



A Comprehensive Guide To

Modern Manufacturing in the Cloud

Introduction

The internet has introduced new ways of doing business for many industries, and manufacturing is no exception. Gone are the days of bulky servers and cumbersome ERP packages. It is now possible to manage your entire operation via a web browser. Cloud-based ERP solutions are one of the fastest growing segments within the IT industry, and in manufacturing we see a notable shift from on premise ERP to cloud-based ERP. These new solutions come with a wealth of options, features and benefits. What does modern manufacturing in the cloud look like? In this eBook, we will explore cloud-based ERP in 9 key areas:

1. Network and Configuration
2. Availability
3. Manageability
4. Hardware and Software
5. Storage and Data Retention
6. Disaster Recovery
7. Security
8. Scalability
9. Business Management

As I look at each area, I will outline the key differentiators for cloud ERP and highlight some of the benefits you will gain when moving to a modern ERP solution. Let's get started.

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1 Network & Configuration

This is simply how you set up and access the system.

Cloud-based ERP solutions are offered on a Software as a Service (SaaS) model. That just means you access information via the Internet instead of having software on your own computer. In many instances, all you need is a website address and a login. You can login from any number of devices and work from any compatible device at anytime from anywhere. All you have to do is save the URL in your browser and remember a password. Forget to check something before you left work? You have the ability to login when you get home (if your company allows it). There is a lead time to learn the system and deploy it throughout your whole plant, but once you are up and running, access is as easy as opening a browser window.



SaaS – Software as a Service

A software licensing and delivery model in which software is licensed on a subscription basis and is centrally hosted. SaaS is typically accessed by users using a thin client via a web browser.

2 Availability

ANYTIME, ANYWHERE

Availability is the amount of time a system is working at its full capacity during the time at which it is required to do so. With a cloud-based ERP solution, you get 24/7 availability every day of the year. There are no “business hours”; the portal door is always open. You can work from wherever, whenever, and in any time zone without worrying about your company’s network availability.

RAPID RESPONSE

Response times are as rapid as your internet connection speed, and all employees are running transactions at the same time. You can access your information without delay. There’s no need to wait for software upgrades, data to load, or for someone to get to work in order to login and see what’s going on. You see what others are doing AS they are doing it because everything happens in real time. If someone scans a product at 11:30 pm, you will see it in the system at 11:30 pm.

99.98% Up TIME

Many cloud-based ERP options offer 99.98% uptime, meaning that their servers are down or going through maintenance less than .02% of the time. So, you don’t need to worry about your data not being there when you want to see it. 99.98% is usually much higher than you would achieve having your own server storage facility because when you are down, you are down until it is fixed.



3 Manageability

IT'S TAKEN CARE OF

Cloud-based software as a service (SaaS) systems are managed by the service provider. You will only need an in-house employee who knows how to use the system. You no longer need someone to maintain hardware for an entire network. Updates are done system-wide and most often happen to all users at once. You access the most current version when you login. The service provider monitors the system, protects from hacks, watches uptimes and looks at system peaks and valleys, freeing you to concentrate on what you know best: your business.

COMMUNITY

Many ERP solutions have user groups/communities where users can discuss the software, giving you access to a library of information regarding your system. You can connect with other users within your industry and ask questions in a forum-like space. Everyday users, as well as employees of the service provider, log in to assist each other, post training documentation, and discuss current topics or advancements.

4 Hardware & Software

OR LACK THEREOF

With a cloud-based system, you no longer need hardware/servers for ERP storage. Paper becomes obsolete because everything is online, saving you time and money. There's no need to manage software licenses, and you can throw away your library of software discs because users are assigned online. A good ERP system will reduce the number of software packages you use for all aspects of your business, and you gain the ability to see, use and analyze your data all together in one place.

One of the biggest benefits of modern, cloud-based ERP is that it gives you the ability to use the newest technology. Some ERP solutions offer apps for your tablet or cell phone and even offer compatibility with advanced technology like wrist and ring scanning devices, location trackers and voice technology.





5 Storage & Data Retention

With cloud-based ERP, all of your transactional data and files are stored at a secure data center. Worries about how much space you have on your server or on your hard drive disappear, and you won't have to buy more storage space ever again. You also have a complete history of your business and can reference transactions from the first day of your implementation (as long as your provider keeps historical data.)

6 Disaster Recovery

Most SaaS ERP providers have complex emergency plans to ensure your data is protected. This is far better than housing data onsite where it is subject to any number of issues your facility may encounter. Many data centers also back up their network and data at a redundant data center. For example, if the data center holding your data is in California and it catches on fire, your provider also has your data stored in New York as a backup. It's a benefit you can't provide if you're housing everything onsite.

7 Security

LOGINS

As mentioned before, users login with a user name and password. When you set up your system you should assign each person a unique user ID and password. This will allow you to see who is working in the system. Usernames can be activated immediately and can be instantly deactivated if employment status changes, giving you complete control over who sees your data.

TIME STAMPING

All users are tracked in the system by name, time and date stamps. If something is entered into the system incorrectly, management can see who created the issue and go to the person to assist in working out the solution. This helps to resolve problems quickly and reduce errors.

IP RESTRICTION

An IP address is basically your computer's street address – it's unique number that identifies it on the internet. Many modern ERP systems allow you restrict or grant access based on these IP addresses. This ensures people are clocking in from the correct workstations and allows people to see data based on the location of their computer. For instance, if you didn't want them to see some information from their home PCs, you can set IP permissions to restrict access from IPs outside your company. Conversely, you have the ability to open access as freely as you want.

PERMISSIONS/ROLES

In cloud-based, SaaS ERP solutions, users can be assigned specific permissions or belong to groups with other users who share permissions. For example, you could assign a group of employees to a certain work center, but restrict them from others. Your CEO can have access to every module, but accounts payable clerks may only see the invoicing and payments screens. You have the ability to tailor permissions to each specific user if you want.

8 Scalability

SaaS ERP solutions offer tremendous flexibility and scalability. Your service provider will manage peaks and valleys in your data transactions, remaining stable during high and low transaction times. This means you don't have to worry about lag time due to busy times of the day or because someone in another department is bogging down the system. You also have the ability to add/delete users as you need them. So if you increase your users by 10 or 100, or open up shop in a completely different country, your ERP system will be able to scale up and down as your business does.



9 Business Management

IT'S JUST BETTER

At its core, a new ERP system should help you better manage your business. A modern, cloud-based ERP solution does this in several ways. When your data is available in real-time, decisions can be based on today's data, not just when you take physical inventories. This leads to better decision making and reductions in physical inventory, including raw materials, work in progress and finished goods. With the assistance of scanners, printers, and computers working alongside your employees, there is less room for error. Manual processes are reduced or eliminated, and non-value added activities can be eliminated.

Modern ERP solutions give you real-time, instant reporting. Forecasting, production planning, ordering, sales, and budgeting can all be seen while accessing and analyzing your system's data. You will have a complete and total view over the movement of your company. Reports from all areas of your ERP system - scheduling, CRM, shipping, quality, financial, maintenance, HR, security, purchasing and inventory - give you the information you need to make important decisions.



About Revolution Group

Revolution Group is a top-rated, award-winning technology solutions provider in the Central Ohio area. Revolution Group can solve your business bottlenecks by gaining insight into your day-to-day business processes and providing your company with solutions that will streamline those processes. Revolution Group allows organizations to discover their full potential and then take the appropriate actions based on those discoveries. Revolution Group offers manufacturing ERP consulting and deployment services, Salesforce CRM consulting and implementation services, and IT support services.

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