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NetSuite Two-Tier ERP Strategy Kit

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Welcome to the NetSuite Two-Tier ERP Strategy Kit

Thank you for downloading the NetSuite Two-Tier ERP Strategy Kit. We hope you find its independent white papers, best practice guidance and customer case studies useful in determining whether a two-tier ERP strategy is right for your organization.

Two-tier ERP is a business and technology strategy that enables organizations to keep their investment in existing ERP systems such as SAP or Oracle at the corporate level, while empowering subsidiaries and divisions to innovate with a second ERP system that gives them more agility and better total cost of ownership. As you'll see in this kit, cloud-based ERP is increasingly in use in the second tier.

At NetSuite, we've helped multi-entity, multinational companies in a range of industries capitalize on the benefits of the two-tier ERP model. In this kit, you'll find case studies that detail the success companies have achieved by deploying NetSuite for ERP/financials, CRM, ecommerce, supply chain and more at their satellite operations, and synching with on-premise ERP at headquarters.

For these customers, the key to two-tier ERP is NetSuite OneWorld, the first and only on-demand system to deliver real-time global business management and financial consolidation, with local customization and full integration capabilities with SAP or Oracle. The real-world success of these NetSuite customers testifies that two-tier ERP is not some future-state vision—it's a practical and proven solution that is driving quantifiable business benefits today.

Also in this kit, you'll also find two independent white papers by Forrester Research and R "Ray" Wang, the CEO of Constellation Research, that offer an expert industry perspective on the how and why behind the rapid emergence of two-tier ERP. A NetSuite white paper, *Two-Tier ERP: The Best of Both Worlds*, outlines strategic considerations and system requirements for moving your satellite operations to the cloud.

When you're ready to learn more, call us at 1-877-NETSUITE.

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by George Lawrie
for Application Development & Delivery Professionals

October 19, 2010 | Updated: December 9, 2010

It's Time To Clarify Your Global ERP Strategy

by George Lawrie
with Mike Gilpin, Paul D. Hamerman, and Sander Rose

EXECUTIVE SUMMARY

As enterprise firms restructure through mergers and acquisitions and expand their global presence, they face huge IT and master data synchronization costs in supporting multiple legacy and disparate enterprise resource planning (ERP) applications. Corporate sponsors of enterprise ERP business transaction "hubs" advocate standardizing and reducing the cost of ownership, but business units in smaller niche markets or remote geographic locations place higher value on lightweight local solutions, or "spokes." Some firms have found that the simplest ERP standardization approach, which minimized *IT costs*, was not the best for achieving enterprise goals. To reconcile potentially conflicting enterprise and business unit requirements, firms should adopt one of three ERP hub-and-spoke deployment models, either requiring all business units to use a single common instance, mandating enterprise *hub* and business unit *spoke* applications, or allowing business units to choose from an approved list of *spoke* solutions. Which ERP deployment model is best for your firm depends critically on your operating model and on the role of business units in your overall enterprise strategy.

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NOTES & RESOURCES

Forrester interviewed vendor and user companies including HCL Technologies, ITC Infotech, Microsoft Dynamics, Oracle, and SAP.

Related Research Documents
"A CIO's Guide To Merger And Acquisition Planning"
January 20, 2010

"Trends 2010: ERP Applications"
December 17, 2009

"The State Of ERP 2009: Market Forces Drive Specialization, Consolidation, And Innovation"
November 2, 2009

"Case Study: How Wyeth Upgraded Its B2B Operations To Support A Global ERP Strategy"
April 17, 2009

GLOBAL FIRMS DEPLOY MULTIPLE ERP STRATEGIES

IT executives strive for IT simplification, single vendor sourcing, and the lowest total cost of ownership, while line-of-business (LOB) executives expect IT's support in achieving their market penetration objectives, which are often shaped by local concerns. Forrester's research shows that global firms manage the tension between these potentially conflicting goals in one of three ways, depending on the nature of the relationship between the enterprise headquarters/coordinating hub and its execution-oriented business unit spokes and on the level of competition or protection each business unit faces in its local market. Global firms have a long legacy of ERP heterogeneity, with Forrester noting as long ago as 2004 that a third of firms were already running 10 or more instances.[1] These enterprises have been on a multiyear mission to simplify their ERP landscape, but more recently, some have found that the *simplest* ERP landscape may not be the *best* to support their global business strategies.[2]

Firms Adopt Multiple ERP Standardization Policies

Forrester surveyed 59 global ERP users and interviewed leading vendors and systems integrators to gain an understanding of how ERP strategies vary. We asked about ERP strategy for the most complex business units with high transaction volumes and requirements for complex functionality, typically found in the headquarters or hub operations of multinationals. We also asked about ERP strategy for business units with simpler requirements, often found in local distribution spokes of multinational enterprises.

Forrester found that vendors refer to "tier one" and "tier two" enterprises based on their transaction volumes and the range of functionality they deploy. They often classify manufacturing sites as tier one, for example. Forrester found this classification unsatisfactory because global firms adopt different operating models depending on their strategy for creating value. High-tech firms, for example, offshore manufacturing operations to highly focused subsidiaries or suppliers with relatively simple ERP requirements. Forrester defines ERP hub operations as:

> *The coordinating and consolidation processes of a corporate headquarters.*

Forrester defines ERP spoke operations as:

> *The business-unit-level execution of sales, distribution, or manufacturing plans laid down by headquarters.*
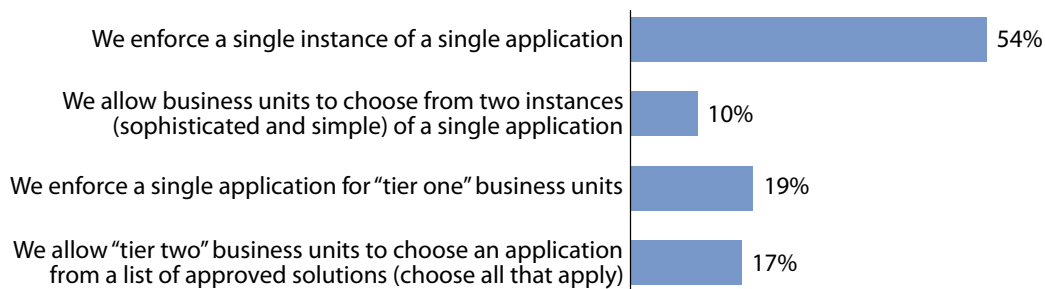
Forrester found a range of ERP standardization policies, including:

- **Standardizing on a single instance of a single application.** We found that 54% of our 59 global enterprise respondents standardized on a single instance of an application regardless of the complexity or size of the business unit (see Figure 1).

- **Standardizing on a single enterprise hub application.** Out of 59 survey participants, 11 standardized on a single application for their most sophisticated or tier one sites but did not require a single instance. Six of these standardized on SAP, one on Lawson Intentia, and one on Oracle E-Business Suite (EBS), with the remainder mandating "other" applications from vendors such as Ariba, Infor, or Oracle PeopleSoft for their tier one business units.

- **Providing a choice of spoke applications.** Forrester found that of the 10 firms that planned to offer a choice of functionality to tier two sites, five planned to include SAP Business All-in-One on the list, four planned to include Oracle JD Edwards, and two planned to include SAP Business One as an option.

- **Mandating a single spoke application.** Although Forrester found no survey responses mandating a spoke solution, we subsequently found that firms such as Dril-Quip mandate solutions such as Epicor for all operations globally regardless of whether they manufacture or merely distribute and service.

Figure 1 A Slim Majority Of Firms Standardizes On A Single ERP Instance

"What is your current policy on ERP selection and implementation for different sites and business units?"

We enforce a single instance of a single application	54%
We allow business units to choose from two instances (sophisticated and simple) of a single application	10%
We enforce a single application for "tier one" business units	19%
We allow "tier two" business units to choose an application from a list of approved solutions (choose all that apply)	17%

Base: 59 application development professionals
(No respondents chose "We enforce a single application for 'tier two' business units.")

Source: May 2010 Global Enterprise Resource Planning Online Survey

56991   Source: Forrester Research, Inc.

ERP Hub-And-Spoke Strategies Emerge As A Viable Alternative

Forrester noted in the recent past a significant increase in client inquiries about integration, reflecting the pressures on application development and delivery professionals and their business stakeholders to support conflicting requirements across headquarters and operational business units.[3] Client inquiries on ERP have shown the strain in large global firms of extending the ERP footprint from standardized financial processes to customer-facing processes that vary from market to market.[4] We asked our survey respondents about their changing ERP selection and implementation policies and found that global firms plan:

- **Marginally more ERP choice for business units.** Just over half of our respondents told us that they planned to continue single-instance ERP consolidation across all geographies and all business unit sizes. Of our respondents, 18 expect to deploy different instances of the same application in business units of varying complexity, while eight expect to standardize on a tier one solution for more-homogeneous, large business units, and only three plan to impose a standard tier two solution on their diverse, smaller business units.

- **Limited tier two ERP standardization.** Only three of our 59 respondents chose to standardize their spoke or tier two solutions. One each chose to standardize on Epicor, Microsoft Navision, and SAP Business One.

Global ERP Strategy Presents A Dilemma For Enterprises With Far-Flung Operations

IT executives are highly motivated to simplify the IT landscape by rationalizing on a single instance that, ideally, runs in a central location. LOB executives in consumer packaged goods (CPG) firms such as Procter & Gamble need some global consistency of customer data to manage credit exposure and of supplier data to get the best terms. They need to have an aggregate view of supply and demand to manage the complexity of serving multiple markets from multiple plants. But they are skeptical about the scale of savings relative to the risk of damaging local business by imposing a corporate ERP standard on disparate operating units. They point to the relatively low ratio of IT expense relative to global firms' revenues.[5] They worry that *too much* IT simplification may affect revenues and earnings by:

- **Requiring functional compromises and slowing down release cadence.** Business units with any autonomy to serve their own unique markets with their own unique assets often end up with idiosyncratic processes designed to meet local regulatory requirements. Perhaps more importantly, they must support the customer billing and payment practices or the recipes or bill of material options they need to compete in their markets. They tend to develop idiosyncratic routings to exploit the unique plant and work centers in their factories. Business unit managers worry that imposing standard processes and systems will force them to compromise on local requirements, which will either cause them to lose market share to more-flexible competitors or require them to scramble to meet local statutory requirements. They worry that release cadence,

the frequency of upgrading to new capabilities, will be driven by IT departmental and vendor-determined convenience rather than the competitive imperatives they face in their markets.

