

# There Are Now 31 Flavors Of Manufacturing Cloud ERP

Pat Garrehy, Rootstock President & CEO



Ten years ago, times were very good to manufacturers when it came to the variety of ERP options open to them. For years, On-Premise ERP has provided the functionality manufacturers have required to support their business processes. Many manufacturers are using ERP systems that are ten, twenty and, in a few cases, thirty years old.

Much has changed, however, in the last ten years and these very systems which worked so well in the past are creating problems in the present. Manufacturers are finding that their markets have changed, caused by both business and consumer-altered demands. Today, the business must adapt to a significantly changed business environment than that which they served a decade ago.

Not only have they had to adapt to a global environment but collaboration through the supply chain, performed with a variety of mobile devices, is now the norm. While they limped along with their legacy ERP system through the global business changes, they are now choking because their legacy On-Premise solutions have not been – and cannot be – changed to meet this rapidly changing social and collaborative environment.

Also, for the manufacturers themselves, their business processes have changed because of shop floor automation or having to support global multiple plants, customers and suppliers, or because they are now providing different products and services. For those who have undergone significant business change, what was used as criteria to select the legacy ERP system of the past is no longer relevant. In many cases, those software packages no longer provide the additional business functionalities that need to be served today – and the software vendor cannot

## There Are Now 31 Flavors Of Manufacturing Cloud ERP

Published on Industrial Maintenance & Plant Operation (<http://www.impomag.com>)

---

provide the needed customization to bring it to a contemporary state.

Therefore, manufacturers are now hoping that new Cloud ERP offerings will solve this problem. However, in most cases, that has not happened. Many Cloud ERP packages have fallen short, because in the rush to get to the Cloud, they are either severely limited in functionality or they are only replications of a predecessor legacy ERP package supporting one business type. They do not acknowledge that manufacturers of today require a greater variety of manufacturing methods and services to be supported. Also, for those that offer the 'hosted' model, they will rapidly be perceived by a now more informed buyer as a Cloud mutant who have learned that the collaboration required amongst a variety of Cloud software packages just can't be achieved in their private 'hosted' Cloud.

### **Some Want Vanilla and Chocolate; Others Want Strawberry and Butter Pecan**

From a manufacturer's perspective, let's look at some different industries to see how they might view this transformation.

For example, a Cloud ERP for [aerospace and defense](#) [1] needs to enable the Engineering, Sales, Operations, Procurement, Materials, Planning and Production Departments to efficiently manage all aspects of the supply chain. Salesforce chatter feeds and the 'on event' generation of emails provide the needed automatic communication amongst the various departments and customers and suppliers. The concept of Community provides 'state of the art' collaboration amongst customers and suppliers within a plant's supply chain.

Aerospace and Defense is not a growing market however. Not only does the manufacturer need to be efficient and cut costs, which is something that the Cloud ERP can provide, but many are now trying to garner revenue by providing service and repair. The Cloud ERP that they select must also be robust enough to support the stringent manufacturing requirements of their industry but must also have the functionality to support reverse logistics and provide their repair facilities with software which allows them to work under a disassembly mode of operation.

[High tech and electronics](#) [2] companies need Engineering Change Control capabilities that enable easier integration with industry standard PLM systems. These manufacturers often use several engineering and CAD related packages to handle electrical, electronic, mechanical and thermal designs. This is an industry that has always wanted 'best of breed' - at least from an engineering perspective. An ERP on the Salesforce platform, which fosters a 'best of breed' environment, would help protect their investment in current PLM systems used for managing revisions and document control connected to these packages.

Again, collaboration is key and ERP systems and PLM system that both operate on the Cloud will be more apt to keep that collaboration effective and modern. Both the PLM and the ERP require collaboration by the supplier. Making it easier for the supplier to function within the Cloud - even if it is different clouds - will streamline that communication. Also, one often finds that the high tech and electronics

## There Are Now 31 Flavors Of Manufacturing Cloud ERP

Published on Industrial Maintenance & Plant Operation (<http://www.impomag.com>)

---

business of ten years ago must now adopt some new business processes. Whether it is to support more custom manufacturing or dealing with different suppliers, some of them a mixture of 'on and off shore' or now operating in a mixed mode of both high volume and low volume, the functionality that they require in their ERP is now different than that which they had required when they bought their current legacy ERP system.

