Two-Tier ERP - Because One Size Does Not Fit All



At a Glance

- · What is two-tier ERP?
- · Why should you consider two-tier ERP as a strategy?
- When does a two-tier ERP strategy make sense?
- Why should you consider Plex for your two-tier solution?



What is Two-tier ERP?

Two-tier Enterprise Resource Planning (ERP) is an increasingly common term used to describe how a multi-entity company maintains a legacy ERP system to manage the business operations and financials of the corporation at its headquarters (1st tier) but uses different ERP system(s) (2nd tier) at satellite divisions or subsidiaries. The 2nd tier systems may be used to run all (or most) of the satellite and roll up consolidated financial and operational data to the corporate ERP backbone. In this scenario, the corporate ERP system is the system of record for the consolidated master data. While the top-tier ERP systems are typically installed at the corporate IT facility (known as on-premises), cloud-based Software as a Service (SaaS) solutions are being considered for the 2nd tier ERP.

Why Do You Need a Two-tier ERP Strategy?

The answer to this question is simply that "one size does not fit all." Increasingly, the traditional ERP solutions have outgrown the needs of smaller business entities. The legacy systems may be the right tool for coordinating large corporations but have not delivered on customers' changing business requirements. For many IT decision-makers, the high maintenance costs of traditional ERP have not delivered equivalent value and have led them to seek more innovative solutions to their changing business needs. This innovation comes in the form of a two-tier strategy aimed at providing targeted solutions for manufacturing operations that increase operational efficiencies while reducing the overall IT investment risk.

According to Constellation Research¹, there has been increasing interest in two-tier ERP with 48 percent of respondents to a 2011 survey indicating that they are considering two-tier ERP – up 27 percent from the same survey in 2009. In addition to the sentiment that legacy top-tier ERP systems are too rigid for divisional needs, costs were cited as the key objection to a "Single Instance ERP" strategy.

1"The Case for Two-Tier ERP Deployments", February 28, 2011, Ray Wang, Constellation Research.



Targeted Solutions

The needs required for a high-end production facility can be significantly different than other forms of business, creating a significant challenge for most enterprise systems to satisfy all scenarios. These challenges come in the form of unique requirements like supply chain management, production analytics, product genealogy and quality management. Such manufacturing facilities gain higher operational visibility into their production and supply chain operations by leveraging a targeted solution at the divisional level.

Increase Operational Efficiencies

Second tier solutions can be a significant advantage, increasing operational efficiency at the satellite location while providing improved visibility from corporate. Cloud ERP solutions are typically more flexible to the needs of smaller organizations and can be deployed much quicker with little or no disruption to the operating business. Significantly lower capital outlays and reduced IT burden make cloud an ideal choice for the 2nd tier ERP. Gartner finds that "the ERP suite is being deconstructed into 'postmodern ERP.' This will result in a more federated, loosely-coupled ERP environment with much (or perhaps even all) of the functionality sourced as cloud services or via business process outsourcers." Moreover, they predict "within five years, hybrid ERP environments will be the norm."²

These benefits do not end at the second tier; the advantages at the corporate parent can be significant as well. Rather than investing in upgrades or customizations to their corporate system that are often required to support the specific needs of the satellites, they can focus their IT budget and resources at optimizing the "right tool for the right job" at corporate, supporting the satellites' desire to do the same thing with tools better suited to their specific needs.

²"Predicts 2014: The Rise of the Postmodern ERP and Enterprise Applications World", Gartner, December 2013



Agility with Reduced Investment Risk

Now that companies are recovering from the "Great Recession" and are experiencing significant growth for the first time in a decade, they need greater agility with lower risk to expand their business. Expectations from business leaders often include acquisitions (or divestitures) that take on new geographies and/or different lines of business. For example, the expansion into the BRICS countries (Brazil, Russia, India, China and South Africa) creates tremendous opportunities for low cost resources and labor; however, this expansion can stress the typical IT infrastructure and small IT teams at satellite organizations. Upgrading the ERP systems - typically smaller, purpose built or even home grown systems – of the acquired company is just too expensive and disruptive to the incoming organization. One way to reduce the investment risk during such acquisitions is to implement a 2nd tier solution that is a more appropriate fit for the operational requirements of the satellite.