- **Centralizing IT service.** We found in our interviews that business unit executives still expressed concerns about connectivity to remote centralized apps; they were concerned about latency across the network and about contention for IT resources. From an end user perspective, IT centralization priorities can directly affect operations; as one end user executive at a global multinational said, "Who will prioritize the development work if I need to develop a new statutory inventory valuation report for the authorities in Brazil, or worse still who will guarantee response times if I need to take fast telesales orders while someone else is running customer billing?"

CHOOSE FROM THREE OPTIONS TO DEVELOP A GLOBAL ERP STRATEGY

To balance the tensions between IT's drive to simplify and LOB concerns about oversimplification, application development and delivery professionals should work with business colleagues to determine the best ERP strategy for their firm's particular situation. The ERP deployment models fall into three primary options:

1. **Hub only.** In this model, firms impose a single instance of a single application on all business units, regardless of geography and business complexity (see Figure 2).

2. **Hub-and-standard-spoke solution.** In this model, firms impose on their spoke business units a single application, regardless of geography and business unit complexity.

3. **Hub-and-a-choice-of-spoke solution.** In this model, firms allow a constrained choice of applications to their simpler spoke business units, providing sufficient options to suit all styles of business but constraining choices for ease of support and vendor management.

Figure 2 Hub-And-Spoke Models Of ERP Standardization

Hub only

Hub and standard spokes

Hub and choice of spokes
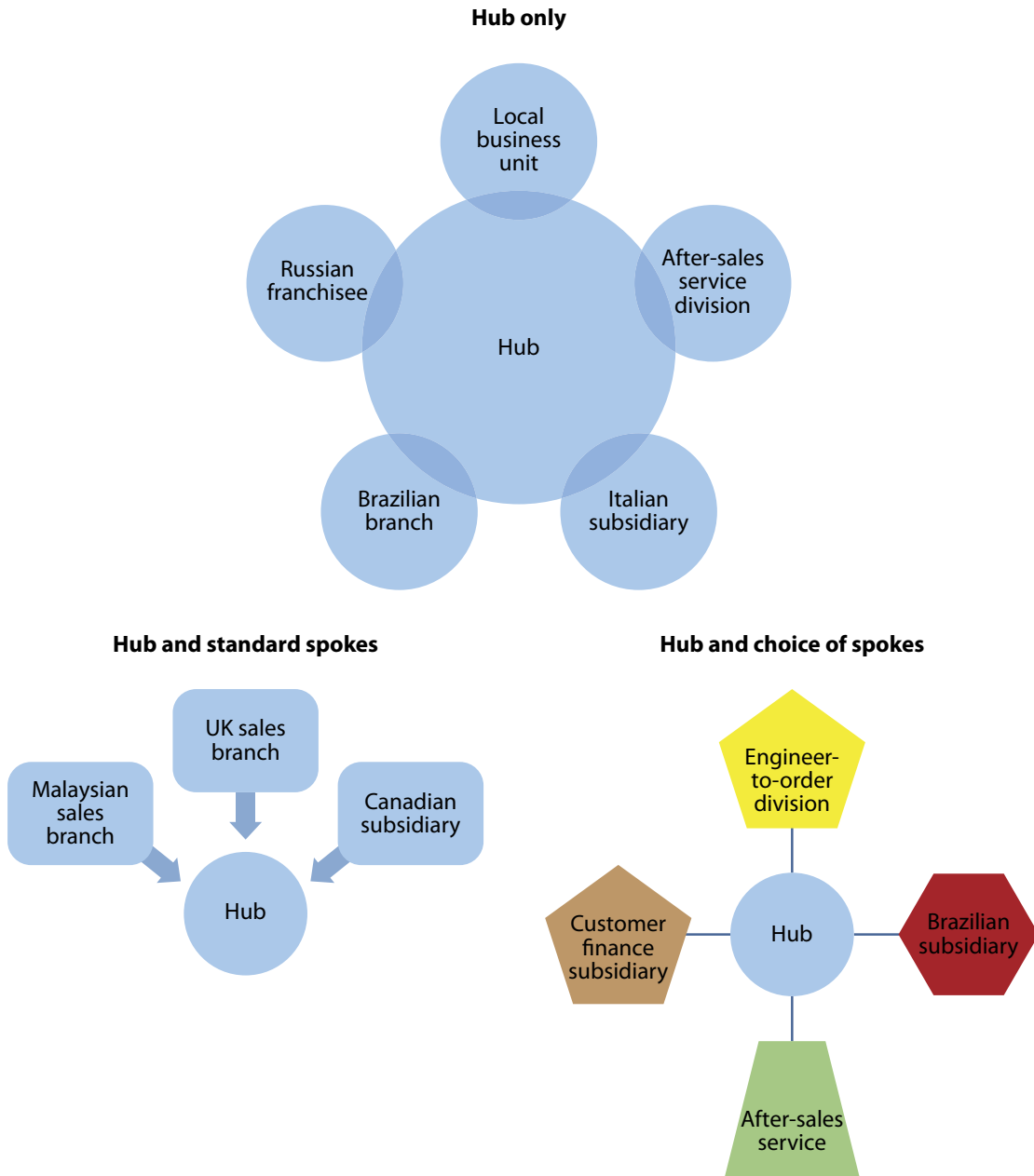
Source: Forrester Research, Inc.

Global ERP Strategy Depends On Operating And Customer And Supplier Characteristics

Large multinational firms need to consider their global ERP strategy as they balance the need to reduce IT complexity with the need to support the increasingly diverse requirements of their myriad markets, offerings, and channels. In developing their strategy, application development and delivery professionals should carefully consider their firm's:

- **Operating model.** In some multinationals, sales is the primary purpose of business units outside headquarters. The principal purpose of all the local operations in pharmaceutical or branded CPG global firms is to exploit the corporate intellectual property (IP) or brand by selling it into the local market.
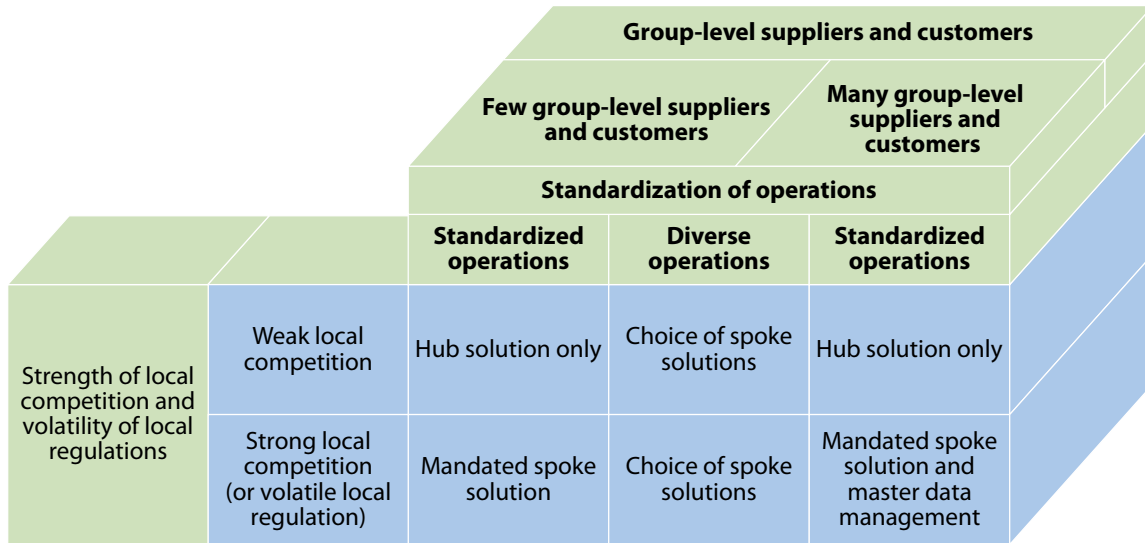
  Forrester found examples of firms that develop patent-protected active ingredients such as antiviral inoculations or secret formulae such as condensed soft drink syrup that are distributed only to local subsidiaries for local dilution, packaging, or bottling and labeling. For such firms, which are protected by trademarks and patents, there is little local competition, and the regulatory model is often globally standardized. Firms with this type of operating model rely on the parent company as their principal supplier and are more likely to choose a single-instance ERP approach consisting of a remotely accessed hub without spoke solutions (see Figure 3).

  Forrester found that firms with a higher level of local competition and highly standardized operations in each business unit often mandate a spoke solution that is well integrated with the corporate hub. However, firms with high levels of local competition and with volatile, complex local regulatory regimes — such as those located in Brazil or India — will offer their business units a choice of spoke solutions so they can most easily adapt to local market conditions.

- **Customer and supplier composition.** The more suppliers and customers that business units have in common, the more the pressure will be to standardize on a hub or a hub-and-mandated-spoke approach. Business units that develop autonomous relationships with customers and suppliers are more likely to receive a choice of ERP solutions to enable them to adapt to local trading conditions.

Once determining the hub-and-spoke strategy conceptual model, application development and delivery professionals can begin to consider their spoke-application choices.