Bill-of-materials for [industrial equipment and machinery](#) [3] manufacturers are often several layers deep and comprise thousands of components. They need a Cloud ERP that makes it easy to manage engineering bill-of-materials with Mass Add, Copy, and Mass Replace functionality. [Job shops and machine shops](#) [4] need to focus on something different. They require a scheduling engine that dates work order operation routing steps (which can be sequential or concurrent) and processes them against a comprehensive set of prioritization rules. Production control managers must be able to easily reprioritize work orders visually with drag-and-drop capacity planning screens. They need to quickly locate overloaded work centers or late work orders by color and, then, go to another tab in the capacity planning screens and see all of the shop orders and field service work for a particular job.

And, so it goes for [Engineer-to-Order](#) [5], [Project Manufacturers](#) [6] companies and their need for [Cloud MRP](#) [7] and [Cloud Production Scheduling](#) [8]. Each has a need to manage multiple methods of manufacturing. Many manufacturers will read this article and take note that they could be a mixture of all that is mentioned. These are the manufacturers moving now to the Cloud as they have been living with these constraints within their On-Premise ERP system for years. But, now, they can migrate to one of a few Cloud ERP systems that are functionally robust enough to qualify in their mind for replacing that which they currently have.

Thus, there are as many manufacturing methods as Baskin Robbins has ice cream flavors. And, just as most of us who buy a double dip cone order two different flavors, the same is often wanted by manufacturers ordering a Cloud ERP. They need to order from a menu of engineer-to-order, manufacture-to-order, manufacture-to-stock, disassembly, configure-to-order and others. In many cases, they, too, need more than one flavor. Thus, they need to be sure that the new Cloud ERP covers all the methods they need and, of course, they require the super collaboration along with their mobile and global requirements.

### Even More Flavors - Chocolate Chip and Mint Chocolate Chip

With the supply chain now being global, additional importance is placed on certain features of ERP, such as [multi-plant inventory](#) [9], planning and tracking of freight and landed costs, drop shipments within the supply chain, inventory visibility at subcontractor or 3PL vendors, subcontract [purchase orders](#) [10] to outsourcing partners, plus having to track consigned inventory and sub-contract expenditures.

Increased machine automation in some industries means that they require more analysis regarding the cost of materials versus the cost of labor. Meanwhile, there are a whole host of manufacturing corporations that are making changes to the businesses to create a competitive edge with their engineering and services. They

## There Are Now 31 Flavors Of Manufacturing Cloud ERP

Published on Industrial Maintenance & Plant Operation (<http://www.impomag.com>)

---

are looking for new manufacturing ERP system features which provide better information and analytics in those areas as compared to tracking detail on the shop floor.

### What Manufacturers Should Look For

Manufacturers need a Cloud ERP that also provides the integrity, robust performance and flexibilities that traditional ERP provides. They require a Cloud ERP that understands how a company needs ready access to parts orders and warranty information to provide the best possible pre-, during- and post-sales experience for their customers.

More manufacturers, however, need to move away from the closed and rigid processes of legacy ERP to very flexible and open work-flows. They require a manufacturing Cloud ERP that can support the complex, project-oriented, engineer-to-order manufacturing environment of today.

Other manufacturers look forward to developing their own fully integrated applications on a very stable and scalable platform for growth, while also providing an easy solution that lets them customize their use of the manufacturing software. Still others with a large, diverse product offering, call for a manufacturing and supply chain application that supports their rapid growth, wanting to better serve their customers. They demand a robust application that will enable them to dramatically improve operational efficiency and customer performance.