In addition, implementing large, legacy ERP systems at the divisional level is often cost prohibitive when compared to smaller, more nimble 2nd tier solutions, especially cloud-based solutions. In the case of on-premises implementations, license costs and ongoing annual maintenance (typically > 20 percent of the license fees), high-end servers and the skilled IT staff to manage it all creates a wall that many divisional leaders do not want to climb. Finally, expensive and lengthy implementation cycles that may take 6-12 months do not fit the needs of organizations that are facing challenging market conditions and higher expectations from their customers.

When Does a Two-Tier Strategy Make Sense?

There are any number of scenarios where two-tier ERP is the right fit, such as when the legacy top-tier system is operating fine but satellites need attention. The corporation may already have significant investment in ERP and would prefer to continue to optimize it with minimal disruption to the core business. However, at the satellite organizations, the maintenance contracts may be expiring or the versions are so outdated that they must be upgraded to stay operational. Another common scenario is a heavily customized system that



requires too much manual maintenance and may have outgrown its useful life. Addressing the cost and effort to upgrade an individual plant to solve its unique needs may make the most sense versus installing an instance of the big top-tier system.

As mentioned earlier, the individual demands at multiple locations may be driving different requirements at the satellite organizations. For example, when acquiring a new subsidiary, it may be easier to satisfy regulatory requirements in its local country. A common scenario is that the acquired satellite has grown through acquisition itself and is already dealing with multiple ERP systems.

Rather than deal with the upgrades, integrations and business disruption of consolidating its own systems – or integrating into the parent's – it may be a lower risk proposition to move to a cloud-based ERP solution that delivers a higher ROI and quicker time to value. This helps companies with standardization across the enterprise and enables more strategic decision making across production facilities.

Similarly, when spinning up a new satellite operation to meet a growing business need, implementing a cloud ERP system can reduce the financial risk to the new entity and perhaps even make them more attractive as a spin-off or for sale. "Next-shoring", a new trend that actually plans for a finite life for a plant (depending on continued market conditions), benefits from this lower risk scenario and can be shut down if required without having to write down the capital expenses of computer hardware and software licenses (that may not be portable). Rather than implementing an unwieldy instance of the parent's legacy ERP system, they can gain business advantage with a tool better suited for their specific needs and budget sensitivities.

There are many examples where "one size does not fit all" such as the specific needs required for compliance in different industries or geographies. Each country, industry and business-type combination may create a scenario that no one system could possibly satisfy and requires a custom configuration.

As has already been noted, the top-tier systems are too rigid and do not have the flexibility required for agile companies. Cloud ERP solutions, on the other hand, can be highly flexible and configurable in terms of capabilities, industry



support and especially implementation. With a smart SaaS integration strategy, each satellite can have its own configuration "in the cloud" up and running in months and can roll up the necessary data to corporate without a hitch.

"While today's two-tier strategies mostly involve on-premises solutions, cloud-based solutions will gain favor over the next 18 to 24 months because of their rapid deployment capabilities, constant innovation qualities and subscription pricing. Whether SaaS, on-premises or hybrid, a two-tier ERP strategy will reduce costs, meet new business requirements and provide better business value."

Ray Wang, Constellation Research, "The Case for Two-Tier ERP Deployments"

Finally, although few companies are looking to replace their large, expensive and potentially customized corporate ERP implementations, the rapid innovation being delivered by 2nd tier ERP providers is influencing companies to consider piloting them at a divisional level, then replicating to other divisions. With the flexibility of cloud ERP, this can help to bring up the efficiency and productivity of the whole company without upsetting the corporate ERP "applecart".

Why Plex Systems for Your Two-Tier Strategy?

Plex is a cloud-only ERP solution designed specifically for manufacturers with customers and facilities all over the world. Plex Systems has demonstrated success at delivering end-to-end ERP needs at the manufacturing plant level, and many Plex customers have replicated their success to multiple plants.