Figure 3 Business Operating Models Determine ERP Hub-And-Spoke Policies

		Group-level suppliers and customers		
		Few group-level suppliers and customers		Many group-level suppliers and customers
		Standardization of operations		
		Standardized operations	Diverse operations	Standardized operations
Strength of local competition and volatility of local regulations	Weak local competition	Hub solution only	Choice of spoke solutions	Hub solution only
	Strong local competition (or volatile local regulation)	Mandated spoke solution	Choice of spoke solutions	Mandated spoke solution and master data management

56991   Source: Forrester Research, Inc.

New Technologies For Integration And Data Management Also Shape ERP Strategy

At one time, only a single-instance, hub-centric approach would guarantee the ability for a firm like Unilever to apply supplier terms consistently around the globe and deliver "available to promise" visibility across multiple plants. New technologies have changed this, and savvy application development and delivery professionals must pay attention to the impact of:

- **Federated master data management and data access.** Firms including Deutsche Bank and Bristol-Myers Squibb use master data management tools to normalize master data such as corporate customer discounts and standard part numbers across multiple ERP implementations. Technologies such as business process management, service orchestration, and most of all customer hubs enable firms to manage common master data without mandating the same operational apps in every business unit.[6] Lastly, information-as-a-service offers a virtualized data services layer that integrates heterogeneous mashups of data and content to service any application in real time or batch.[7]

- **Software-as-a-service ERP extensions.** It's now some years since the ERP battle went vertical.[8] Firms including Diageo and Unilever, taking this lesson to heart, focus on processes that directly affect operations. They deploy cloud-based mobile execution solutions such as Quofore directly to standardize their sales and merchandizing processes across thousands of sales and merchandising employees without mandating ERP standardization across all business units.[9] Firms including Raytheon and Toshiba use cloud-based services such as Kinaxis to provide sales and operations planning and available-to-promise functionality across multiple locations and different ERP implementations, breaking free from the ERP centralization/decentralization debate.

ERP Spoke Solution Choices Reflect Deployment Architecture Requirements

Once application development and delivery professionals have determined the right ERP hub-and-spoke strategy, the next area of investigation should be whether to deploy spoke applications on premise or in the cloud:

- **On-premise ERP spoke solutions.** Forrester identified on-premise "spoke" solutions from Microsoft Dynamics, Oracle, Epicor, and SAP (see Figure 4).

  Microsoft Dynamics provides Navision (Dynamics NAV) for enterprises with five to 100 employees and Axapta (Dynamics AX) for spoke business units with more than 100 employees. Dynamics GP (Great Plains) provides a solution for spoke enterprises in North America and limited international geographies with between five and 100 employees. It is delivered with 350 Web services for out-of-the-box integration with enterprise hub ERP solutions. All three Microsoft Dynamics solutions include certified integration with various releases of mySAP ERP.

  Oracle provides the JD Edwards EnterpriseOne solution for new spoke business unit opportunities in lower, mid, and upper markets. It also supports hub-and-spoke solutions for spoke business units that have established effective JD Edwards World deployments.

  Epicor provides two on-premise solutions that support hub-and-spoke models. Epicor 9 ERP is available in a number of editions based on the size of the "spoke" operation, including Standard Edition for 50 to 250 employees and Enterprise Edition for spoke divisions and subsidiaries numbering up to thousands of employees and users across multiple countries. Epicor ERP is based on a service-oriented architecture (SOA) featuring more than 830 individual business services, each made available as a Web service. Epicor ERP also includes embedded master data management (MDM) for ownership, stewardship, and synchronization of master data and business transactions between editions. Additional messaging and process integration is available via Epicor Service Connect middleware for business document mapping, transformation, and workflow. Custom integration is available to various releases of SAP ERP, and Epicor plans preconfigured integration adaptors for 2011 for SAP and Oracle in Epicor Corporate Connect.

  Second, Epicor iScala targets hub-and-spoke scenarios with spokes in many countries (30 or 40) integrated back to a corporate hub ERP system. Custom integration is available to various releases of SAP and Oracle using Epicor Service Connect middleware and a .NET Web service interface to iScala. An additional corporate template tool is available for centrally managing settings, security, policies, processes, and master data across the multiple spokes.

  SAP provides two on-premise spoke solutions (although both are also available as hosted solutions on a subscription basis): SAP Business One for firms with a smaller number of users and SAP Business All-in-One for an unlimited number of users. SAP Business One targets sales, service, and distribution sites with up to 60 professional users. All-in-One targets manufacturing sites and larger, more complex sales, service, and distribution sites. Both also include preconfigured,

baseline best practices for industries, and All-in-One includes some industry versions, such as one for aerospace and defense. SAP provides some prebuilt integration scenarios for hub-and-spoke deployments. Both solutions use the legacy SAP BusinessObjects technology (now SAP Enterprise Performance Management) for consolidation purposes.

The integration between the hub and spokes can be accomplished either with SAP NetWeaver Process Integration or SAP Business One Integration for SAP NetWeaver (B1iSN). Customers using Business All-in-One at spokes can use either integration platform; Business One customers can use B1iSN. This enables firms such as LORD Corporation to develop shared credit and inventory control at the enterprise hub for orders taken (and invoices generated) in each of the spoke business units.

· **Software-as-a-service ERP spoke solutions.** Forrester identified software-as-a-service, or "on-demand," ERP solutions suitable for hub-and-spoke implementations from Epicor, NetSuite, and SAP.

Launched in May 2010, Epicor's cloud based offering, Epicor Express is suitable for small manufacturers and job shops of one to 50 employees. Fully multitenant and based on the same code line as the on-premise version, Epicor Express offers integration to the other editions of Epicor ERP and can be integrated via Epicor Service Connect into non-Epicor hub systems through the same SOA Web service API. NetSuite provides some summary-level integration with SAP and Oracle corporate hubs of summary-level financial data and general ledger journal entries.[10] SAP's multitenacy solution, Business ByDesign, was released for volume ramp-up in July 2010. It supports financial management, customer relationships, human resources, projects, procurement, and supply chain and includes analytics and reporting. It is suitable for high-growth small or midsized subsidiaries and partners that are sales/service offices, warehouses, and service sites. SAP Business ByDesign supports two dedicated verticals today (professional service providers and light discrete manufacturing) with more to follow in the future.

Figure 4 Comparison Of Choices For ERP Spoke Solutions

Spoke application	Typical scale of spoke business unit	Hub integration	
On premise		Process	Data
Epicor			
Epicor ERP (Enterprise Edition)	More than 250 employees	Preconfigured integration scenarios planned as Epicor Corporate Connect. Typical deployments are divisions and subsidiaries with integral MDM and financial-level consolidation.	Epicor ERP delivers a service-oriented architecture (SOA) with granular business logic made up of more than 830 business objects, each exposed as a .NET Web service with multiple methods.
Epicor ERP (Standard Edition)	50 to 250 employees	Supports integration between Editions (including Express Edition on demand) and integrating at a financial level to a corporate tier 1 ERP system.	Epicor Service Connect is deployed for process integration, document mapping, and transformation. Epicor provides embedded master data management (MDM).
Epicor iScala	Five to 1,000 employees	Typically divisions, subsidiaries, and countries run iScala, integrating at an operational or financial level to a corporate tier 1 ERP system.	Data integration is provided using .NET Web services, corporate templates for MDM, process integration, document mapping, and transformation.
Microsoft Dynamics			
NAV (Navision)	Five to 100	.Net, Web services	COM, ODBC, Web services, file import
AX (Axapta)	100 or more	Dynamics AX's native integration hub, Application Integration Framework (AIF), is the set of design time tools and runtime framework components that expose core AX functionality as a 100% standards-compliant Web services programming model built on WCF (.Net 4.0). It natively supports rich EAI (enterprise application integration)-specific features and functionality that facilitate consumption and production of data in different formats (including Excel, flat files, XML, and text files) over a wide variety of synchronous and asynchronous transports, accommodating for flexible and rich business process semantics.	
GP (Great Plains)	Five to 100	GP has 350 Web services out of the box. The Web services are built on WCF (.Net 3.5). There are also three custom subsystems below the Web services layer. Microsoft uses Windows Authentication for its services layer. It has a custom security layer for roles, security storage, and caching as well as a policy layer to apply behaviors to business logic (such as applying a default class ID during vendor creation). The exception system is a separate system that is secured by the security subsystem to ensure that no data is leaked over the Web that might be contained in an exception.	

56991   Source: Forrester Research, Inc.

Figure 4 Comparison Of Choices For ERP Spoke Solutions (Cont.)

Spoke application On premise	Typical scale of spoke business unit	Hub integration	
		Process	Data
Oracle			
JD Edwards EnterpriseOne	Spoke sites using JD Edwards EnterpriseOne could range from a few hundred to more than 1,000 users. Servers could be from one single instance to several depending on lines of business and IT policy regarding consolidation.	Spoke is usually a separate division (international operations) or line of business.	Data is usually integrated through financial consolidations. Global supply chain visibility is usually provided through supply chain planning applications.
JD Edwards World	Spoke sites using JD Edwards World could have up to several hundred users. Servers could be from one single instance to several depending on lines of business and IT policy regarding consolidation.	Spoke is usually a separate division (international operations) or line of business.	Data is usually integrated through financial consolidations. Global supply chain visibility is usually provided through supply chain planning applications.
SAP			
SAP Business All-in-One	Unlimited number of professional users	Preconfigured integration scenarios* Note: Availability of scenarios may vary based on solution.	• SAP NetWeaver Process Integration or SAP Business One Integration for SAP NetWeaver (B1iSN) • B2B on-demand integration accomplished via the services of selected business-ready network providers
SAP Business One	Up to 60 professional users		• SAP Business One Integration for SAP NetWeaver (B1iSN) • B2B on-demand integration accomplished via the services of selected business-ready network providers

*Local sales — central and local delivery, returns and complaints, central contract sourcing, financial consolidation, cash and liquidity forecasting, in-house cash, master data distribution for integration scenarios, B2B on-demand order-to-cash, B2B on-demand procure-to-pay

56991 Source: Forrester Research, Inc.

Figure 4 Comparison Of Choices For ERP Spoke Solutions (Cont.)

