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CASE STUDY: SHAW INDUSTRIES AND NETSUITE

How Shaw Used NetSuite to Create Two-Tier Enterprise Resource Planning (ERP)

The Cloud and Two-Tier ERP Drove International Expansion by a Leading Manufacturer

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- Improved agility for international expansion with an ERP platform
- Avoided millions in capital expense to build out a regional data center
- Reduced potential operating expenses in staffing for an Asia-Pacific team

Shaw Industries Group, Inc.

- **Headquarters:** Dalton, Georgia
- **2012 Revenue:** $5 billion
- **No. Employees:** 25,000+
- **Industry:** Carpeting, flooring and building materials manufacturer
- **Other:** Founded in 1946, privately held by Berkshire Hathaway

Business Themes

Technology Optimization

Consumerization of IT

THE COMPANY

Shaw Industries Group, Inc. is the world's largest carpet manufacturer. Based in Dalton, Georgia, the manufacturer started in 1946 as Star Dye Company, a small business that dyed tufted scatter rugs. As the industry's low-cost provider and leader, the once public company attracted the attention of renowned investor Warren E. Buffett for having a dominant market share, strong management team, and undervalued stock price in the market. Subsequently, Shaw was acquired by Berkshire Hathaway in 2001 and the company was taken private.

While often seen as a conservative company in culture, the flooring giant was quite innovative. Shaw was early in creating its own trucking subsidiary, expanding direct sales to retailers, building regional distribution centers, and implementing green initiatives to reduce consumption of resources and recycle waste. Through mergers, acquisitions and organic growth, the company achieved $5 billion in revenue in 2012 and continues to innovate in products and market expansion.

THE CHALLENGES

Chief Information Officer (CIO) Roddy McKaig was challenged with bringing Shaw's manufacturing, up to then done in the United States, into China and to provide the technology and systems required to support future internationalization. Shaw needed a solution for enterprise resource planning (ERP) and manufacturing. McKaig had to decide whether to take his existing system to China or look to a software vendor who could meet Shaw's ERP requirements.

When Shaw first began its ERP journey over 30 years ago, every packaged system failed to meet its primary need – dealing with an inventory of rolls for soft surface products. "Most existing ERP systems were a mile wide and an inch deep," noted McKaig. Consequently, Shaw's IT team custom-developed its own internal system to deal with soft surface products. Fifteen years ago, the team supported the company's expansion by customizing the system to support hard surface products such as laminate, tile, engineered floors, resilient, and stone. Shaw had successfully built a customized application development shop.

At the end of 2011, the company made it a strategic priority to invest in international expansion. The decision to build a manufacturing plant in Nantong, China would serve as the pillar of Shaw's Asia-Pacific expansion and future international strategy.

Key requirements included:

- Operating one common ERP system for international expansion
- Supporting multiple currencies and languages.
- Dealing with time zone differences
- Supporting international sales
- Integrating back with headquarters operations

McKaig's team underwent an extensive eight-month ERP evaluation process. The team evaluated the on-premises systems, which included the original custom ERP software and PeopleSoft HCM and Financials. Given the conservative culture, the team was quite skeptical about whether the cloud could be used for a core ERP system.

However, at one of its Australian subsidiaries (which came via acquisition), the system in use was a cloud-based ERP system with a data center in California. Skeptical about the response times and the ability to support functionality requirements and meet internationalization needs, McKaig asked the Australian team if it would like to stay on the cloud ERP system in Australia. To his surprise, the subsidiary was quite positive and said, "of course". This led to the initial consideration of NetSuite for use outside North America.

THE SOLUTION

Based on the original requirements, McKaig knew that his options would be limited. He had less than a year to go live. There was no feasible option to convert an existing system. He could not build a system in time for the Nantong plant's go-live.

At the onset, the team was quite skeptical that cloud software could meet Shaw's requirements. Many in the selection process believed that cloud software would not be able to address Shaw's complex and unique business processes and support internationalization. The team had to go live in less than a year on a brand new system. Still skeptical that this could be accomplished, the Shaw team set out to California for an onsite visit to NetSuite's headquarters and data center.

After an intensive six months of vendor request for proposal (RFP) evaluations and exhausting product demonstrations, McKaig and team chose NetSuite for its non-North American business. The visit sealed the deal and fully convinced the team that the NetSuite solution would co-exist in a two-tier ERP approach with Shaw's existing legacy ERP systems and support Shaw's requirements for internationalization.

