed time to market and secure business continuity.