Spoke application On demand	Typical scale of spoke business unit	Hub integration	
		Process	Data
Epicor			
Epicor ERP (Express Edition)	Up to 50 employees	Preconfigured integration scenarios planned as Epicor Corporate Connect. Typical deployments are small business units or startup operations with integral MDM and financial-level consolidation. Supports integration between Editions (including Express Edition on demand) and integrating at a financial level to a corporate Tier-1 ERP system.	Epicor delivers more than 830 business objects, each exposed as a .NET Web services and can orchestrate on-premise and on-demand services using Epicor Service Connect. Epicor delivers embedded master data management (MDM).
NetSuite			
NetSuite OneWorld	Up to 2,000 employees	Typically divisions, subsidiaries, or countries run NetSuite OneWorld, integrating at a financial level with an on-premise ERP system at corporate.	NetSuite delivers integration at a financial level with summary journal entries to corporate ERP (SAP or Oracle Financials) from NetSuite OneWorld subsidiaries. It provides normalization to divisional reporting currencies managed in OneWorld. NetSuite uses the SuiteCloud platform for integration (Web services and JavaScript integration).
NetSuite OneWorld Ecommerce	Up to 2,000 employees	NetSuite uses its integration cloud Ecommerce to integrate with on-premise ERP within the division or across the enterprise.	NetSuite can integrate data from its on-demand solutions such as NetSuite OneWorld Ecommerce with existing enterprise ERP systems. It uses the SuiteCloud platform for integration.
NetSuite OpenAir	2,000 employees or more (some enterprise deployments into businesses with thousands of employees, such as Siemens PLM)	NetSuite can integrate its cloud professional services automation solution (OpenAir) with existing on-premise ERP.	NetSuite can integrate data relating to project accounting, time and expense transactions, and employee and customer master data between NetSuite OpenAir and on-premise solutions such as SAP R/3.

56991   Source: Forrester Research, Inc.

Figure 4 Comparison Of Choices For ERP Spoke Solutions (Cont.)

Spoke application	Typical scale of spoke business unit	Hub integration	
On demand		**Process**	**Data**
SAP			
SAP Business ByDesign	Unlimited number of professional users	Preconfigured integration scenarios will be available beginning in 2011. Note: Availability of scenarios may vary based on solution.	• Integration between ByDesign and SAP solutions will be available and announced in FY 2011. • For integration with partners where protocol/format transformation is required (e.g., suppliers via ANSI X12), the services of a communication service provider solution will be used. • For integration with third-party applications and third-party partners where no protocol/format transformation is required, a direct connection will be used.

56991 Source: Forrester Research, Inc.

RECOMMENDATIONS

DETERMINE THE BEST STYLE OF GLOBAL ERP FOR YOUR OPERATING MODEL

The best ERP standardization model is not necessarily the least complex or even the one with the lowest total cost — the best ERP standardization model depends on the relationship between a firm's hub and its business unit spokes, and that in turn depends on market factors such as patent or trademark protection in local markets. When formulating their ERP standardization policies, application development and delivery professionals should carefully consider:

- **Current and future likely operating models.** Application development and delivery professionals should recruit line-of-business colleagues to articulate operating requirements. The most-useful colleagues will be able clearly to articulate the group strategy in relation to their business unit. They will be able to explain the likely level of standardization for operations and group-level suppliers and customers. More importantly, they will help application development and delivery colleagues establish and gain acceptance for the business rationale of the chosen ERP hub-and-spoke strategy.

- **The relative attractiveness of "on-premise" and "on-demand" solutions.** Application development and delivery professionals will need to understand from infrastructure and operations colleagues the constraints imposed by existing and prospective connectivity challenges that might mandate "on-premise" rather than "on-demand" solutions and the sensitivity of data that might require secure hosting rather than management in a multitenanted solution.

- **Deployment of new technologies.** Smart application development and delivery professionals will capitalize on maturing federated technologies such as information-as-a-service or customer hubs in order to meet requirements to both enable business units to compete in their individual markets and to enable the enterprise to achieve effective synchronization of master data and maintenance of financial and operational control at a group level.

SUPPLEMENTAL MATERIAL

Methodology

Forrester fielded its May 2010 Global Enterprise Resource Planning Online Survey to 59 application development professionals. Forrester fielded the survey during May 2010. Respondent incentives included a copy of the final report.

Companies Interviewed For This Document

Computer Sciences Corporation (CSC)

DARCL Logistics

Epicor Software

GlaxoSmithKline

HCL Technologies

Ignify

Infosys Technologies

ITC Infotech

LORD Corporation

Microsoft Dynamics

NetSuite

Novartis

Oracle

Planvisage

SAP

ENDNOTES

[1] Even if firms agree on a common choice of ERP application from a vendor like Oracle or SAP, they often have difficulty agreeing on a standard set of processes across all divisions and locations. The result? They choose incompatible implementation options and inconsistent product, customer, and supplier coding systems and end up with multiple ERP instances. Of our survey sample, 34% declared that they run more than 10 instances of ERP. See the April 26, 2004, "ERP Alone Won't Fix CPG Data Synchronization Problems" report.

[2] Single-instance ERP has been a key driver of investment activity over the past several years, but many large enterprises have found this to be impossible or impractical. A recent variation gaining momentum is to standardize on not one, but two, ERP systems — a corporate and large business unit platform (e.g., SAP or Oracle) and an SMB solution for smaller units (e.g., Epicor, Microsoft Dynamics, NetSuite, SAP Business All-in-One, SAP Business ByDesign, SAP Business One). The coexistence of two ERP platforms enables more rapid deployment to the smaller units with less overhead, with the caveat that the second tier must be: 1) centrally supported and standardized, and 2) integrated back to the mother ship. See the December 17, 2009, "Trends 2010: ERP Applications" report.

[3] Integration is still a hot topic for many enterprises, and this has led to a 34% increase in integration-related inquiries during the past 12 months compared with the previous year. This increasing volume reflects multiple factors, including an improving economy and a resurgent desire to upgrade integration capability to support higher levels of business agility. See the May 28, 2010, "Inquiry Spotlight: Integration Inquiries Are Up 34% Over The Previous Year" report.

[4] Although originally finding a home with manufacturing, today's $38.3 billion enterprise resource planning (ERP) market proves that it has become the transactional centerpiece for most enterprises. As the technology has grown out from finance to also encompass areas like customer relationship management (CRM) and supply chain management (SCM), business process (BP) professionals have continued to inquire about ERP selection, contract negotiation, instance consolidation, consultancies, and upgrades. During this next major ERP replacement cycle, BP professionals face a unique opportunity to position themselves as knowledgeable internal resources who can apply valuable insight and surface key criteria to successfully complete their own projects See the October 17, 2008, "Inquiry Spotlight: ERP Strategies" report.

[5] A Forrsights survey of 104 consumer products firms, combined with data from InformationWeek's survey of 500 firms, established that CPG firms plan to spend, on average, 2.1% of revenues on IT. This was considerably less than the 5.3% of revenues that financial services and insurance firms plan to spend on IT, but it's more than the 1.5% planned on average by retail and wholesale firms. Forrester's latest data shows that CPG IT spend is dominated by labor costs and the dramatic struggle to simplify and standardize global apps portfolios. See the December 28, 2009, "Industry Essential: Consumer Packaged Goods Industry" report.

[6] In Forrester's 149-criteria evaluation of customer hubs vendors, we found that Siperian, Initiate Systems, IBM, Dun & Bradstreet (D&B) Purisma, and Oracle UCM led the pack because of their broad support for multiple industries, number of successful live customers, significant research and development (R&D) investment in advanced functionality, and experience with large data volumes. Sun Microsystems debuted in the top slot among Strong Performers with solid data deduplication, architecture, and open-source options. Meanwhile, SAS DataFlux debuted as a Strong Performer building from its rich data quality history. Oracle CDH and SAP continue to progress as short-list alternatives among install base clients. Evaluated vendors continue to improve their offerings awaiting improved maturity among customers. See the August 4, 2008, "The Forrester Wave™: Customer Hubs, Q3 2008" report.

7   Unlike enterprise information integration (EII), enterprise application integration (EAI), and extract, transform, and load (ETL) technologies, IaaS offers a flexible data integration platform based on a newer generation of service-oriented standards that enables ubiquitous access to any type of data, on any platform, using a wide range of interface and data access standards. In addition, IaaS goes beyond data integration: It can support multiple requirements, including "single version of the truth," real-time business intelligence (BI), enterprisewide search, high-performance transactional applications, federated views across multiple lines of business (LOBs), and improved security for access to sensitive data. See the February 10, 2010, "The Forrester Wave™: Information-As-A-Service, Q1 2010" report.

8   The enterprise resource planning (ERP) market continues to mature at the upper end as the two titans — Oracle and SAP — look to extend their footprints in multinational enterprises. Industry functionality is becoming paramount for success in the ERP market, a trend that has driven Oracle's application acquisitions of late. SAP, meanwhile, is banking its future growth on small- to medium-size businesses (SMBs) as it works to solidify its subscription offering. These giants control more than half the market, but other vendors — including Agresso, Epicor Software, Infor, Lawson Software, Microsoft, and The Sage Group — are performing well using a variety of approaches to achieve differentiation. The ERP applications market, currently about $38 billion in total revenue, is growing at an annual rate of 6.9% and will reach $50 billion by 2012. Business process and applications professionals should build on ERP as the backbone transactional system of record, supplementing with best-of-breed process solutions and industry-specific applications where appropriate. See the June 23, 2008, "ERP Applications 2008: The Battle Goes Vertical" report.

9   About 75% of organizations deploy mobile applications to increase worker productivity, and 65% to increase employee responsiveness. Forty-eight percent are focused on resolving customer and internal issues faster. Overall improved customer satisfaction is an important driver of mobilizing applications for 42% of firms. See the September 3, 2010, "Insights For CIOs: Make Mobility Standard Business Practice" report.

10 NetSuite OneWorld is deployed by firms like Jollibee Foods Corporation, operating more than 1,800 stores in 40 subsidiaries across Asia and North America, integrating to a corporate instance of Oracle Financials. The US division of Suntech Power (NYSE: STP) runs NetSuite to manage global sales opportunities and financial reporting across a complex chart of accounts and report to a parent using SAP. Software AG integrates to its SAP R/3 head office hub using the NetSuite OneWorld solution, which it runs in subsidiaries in 59 countries across the world.

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The Case For Two-Tier ERP Deployments

ERP Optimization Strategies For Organizations Seeking Innovation, Cost Savings, And Renewal

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February 28, 2011

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R E S E A R C H

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Purpose and Intent

Today's organizations need agile business systems to meet rapidly changing market requirements. This best practices report identifies how two-tier ERP strategies can provide opportunities to improve business agility and reduce long-term ownership costs. Several case studies highlight four scenarios where a two-tier ERP strategy delivers business value.