Five years later, the system is running all of Shaw's Asian business, including India and Pakistan, as well as Australia. The two-tier ERP model prevented mass upheaval from changing the entire system while enabling the expansion into new markets with a newer and more modern cloud-based system.

In addition to a full ERP suite of software, NetSuite connects to other key software packages both on-premises and in the cloud. Using a Tibco ESB, Shaw connects NetSuite to a cloud-based customer relationship marketing (CRM) solution, on-premises human resources (HR)

"Most existing ERP systems were a mile wide and an inch deep."

- Roddy McKaig, CIO of Shaw Industries Group

The Technologies

- NetSuite OneWorld
- NetSuite Manufacturing Edition
- NetSuite Advanced Financials
- NetSuite SuiteAnalytics Connect
- NetSuite Electronic Payments
- NetSuite Fixed Asset Management
- NetSuite Incentive Compensation
- NetSuite Advanced Projects
- NetSuite SuiteCloud Platform
- Tibco ESB

system, plant system, banking link, internal product specification software, corporate data warehouse and a regulatory reporting system. The integration layer is key to orchestrating processes and data among the different systems. In fact, Shaw pulls its order and invoice information every two hours for use in its CRM system. The company also has 35 percent to 40 percent of orders coming from e-commerce and B2B Electronic Data Interchange (EDI). Additionally, with most of the raw materials produced in the U.S. and then further processed in China, NetSuite also handles the end-to-end procurement process.

SHIFT TO THE CLOUD IS INEVITABLE AND BENEFICIAL

Cloud adoption by percentage of technology budget has increased since 2009 (see Figure 1). Nine key benefits of the cloud often drive the shift, not just for two-tier ERP, but also for migration to full cloud models.

1. **Rapid IT implementation improves the quality of deployment.** With the advent of cloud software, the duration of the technical implementation phase has moved from months to weeks. Customers can demonstrate a product, move to "sandbox", and train in days. Instead of spending time and resources in setting up infrastructure, organizations have the option to redirect their budgets and resources to improve business processes and invest in change management. Teams can focus on configuration instead of struggling with integration and deployment quagmires. True multi-tenant SaaS solutions do not require individual installations; instead, they leverage the SaaS environment for quicker and easier configuration. Other flavors of cloud may require a bit more customization.

2. **More frequent cycles of innovation result in competitive advantage.** Cloud vendors update their solutions typically between two to four times a year. With current agile development methodologies, some vendors iterate in months. Customers gain access to the latest features, bug fixes and regulatory updates at a quicker pace. In many cases, organizations turn to the cloud to access

innovation and capabilities not provided by incumbent on-premises vendors.

3. **Minimal upgrade hassles free up time for innovation.** While on-premises deployments may provide frequent upgrades, the process of consumption and adoption can be cumbersome. Cloud users no longer have to worry about a flurry of bug patches, fixes, and endless testing cycles required to validate changes. Business processes heavily affected by regulatory changes, such as financial closing and hire to retire, benefit the most from easier consumption of updates. However, cloud users do have to take responsibility for consuming updates as not all vendors require you to take all the upgrades and bug fixes.

4. **Subscription pricing frees up capital expenses.** Cloud solutions have adopted subscription or utility pricing to spread out