They are also much more knowledgeable now in selecting an ERP system than they were a decade ago. Questions asked the Cloud ERP software provider that were not asked in the previous selection process, but should have been asked of the legacy ERP software, include some of the following:

1. How does your software support the tracking and costing of materials drop-shipped by your vendors to your subcontractors? And show me how the vendor or the subcontractor will communicate to the company in a collaborative manner.
2. Can your software allow me to issue multiple serialized parts to a single work order - and how easy is that to do? If I need to have an "AS BUILT" versus 'AS MAINTAINED' view, can you illustrate how I can drill down through multiple serialized components to see the genealogy and how that started with the issue of the component in production.
3. If I require lot-controlled components to be issued to a work order or to a subcontract purchase order can they be back-flushed - and if so how is the back-flush algorithm denoted?
4. Does your software provide your suppliers web portal access to your ERP system that allows them to update purchase order details by suppliers?
5. Can you provide your suppliers web portal access to your ERP system that allows them to receive drop shipments from 3<sup>rd</sup> party vendors?
6. Can you start and maintain a collaborative conversation with your vendor about the status of a part number without using email or texting and keep

## There Are Now 31 Flavors Of Manufacturing Cloud ERP

Published on Industrial Maintenance & Plant Operation (<http://www.impomag.com>)

---

all communication linked to that part number?

### With the Manufacturing Brass Sold, What about IT?

What has always been an issue with ERP systems is that they require customization. And that customization had to be done by the software vendor. IT would love a world where they can be in control of the customizations and perform them easily themselves – and do it in a manner that can accept future releases of the ERP software without their customizations being compromised.

IT is now informed and knows that this type of customization to a software product can only really be achieved on a public cloud platform that promotes ‘best of breed’ and ‘encourages’ that all software developers that reside on their public platform abide by a set of rules which make it conducive for others to extend their software package.

Recognizing that there is a significant difference, and benefit, to the open systems on a public cloud, IT management can make informed decisions on which manufacturing Cloud ERP solution will provide a quicker payback and higher return on investment, especially when considering that latent customization projects can be controlled by the customer rather than the software provider. And, of course, they will be more apt to want the Public Cloud ERP provider that supports their doing those additions. For instance, those using Salesforce’ Force.com will find that it offers significant advantages for IT departments to easily provide their own customizations to manufacturing ERP Cloud software written natively on the public cloud platform.

Indeed Salesforce’ platform provides a benefit for IT but it also has a CRM and Case Management system widely used by manufacturers. In addition, those manufacturers already using Salesforce CRM will also want seamless integration with Salesforce CRM so the manufacturer’s sales staff and management can better manage their customers, get visibility of RMAs and customer returns, and learn about key vendor deliveries that could impact customers.

Best of breed on the Salesforce cloud coupled with the broad and deep functionality of the *more robust Cloud ERP solutions* integrated seamlessly to the Salesforce CRM and Case Management plus making effective use of the Community and Chatter can, indeed, provide 31 flavors of Cloud ERP functionality in the collaborative, global and mobile environment in which we now live.

---

*ABOUT THE AUTHOR: Pat Garrehy is the Founder, President, and CEO for Rootstock Software® and has an extensive background as a software architect and engineer. With over 30 years of management, sales and technical experience, Mr. Garrehy brings a unique blend of analytical focus and business savvy to the table.*

**Source URL (retrieved on 12/19/2014 - 4:53pm):**

<http://www.impomag.com/articles/2013/10/there-are-now-31-flavors-manufacturing->

---

## There Are Now 31 Flavors Of Manufacturing Cloud ERP

Published on Industrial Maintenance & Plant Operation (<http://www.impomag.com>)

---

[cloud-erp](#)

### Links:

- [1] <http://www.rootstock.com/aerospace-defense/>
- [2] <http://www.rootstock.com/high-tech-electronics-manufacturers/>
- [3] <http://www.rootstock.com/industrial-equipment-machinery-manufacturers/>
- [4] <http://www.rootstock.com/job-shops-and-machine-shops/>
- [5] <http://www.rootstock.com/engineer-to-order/>
- [6] <http://www.rootstock.com/project-manufacturers/>
- [7] <http://www.rootstock.com/cloud-mrp-material-requirements-planning/>
- [8] <http://www.rootstock.com/cloud-scheduling-capacity-planning/>
- [9] <http://www.rootstock.com/solutions/multisite/>
- [10] <http://www.rootstock.com/solutions/purchase-order-management/>