Executive Summary

Organizations continue to face an onslaught of business requirements that their existing ERP systems can no longer address. Stuck in the past century, these ERP systems are expensive to run, difficult to upgrade, and impossible to modify for today's fast changing requirements. Two-tier ERP has emerged as a strategy to enable legacy optimization while reinvigorating the organizations existing ERP systems. Abundant case studies show success with four common two-tier ERP strategies. 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.

Single Instance ERP Increasingly Difficult To Justify Value

The holy grail of an ERP implementation used to be the single instance deployment. Perceived business value included integrated business processes, lower cost of ownership, and contained master data. However, in the past decade, organizations have discovered the failure of the single instance strategy. Instead of the benefits, organizations experienced a slower pace of innovation from incumbent vendors, inability to meet emerging business requirements, and high maintenance fees with no value in sight. Add a slew of rapidly changing business requirements battling rigid legacy infrastructures and CIOs have been forced to abandon the single instance mantra in order to achieve apply necessary business innovation and achieve pragmatic business value.

Two-Tier ERP Emerges In Popularity

Two-tier ERP refers to a business and technology strategy that enables organizations to keep existing ERP systems at the corporate level while empowering divisions or business units to innovate with a second ERP system. Consequently, two-tier ERP deployments continue to gain favor. Why? Organizations must optimize legacy systems while delivering on business value. In fact, in a recent Constellation Research survey, 48% of respondents indicated that they are considering at two-tier ERP strategy (see Figure 1). These results reflect a 27-point increase from 2009.

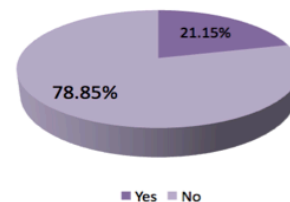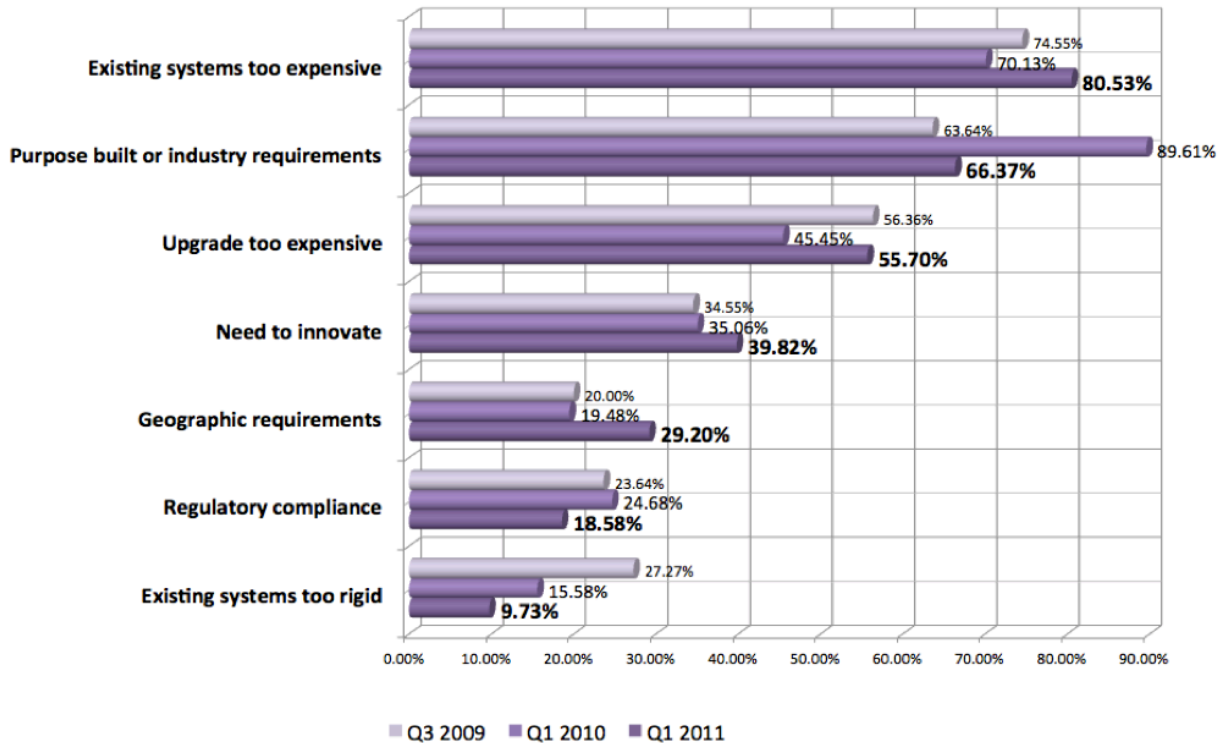## Figure 1. Interest In Two-Tier ERP Continues To Grow
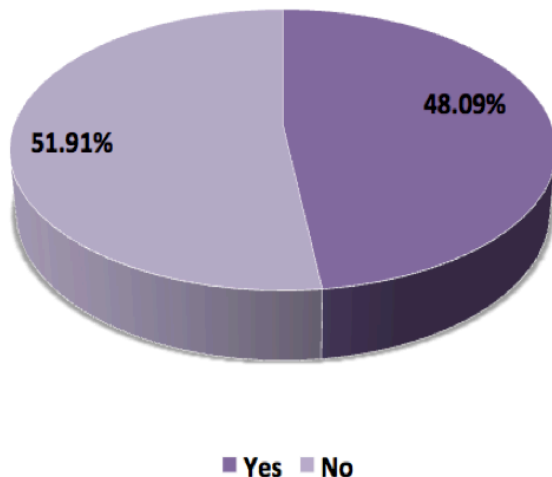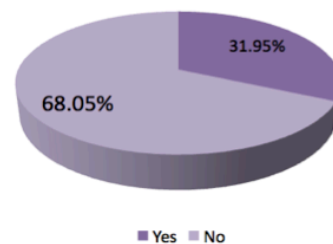
Source: Q1 2011 Software Insider Next Gen IT Leader Survey (n=113/235), Q1 2010 (n= 77/241), Q3 2009 (n = 55/260)
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Purpose Built Capabilities And Cost Savings Drive The Push For Two-Tier Apps Strategies

When asked why two-tier ERP is being considered, most respondents saw the strategy as reducing costs and driving business flexibility (see Figure 2). In fact, cost rises to the top in 2011 as the key reason to move to two-tier ERP. Driving factors remain relatively consistent from 2009 to 2011 and include:

- **Existing systems too expensive (80.5%).** ROI calculations on existing ERP systems often show high cost factors. The culprits – overruns in implementation, customization of reports, maintenance payments on shelfware, increasing costs to staff, and rigidity of system.

- **Purpose built or industry requirements (66.4%).** Next gen IT leaders remain frustrated by the lack of innovation and progress in completing out promised functional footprints. As market competition intensifies, industry specific, purpose built solutions provide the competitive advantage needed for survival and success.

- **Upgrade too expensive (55.7%).** Many customers face upgrade costs equivalent to reimplementation. Cost factors could equal up to 85% of the original implementation cost.

- **Need to innovate (39.8%).** Some organizations find that their vendors have not innovated fast enough. Social channels have not been accounted for. User experiences seem dated. Reporting and analytics require experts to deliver. Paucity in mobile solutions hinders productivity.

- **Geographic requirements (29.2%).** Country or region specific requirements may require two-tier strategies based on geography. Some ERP systems lack the language or tax requirements and a separate instance will prove cheaper to run than customizing a monolithic large ERP solution.

- **Regulatory compliance (18.6%).** The need to meet industry specific regulatory compliance drive organizations to choose purpose built solutions. Many choose SaaS to mitigate the costs of legislative and regulatory updates.

- **Existing systems too rigid (9.7%).** Rigidity may lead to the inability to integrate and work with other systems, new channels, and emerging stakeholders. Integration solutions can assist, but long term, next gen IT leaders will begin to surround legacy solutions with newer technologies.

Figure 2. High Cost And Business Requirements Drive Two-Tier ERP Preference

Source: Q1 2011 Software Insider Next Gen IT Leader Survey (n=113/235), Q1 2010 (n= 77/241), Q3 2009 (n = 55/260)

Tech Advancements Enable Success In Two-Tier ERP

Several factors have given rise in the growth of two-tier ERP. Competitive alternatives, SaaS and cloud deployments, improved integration, and enhanced master data management improve the success rates and ROI for Two-Tier ERP apps strategies.

- **Improved competitive offerings.** Despite the dominance of Tier 1 ERP vendors such as Oracle and SAP in the ERP market, a number of Tier 2 on-premises vendors have delivered key features such as last mile functionality, multi-currency, multi-org, greater than1000 concurrent user scalability, and compelling user experiences. In many cases, these vendors have delivered better industry specific and geographic specific capabilities than Oracle and SAP.

- **SaaS and cloud deployments.** Subscription pricing, continuous innovation, and rapid ROI continue to drive organizations to consider SaaS and Cloud alternatives in two-tier ERP strategies. SaaS and Cloud products are best placed to deliver the quickest time to value in a two-tier ERP strategy. When combined with an overall legacy optimization strategy, many clients often apply SaaS and Cloud to both a renewal program and two-tier approach.

- **Integration technologies.** Advancements in open standards API's, web services, and process integration libraries have improved overall integration capabilities. Organizations can easily move away from point to point approaches and transition to web services based approaches using market leading tools such as Boomi, Informatica, and Pervasive Software.

- **Data management.** Improvements in overall master data management systems support heterogeneous environments. As more and more data resides outside of the firewall, technologies simplify the publish and subscribe requirements required to federate data. Lineage of source data, effective dating, and archiving tools have improved to a point where a single data model is no longer practical nor delivers business value.

Case Studies Reveal Many Opportunities To Achieve Business Value

Organizations seeking a pragmatic approach should consider four scenarios where Two-Tier ERP strategies make sense:

1. **Addressing different corporate business models.** Organizations with very different lines of businesses often consider hub and spoke implementations. The drive to standardize on a single ERP system makes little sense when one subsidiary delivers services and the other manufactures goods.