Global Head Office MPS + MRP NY Regional Office Mexico Plant Canada Plant China Plant China Plant The Plex Manufacturing Cloud Plex MES Plex MES Hybrid ERP Environment California Plant Michigan Plant California Plant

Example: Two-tier Implementation for Edge Corporation (a fictitious company)

Edge Corporation (A Fictitious Company) with Plex

Cloud-based and SaaS solutions provide the best ROI for two-tier deployments and modern web services make implementation much quicker and easier. In the Edge example above, the New York office, along with its Michigan and California facilities run Plex. The subsidiary offices will consolidate under the New York entity. Then this division, along with its peer Mexico plant – as well as the Canada and China plants - will consolidate up into the Global Head Office. Once configured for the US operation, Plex can easily be replicated for the Mexico plant with a Spanish language overlay. The roll up of financial data such as the general ledger and sales forecasts can be easily reconciled into the desired currency of the head office and be uploaded.

Plex is especially well suited to the above scenarios where the satellites are manufacturing facilities. Originally designed to suit the needs of discrete and process manufacturers, Plex has grown in functionality with features tailored to the needs of a specific facility through codeless configuration – not customization. Plex is focused specifically on the unique requirements of manufacturing operations and is the only "Manufacturing Cloud" SaaS offering in the ERP market. Through this model, it delivers value quickly with lower implementation and IT support costs.



Moreover, Plex grows using a "continuous innovation" model where enhancements and upgrades are delivered continuously and does not suffer the obsolescence, or need for upgrade implementations typical of on-premise solutions. In this way, Plex is uniquely able to stay up to date with the changing needs of manufacturing businesses. This approach allows Plex to satisfy the unique requirements of manufacturing operations, such as:

Real-time production ecosystem

Plex MES delivers a real-time interoperable production system that guides, initiates and reports shop floor activities as they occur for optimized and responsive plant operations & processes.

End-to-end traceability

For every action in production, there is a transaction in Plex so every piece of inventory is tracked for precise genealogy and traceability such as to isolate and contain potential quality issues.

Closed-loop quality

Compliance with regulatory and quality standards is delivered through an integral quality control and checkpoint system in Plex MES, minimizing waste and ensuring standards compliance, documentation and traceability needs.

Plex customers are often large multi-national corporations and require systems targeted to streamline and grow their operations. As such, Plex is deployed at manufacturing facilities to control operations for the whole subsidiary entity while communicating up to the parent enterprise, as a classic a two-tier implementation. Plex has many customers operating in a two-tier mode.

Why Plex Now?

Built from the ground up for the cloud by manufacturing experts, Plex delivers the broad and deep ERP functionality that puts you ahead of the competition. The Plex Manufacturing Cloud is 100% focused on discrete and process manufacturing with industry-leading plant floor to top floor functionality. ERP from the Plex Manufacturing Cloud delivers unprecedented customer success through a relentless pursuit of continuous innovation for the manufacturing industry. The reason to choose Plex can be summed up by:



Built for manufacturers. With the resurgence of manufacturing following the Great Recession, manufacturers are faced with challenges to keep up with growing capacity. Because it was designed specifically for manufacturers, Plex more directly addresses the problems that modern manufacturers face. Plex allows you to drive operational efficiency by improving inventory accuracy, product quality and real-time reporting/analytics.

Visibility of Operations. As a complete, end-to-end solution for manufacturing businesses, Plex delivers a single, centrally managed source of manufacturing and business data. Connected from the top floor (business) all the way to workcenters on the plant floor and all the way to the shop-floor equipment itself, Plex ensures that data is collected at the "manufacturing moment." This visibility makes traceability to specific data quick and easy and makes it simple to report and share across the enterprise.

Cloud Adoption. The rapid increase in companies adopting cloud technologies – especially in controlled ways such as functional or division level – makes deploying Plex at a plant level a viable strategy. The lower IT overhead costs make spinning up a new plant easier and more cost effective with lower risk. Moreover, replicating a successful deployment to additional plants can be accomplished in weeks versus months.

PLEX.COM | 855.534.8012

About Plex

The Plex Manufacturing Cloud is the first and only cloud ERP built to meet the tough requirements of today's manufacturers. Hundreds of innovative companies, across industries including aerospace and defense, food and beverage, and motor vehicles, rely on Plex to operate their manufacturing businesses and generate profit from every inch of the plant floor. With insight that starts on the production line, Plex helps manufacturing companies see and understand every aspect of their business, enabling them to lead in an ever-changing market.