   For example at several large multi-national conglomerates, a core SAP or Oracle system addresses corporate requirements in finance, payroll, and human resources. However, multiple tiers of ERP are used to to handle a diverse range of product offerings including order management for a warranty business, dealer management for financial services, and financials for power generation manufacturing. In some cases, organizations have even begun replacement of aging payroll and HR systems with Cloud based solutions.

   "Financials will always feed to our core SAP system. But there's no way we could run one ERP like SAP for the entire business. Our business models are so different that we have to run two-tier ERP in our divisions," said a VP of Business Apps and Architecture at a large Fortune 500 company.

2. **Standardizing Tier 2 ERP for global compliance.** Organizations with a hodge-podge of regional and local systems aspire to deliver one global end-to-end solution to meet financial compliance and global requirements. Unfortunately, the cost structures to deploy the Tier 1 ERP corporate system across the organization often do not justify the investment.

At many global companies, requirements such as global localizations, multi-currency, and multi-language require consolidation of the Tier 2 ERP systems. These organizations often run up between 5 and 15 different Tier 2 ERP solutions. After consolidation around single Tier 2 ERP system, one global CPG manufacture achieved the benefits of lower deployment, ownership, and training costs with a consolidated two-tier ERP strategy.

"Total deployment costs came in at 1/2 the cost of our Tier 1 Oracle deployment. It takes less time to build reports and train people in our new system and it integrates better with Microsoft Outlook", said the deputy CIO of a large multi-national CPG company.

3. **Improving country specific deployments.** Deploying a full scale Tier 1 ERP solution makes little sense for new subsidiaries when options exist at lower operating costs and higher ROI. More importantly, subsidiaries often require country specific deployments, last-mile vertical capabilities, and solutions that require minimal amounts of corporate training.

For instance, a large Japanese manufacturer found cost savings with local based systems in North America and EMEA. Global localizations, multi-currency, and multi-language capabilities exceeded the Tier 1 solutions at half the cost. At a project based business, one company deployed a cloud base ERP suite at the country level and kept their EMEA based corporate system on SAP.

"Going to country specific deployments resulted in faster deployment times, quicker updates to regulatory and legislative changes, and a 17% reduced IT help desk costs," said the Brazil country manager of a Japanese entertainment subsidiary.

4. **Crafting phased modernization efforts.** Organizations looking to upgrade and modernize their systems may keep some legacy systems in place as they upgrade to more modern systems. Cloud based systems provide an opportunity for organizations to test out regional deployments and then expand to corporate wide implementations.

One large entertainment concern has kept their financials systems and updated their retail systems with a more modern, web services based, SOA architected product. A global manufacturer started with a SaaS CRM solution and eventually put a full SaaS suite in to replace a legacy ERP system. The tier-two solution eventually became the core system.

"We started with a SaaS CRM offering to complement a legacy ERP system. Over time, we replaced the legacy system with a full SaaS Suite including ERP. Now that ERP system is our cores system and we augment it with a two-tier strategy at the plant level", said a Director of IT at a mid-market manufacturer.

The Bottom Line: Start With A Few Key Two-Tier ERP Requirements

Organizations embarking on a two-tier ERP strategy should consider a few key requirements during the vendor selection process:

- **Multi-multi-multi.** Organizations in global environments require multi-lingual, multi-currency, and multi-org capabilities. Last-mile solutions should be delivered at the local level.

- **Single instance support.** Subsidiary support for a single instance mitigates consolidation nightmares. Minimize the number of two-tier instance.

- **Local accounting standards support at the sub level.** Sub-level support should include roll-up to the appropriate currency at a global level to reduce the number of country specific instance.

- **Industry specific and last-mile solutions.** Consider the cost of configuration in the Tier 1 system versus the Tier 2 system to meet business requirements. Many Tier 2 systems enable cost effective two-tier deployments.

- **Legacy optimization.** Compare the cost of an upgrade with the deployment of a Tier 2 system. Consider the overall integration costs and change management requirements to support multiple instances.

Disclosures

Our client's trust is important to us. Given the confidential nature of the case studies used, client names have been withheld for both courtesy and privacy reasons. In addition, Constellation Research provides open and transparent information regarding our financial relationships. With our clients permission, we plan to publish a list of our client base on our website in 2011.

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Warmest regards,

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The ERP Dilemma for Multi-Entity Companies

Growth always comes at a cost. With every new subsidiary, geographic location or acquisition, IT and business leaders confront the daunting question of how to equip satellites with ERP capabilities that promote operational integration, consistent governance, and financial and performance visibility across the distributed enterprise.

In many cases, growing subsidiaries use a patchwork of desktop systems or custom-built applications poorly suited to growth. An acquired company may have in place legacy systems that don't integrate with the SAP, Oracle or other ERP solution in place at headquarters. Establishing a new office in a new country raises questions of what business software to install. Or on-premise ERP may be in place at a satellite, but the vendor's phase-out of maintenance and support forces the company to consider a costly and time-consuming upgrade.

Until several years ago, the ideal for multi-entity and multi-national companies was considered to be a single-instance ERP deployment that extended from headquarters to subsidiaries, divisions or geographic locations. But on-premise ERP in a distributed environment has proven notoriously difficult to accomplish, to the extent that some companies abandon the effort in mid-stream. The culprits:

- **High cost and complexity:** Extending on-premise ERP to satellites means large capital expenditures for software, servers, backup and network infrastructure. Add in IT personnel, training, maintenance and upgrades and the cost can become staggering.

- **Lengthy implementation cycles:** It's not uncommon for an on-premise ERP implementation to take six months, nine months, even a year. That's time lost in the race to grow the business across subsidiaries and divisions.

- **Limited agility and speed:** The inflexibility of hard-wired ERP in a distributed environment often introduces costly delays to business processes, including financial management and reporting, CRM, ecommerce and supply chain.

- **Limited local control and customizability:** Local managers are often frustrated at inability to customize on-premise ERP, requiring IT assistance and a convoluted process with HQ leaders who lack visibility into satellite operations.

Given limited IT budgets and the need to quickly seize opportunities, many multi-entity and multi-national companies are rethinking single-instance ERP strategies. Gartner, in a report on two-tier ERP strategies, said: "Despite its attractions, a single-instance, single vendor ERP suite strategy isn't right for every organization, and can be very challenging to achieve. It's rare than any organization can actually deliver all of its ERP functionality in a single-instance, single-vendor solution."[1]

A two-tier model, with a cloud-based ERP solution in place at satellites that integrates with a corporate SAP, Oracle or other ERP system, has emerged as a compelling option.

[1] Gartner, A Two-Tier ERP Strategy: Is It Right for You?, July 28, 2010.

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The Two-Tier Approach: Preserving Corporate ERP Investments while Moving Satellites to the Cloud

Cloud-based solutions for ERP / financials, CRM, ecommerce and supply chain are increasingly in place at subsidiaries, divisions, and geographic locations of multi-entity companies in a two-tier model. This hybrid approach, sometimes called a hub and spoke, gives organizations the lower cost, faster time to value and cross-enterprise transparency of a cloud solution, while enabling the company to preserve its investments in on-premise ERP at headquarters. Figure 1 depicts a typical cloud/on-premise ERP two-tier model.
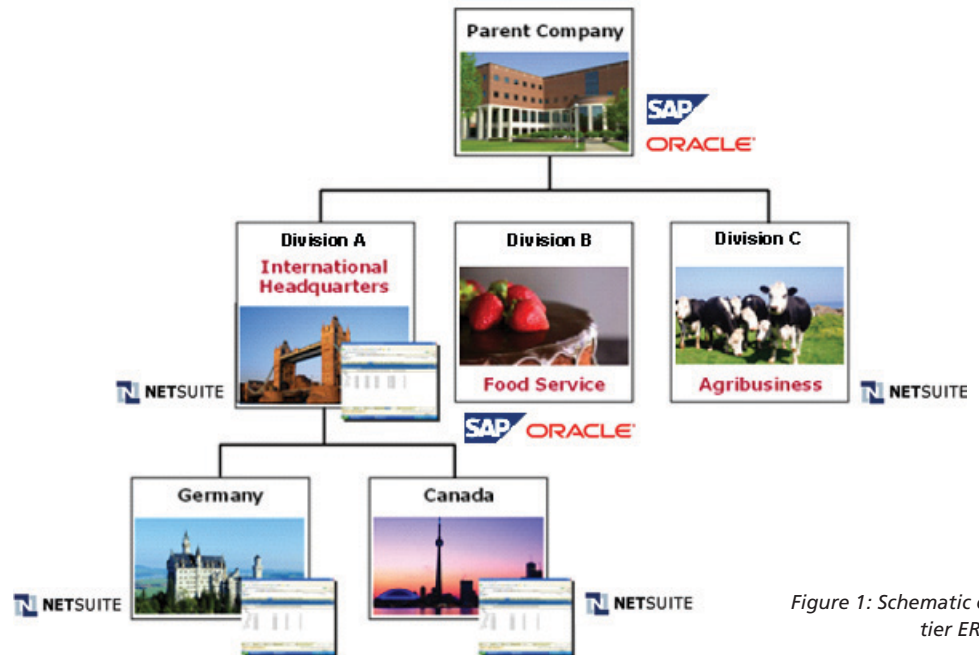

Figure 1: Schematic of a two-tier ERP model.

Under this two-tier approach, a satellite running a cloud business management solution can either be autonomous and decentralized, or can share services with the parent running SAP, Oracle or another ERP system. If the satellite is autonomous, it runs all of its operations on the cloud ERP solution, but shares some master data with the corporate office. In addition, it typically sends consolidated operational and financial information to the SAP or Oracle system at the corporate/parent divisional level.

On the other hand, if the division or business unit shares common services (such as accounts payable, invoicing or order management) with the parent that is running SAP or Oracle, then the two-way integration between its cloud system and the parent system allows it to send transaction-level data to the parent for it to complete such transactions. Integration between the cloud solution and corporate ERP instance is essential for success. Today, the best cloud-based ERP solutions will offer proven, prebuilt integration technology that enables master data synchronization, financial consolidation and business process coordination between the dual systems.

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Benefits of a Two-Tier ERP Approach

The two-tier ERP model, comprising a cloud system and on-premise ERP, offers four principal benefits: 1) lower capital and ongoing IT costs 2) greater operational efficiency and visibility 3) increased speed and flexibility and 4) support for regulatory and geographic requirements.

1) Lower Capital and Ongoing IT Costs

As IT budgets tighten, CIOs are looking for ways to reduce IT spend without sacrificing key initiatives. In a two-tier ERP model, a cloud-based system offer significantly lower total cost of ownership (TCO) since it eliminates the capital expenditures of software, servers, backup and network systems, as well as expenses for new release upgrades and support and maintenance contracts typical of on-premise ERP. In addition, their intuitive user interface (see Figure 2) significantly reduces the costs associated with user training and accelerates adoption.

Research by the Software and Information Industry Association (SIIA) has shown that cloud-based systems have TCO five to 10 times less expensive than traditional software. For example, NetSuite customer Asahi Kasei Spandex America has calculated that it saves $700,000 a year by using NetSuite, as compared to an SAP system. As a result, a two-tier ERP approach frees up funds and IT resources for more strategic, value-added projects.
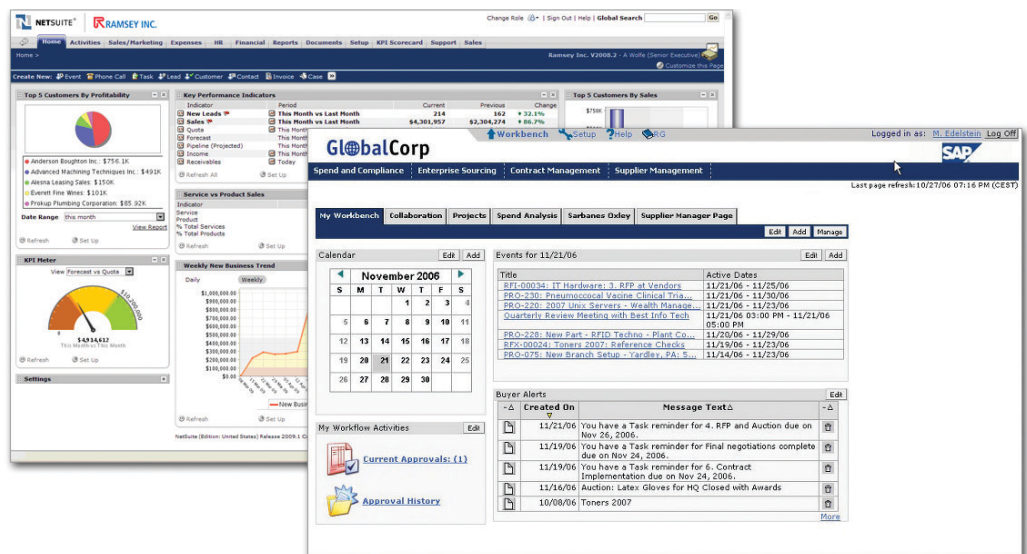

Figure 2: The user interface of cloud solutions such as NetSuite is more intuitive than SAP.

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2) Greater Operational Efficiency and Visibility

The process complexity in a large division is typically very different from that of a small division. For example, a $30 million division with an accounting staff of two needs a fundamentally different workflow than a $5 billion division with a 300-employee accounting staff. If the smaller division is forced to implement the same business processes as its $5 billion cousin, it will soon be smothered by process overload. In addition, the costs of ongoing training and customizing the system to support a unique process for a small division can quickly add up. In a two-tier ERP model, a cloud-based enterprise system provides just the right process complexity for a small division or business unit, without sacrificing the needs of the large division, which may use SAP or Oracle.

Besides operational efficiency, cloud-based ERP in a two-tier model provides superior financial and performance visibility into satellites for the parent company. Companies can track performance in real time with full access to a free flow of financial, customer, product, and supply chain information between satellite and customer.

3) Increased Speed and Flexibility

For many multi-entity organizations, speed is of the essence in capitalizing on opportunities with new subsidiaries, new markets, and new acquisitions. These companies can ill afford an on-premise ERP implementation that drags on for six or nine months or even more—particularly if implementation is to be done sequentially across multiple locations. According to SIIA research, cloud solutions are typically deployed 50% to 90% faster than on-premise ERP.

Post-deployment, smaller subsidiaries and divisions need an ERP system that enables them to exploit the unique strengths they enjoy over their large counterparts—a sharp focus, greater agility and a close relationship with customers, employees and suppliers. To convert these strengths into a sustained competitive advantage, the satellites of a large company need to be able to implement new strategies quickly and have the flexibility to continually change their business processes in response to market needs. However, the rigidity and the complexity of a single-instance corporate ERP system can prevent them from making quick changes to their environment, thereby compromising their agility. A two-tier ERP model addresses this issue by providing the corporate office with the overall control and visibility it needs, while enabling the smaller divisions to unleash their strengths of speed and flexibility into their marketplace.

4) Support for Regulatory and Geographic Requirements

When a large company is preparing to spin off parts of its operations or forms a joint venture, it needs to deploy a separate ERP system in that organization to meet regulatory requirements, while still ensuring that relevant financials can be rolled up for overall reporting purposes. A two-tier ERP model enables the large company to migrate the operations of that entity to a separate system in a very cost-effective manner and at a rapid pace. In addition, companies expanding into new territories often require specific support in their ERP system for country or regional currencies, taxation and language.

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When to Deploy a Two-Tier ERP Approach

Given the benefits of a two-tier ERP approach, one of the biggest questions for an organization is when it should consider migrating to a two-tier ERP model. Given today's economy, tight budgets and scarce internal resources, companies require a sound cost justification for transitioning to a two-tier model. The following triggers will almost always provide a positive return on investment (ROI) for transitioning to a two-tier ERP model:

- **Trigger 1: Expiring support contracts for customized systems.** Many large companies with on-premise ERP in place at satellite operations have heavily customized those systems to meet their specific needs and hence have not kept up with new releases. Over time, as SAP and Oracle end support for these old versions, companies face the choice of specialized support at a high premium (often priced at 23% to 25% of net license fees per year), or the prospect of a costly and risk-laden upgrade. However, such an upgrade is seldom straightforward, and can amount to a near re-implementation for satellites with heavily customized ERP. By implementing a two-tier ERP strategy, moving smaller divisions to a cloud-based ERP, these companies can address their dilemma at lower cost, greater speed and reduced risk.

- **Trigger 2: Acquired subsidiary.** If an SAP or Oracle customer has grown through acquisition, it will have accumulated multiple ERP systems, including home-grown systems and ERP systems from other vendors. As these systems age, the expense of maintaining and customizing them increases every year and reaches an inflection point where it's more cost-effective to migrate to a new system rather than to stay on an old system. The customer is now at crossroads—should they standardize on single-instance ERP, retire all their old systems and switch them to SAP or Oracle, or maintain a hybrid environment and migrate some of the legacy systems at smaller divisions to a lower-cost cloud system? A two-tier ERP approach will significantly reduce the cost and risk associated with retiring these legacy systems.

- **Trigger 3: Divisional spin-off.** When a company is preparing to spin off a division, it may need to move to a separate system to meet regulatory requirements. Instead of implementing a separate instance of an SAP or Oracle system at that operation, the company can save time and money by adopting a two-tier ERP strategy and implementing an cloud-based enterprise system for that division.

Trigger	Trigger Examples
Trigger 1	Heavily customized SAP or Oracle system in place at satellites is multiple versions behind. Need to upgrade to newer version.
Trigger 2	Acquisitions resulted in multiple ERP systems, including legacy and homegrown. Maintenance costs are very high. Need to retire such systems and migrate off them.
Trigger 3	Plans to spin off a division requiring the new division to be on a separate system to meet regulatory requirements.
Trigger 4	A business unit has a very different go-to-market than the rest of the company. Imposing the corporate system on this division may not work well without extensive customization to the SAP or Oracle installation. Should migrate this business unit to a separate system.

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• **Trigger 4: Independent business unit.** A small business unit within a company—for example, a small niche services business unit within a large product company or a small ecommerce division within a large specialty retailer—may have a very different go-to-market business model from its other divisions. Without extensive and expensive changes, the configuration of its single-instance ERP system will constrain its operations. This business unit should, for competitive reasons, move to a separate system. Instead of moving to another instance of an SAP or Oracle system that's configured to meet its specific process needs, the business unit can save a great deal of time and money by adopting a two-tier ERP strategy.

We believe that under these trigger situations, it is extremely cost-effective to migrate quickly to a two-tier ERP environment. Any delay adds to the cost, risk or loss of competitive advantage in the marketplace. A two-tier ERP approach provides a significantly higher ROI than migrating to an SAP-only environment.

System Requirements for Two-Tier ERP

To successfully implement a hybrid ERP approach, the cloud-based enterprise application being used for satellite operations should meet the following criteria:

• **Business process modeling.** Whether the business unit is just a sales and marketing operation or includes distribution, the enterprise application should be able to comprehensively model the business processes that need to be supported in a cloud framework. The list includes:

- Management of customer contacts, sales pipeline and sales operations
- Management of marketing campaigns, leads and qualification
- Local ecommerce operations
- Order entry and order management
- Local customer invoicing and accounts receivables management
- Local inventory management
- Shipping and returns
- Local vendor management
- Procurement, receiving and accounts payables management
- oLocal financial reporting and taxation
- Compliance reporting
- Roll-up reporting and consolidation.

• **Flexible configuration.** The enterprise application should enable a combination of decentralized and centralized configurations, where some of the processes listed above are managed by the local cloud-based system and the remaining processes are managed by a centralized ERP system.

• **Full financial roll-up.** The enterprise application should enable a multi-tier organizational hierarchy and consolidation, where the information from local business units can be rolled up into one or multiple levels of hierarchy. For example, the Taiwan operations might roll up into the Far East business unit, which rolls up into the APAC business unit—all on the cloud enterprise application system, which eventually rolls into the corporate ERP system.

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- **Integration capabilities.** The enterprise application should have the ability to integrate with corporate ERP (or roll up transactional data into the parent system, including invoices, purchase orders, shipments, inventory adjustments, invoicing, sales orders, receivables and payables integration. Transaction-level data integration supports a model in which a number of processes such as accounts payables or receivables may be centralized within the corporate ERP instance. Roll-up level integration supports a decentralized model in which the division or business unit is fairly autonomous and rolls up consolidated statements to corporate.

- **Global services and support.** Professional services (either from the cloud ERP vendor or its partners) and support must have a global footprint, and customers should be able to source skills locally. This is a critical requirement since the customer is likely to implement the cloud ERP system in divisions that are operating in smaller markets, and any inability to access local resources significantly reduces the benefit of a two-tier ERP model's lower cost and risk.

- **International capabilities.** The enterprise application should support multiple languages, currencies, taxation rules, sales commission structures and reporting requirements.

Using NetSuite with SAP or Oracle in a Hybrid ERP Model

With NetSuite OneWorld editions specifically for SAP and Oracle, NetSuite became the first cloud ERP / financials vendor to enable a two-tier ERP model for "big ERP" environments. In use at multi-entity companies around the world, NetSuite OneWorld offers the cost savings and efficiency benefits of cloud-based business management for both front and back office at the satellite level, while enabling companies to preserve their investments in SAP or Oracle on-premise systems at the corporate level.

NetSuite OneWorld meets all the key requirements for complementing SAP or Oracle in a two-tier ERP model. It is the industry's first and only on-demand cloud suite that supports end-to-end business processes—financials, consolidation, CRM, sales, marketing, support, order management and fulfillment, purchasing and vendor management, inventory management, human resources and ecommerce—all in a single, integrated solution.

Additionally, NetSuite OneWorld provides comprehensive business intelligence to enable better, faster decision-making. It supports multiple subsidiaries, business units and legal entities all from a single NetSuite account, as well as seamlessly handling different currencies, taxation rules and reporting requirements, at a fraction of the cost of traditional on-premise ERP solutions. As a result, it can easily model the business processes of a satellite operation that a company wants to manage using NetSuite.

SuiteCloud Connect Integration Technology

As a part of this solution, NetSuite offers integration technology called SuiteCloud Connect, with versions specifically for SAP and Oracle (see Figure 3). SuiteCloud Connect enables SAP or Oracle customers to roll up data into the corporate-level ERP system, as well as any data that was captured in NetSuite OneWorld at the divisional level. For example, using SuiteCloud Connect for SAP, a user can roll up general ledger, order and

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revenue information from NetSuite to SAP for aggregate financial reporting purposes. Automated integration across common ERP data types such as journal entries, purchase orders, shipments, inventory, time entries and more improves transparency and streamlines financial close.
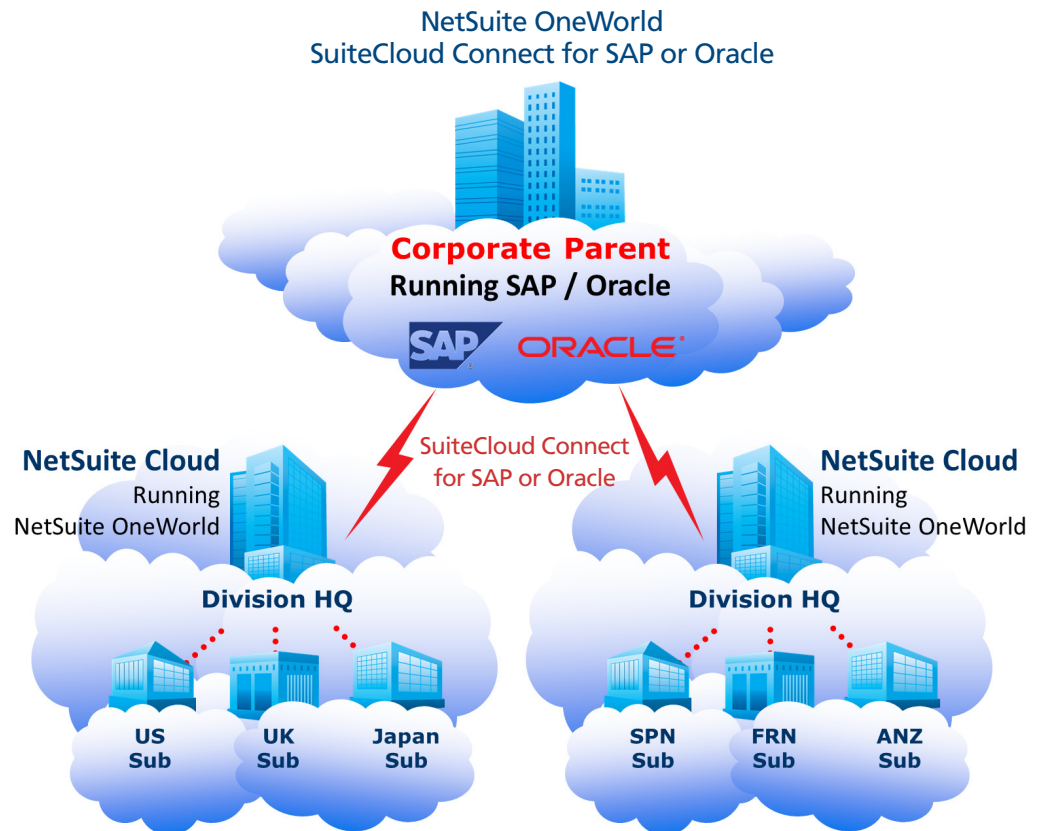

Figure 3: SuiteCloud integration framework for two-tier ERP.

In addition, SuiteCloud Connect for SAP and Oracle enables transaction-level data integration between the NetSuite OneWorld and the parent ERP. SuiteCloud Connect is based on a number of industry-standard technologies used for systems and application integration and data migration, including SOAP (web services), JavaScript , ODBC and CSV. These interfaces integrate the two solutions for various types of data as shown in Figure 3.

Summary

We believe that the two-tier ERP model has emerged as a compelling option for companies using SAP, Oracle or another on-premise ERP system at headquarters. Under this model, the company can still run its corporate operations and larger divisions on the in-house ERP system, but implement the cloud-based NetSuite OneWorld for its smaller or independent divisions, subsidiaries, locations or other satellites. This model significantly reduces the company's costs in implementing and/or migrating and managing ERP systems, while providing more operational flexibility, visibility and speed.

Jollibee Foods Corporation

Company
Jollibee Foods Corporation

Industry
Retail / Fast food

Location
Manila, Philippines

Applications Replaced
Multiple legacy and small-business solutions

NetSuite Product
NetSuite OneWorld

"If we used a platform like Oracle Financials, it would require significant capital investment and a lot of resources, including a large IT team to implement and maintain the system in each country. NetSuite provides all the capabilities we need internationally, in a timeframe and cost that supports our continued growth and development."

—Ysmael Baysa, CFO, Jollibee

International fast-food giant Jollibee grows to 1,800 restaurants around the world with NetSuite OneWorld in a two-tier ERP model, with Oracle Financials at headquarters.

Challenges

- To support more than 1,800 restaurants in about 12 countries, Jollibee needed a flexible ERP platform to support aggressive growth within its multinational, multi-subsidiary, multi-brand global operations
- The company realized it would be too costly and time-consuming to expand its Oracle Financials on-premise installation at headquarters to its worldwide operations
- Legacy solutions in place at regional level and email data exchange were inadequate for financial management and reporting or supporting an international supply chain.

Solution

- NetSuite OneWorld deployed for multi-brand restaurant operations in Vietnam, China, Taiwan, and the United States
- Vietnam implementation took two months, far less than required to roll out Oracle Financials, followed by rollout for 30 subsidiaries and 265 stores in China
- Jollibee now poised to rapidly extend NetSuite OneWorld to support continued multi-brand expansion into new international markets.

Results

- Fuller ERP integration with Oracle Financials at headquarters provides real-time global visibility and financial consolidation
- Supply ordering for China restaurants cut restocking costs, reduced order time from three days to one
- Regional managers enjoy self-service customization and local control for currencies, language, taxation and supply chain management
- NetSuite provides a foundation that will allow Jollibee to capitalize on growth opportunities with improved corporate governance, systems control and financial reporting.

NBTY (China) Trading Company Ltd.

"Our business is growing very fast at about 100% a year, so the challenge was how we could manage growth without investing a lot of money in IT systems and people to run them. NetSuite is a very good system that beats everything we compared it to and it makes the globe small. Our parent company is in New York and we're in China, and they get instant, real-time visibility into our performance."

—NBTY (China) Trading Company Ltd.

The Chinese subsidiary of world's largest vitamin supplement company, NBTY, uses NetSuite OneWorld to support 100%-a-year growth while syncing with Lawson ERP at U.S. headquarters in a two-tier model for global consolidation and visibility.

Challenges
- Sage Accpac ERP system used at the subsidiary level was too time-consuming and inflexible to support explosive growth, from small startup-like operation to multimillion-dollar subsidiary in just four years
- data entry times of up to 1 minute with hosted Sage system were "killing the business"; on-premise ERP expansion of Lawson ERP system used at headquarters would require extensive networking and localization
- financial reporting was slow and cumbersome with custom reports requiring engagement with Sage consultants.

Solution
- Replaced Sage Accpac with NetSuite OneWorld for China subsidiary across four offices for ERP/financials, supply chain, sales management, and wholesale/distribution management
- NetSuite OneWorld multilingual capabilities and built-in support for China-specific currency and value-added taxation (VAT)
- Employ people and 300 China distributors with self-service access and enables real-time management of inventory stock levels for subsidiary operations.

Results
- Two-tier ERP deployment provides U.S. corporate parent with real-time web-based visibility into subsidiary performance, with monthly roll-up into Lawson ERP application at HQ
- Flexible business management platform helps support rapid growth in expanding China market for vitamins and nutritional supplements with required local controls
- Avoids cost of at least three full-time employees at the subsidiary level for accounting and IT that would be required to run a competing system
- Streamlined inventory management, warehousing and distribution for millions of dollars of imported products in over 200 SKUs.

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