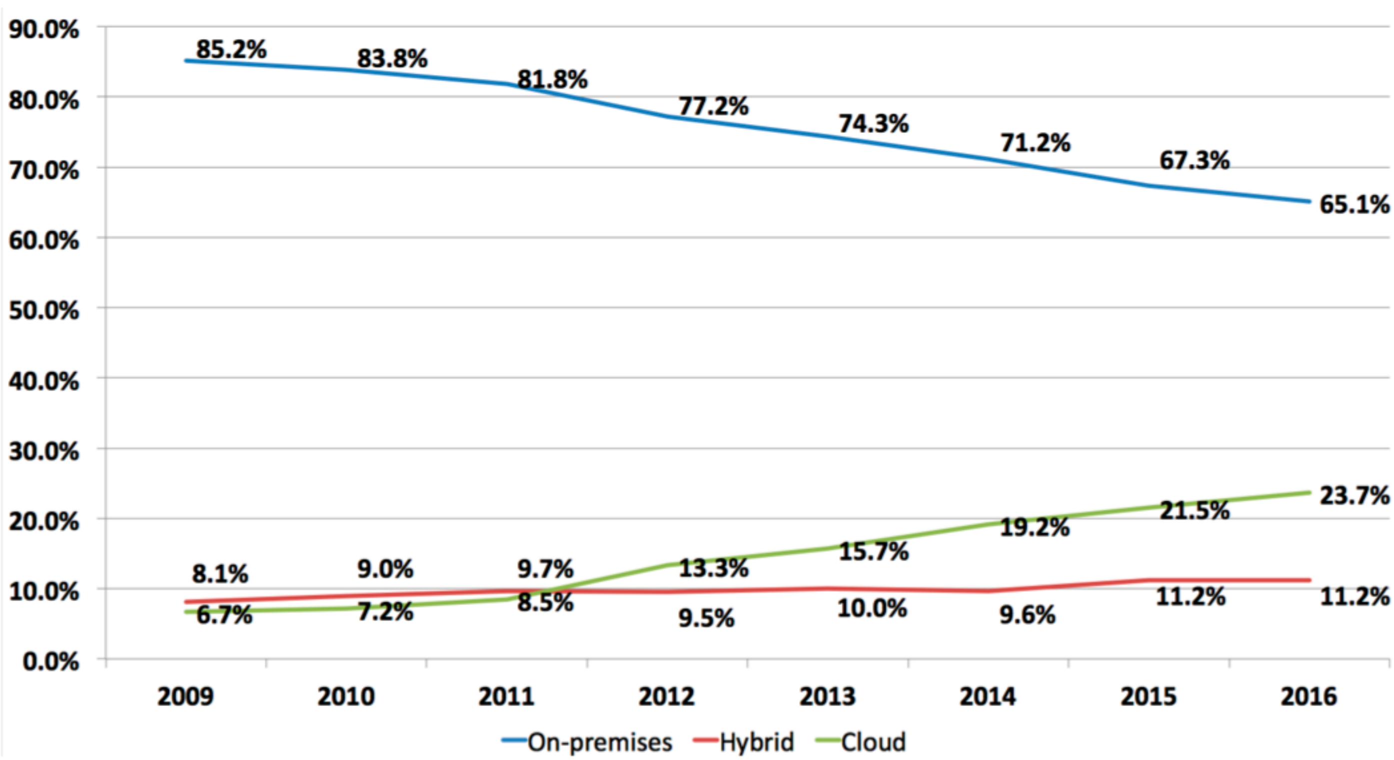

Figure 1. Cloud Adoption by Percentage of Technology Budget Has Grown Since 2009
Source: Constellation Research, Inc., Annual Cloud Buyers Survey 2009 - 2016

payments over time. The shift from capital expenditure to operational expenditure frees up funds for other projects. Capital is not tied up in expensive investments that risk failure. Business users can swipe and buy without going through complicated procurement processes. During recessionary times, subscribers only buy what they consume, stretching their investment. Many contract terms have also moved from yearly to monthly increments.

5. **Anytime scalability and dynamic capacity ensure flexibility and a level playing field for smaller organizations.** Scalability that comes with pay-as-you go subscription pricing enables customers to streamline cost per additional user. Clients can flex up or flex down on usage without incurring spikes in variable costs for hardware, staffing and licensing. Users can gain unimaginable computing scale, in effect democratizing computing and enabling smaller organizations to better compete with larger organizations that historically have had access to many more resources to develop innovations.

6. **Lower cost of support reduces headcount.** SaaS customers reduce the need for on-site support staff, training and larger IT teams. Organizations benefit with a shift from human resource costs to technology costs. Headcount is freed up to focus on business value.

7. **Users benefit from cloud vendors' infrastructure investments at scale.** Cloud vendors can keep improving their infrastructure for the benefit of their customers while users of on-premises deployments must rely on investments by their own IT departments. From security to performance and infrastructure optimization, cloud vendors can apply large-scale investments in ways that on-premises IT departments could not.

8. **Richer user experience leads to greater adoption and immediate productivity.** Cloud vendors have focused on user experience since inception. Newer technologies enable more engaging and easy-to-use interfaces that support not only mobile, but emerging touch interfaces.

Solutions often start with a role-based design point that requires minimal training. These solutions provide a better, more intuitive context for the user's interactions, decisions and actions.

9. **Always-on access enables real-time usage and collaboration.** Office workers gain access to cloud tools anytime and anywhere they go. These consumer-friendly tools often have rich mobile experiences – often far ahead of on-premises applications. Always-on access enables new collaboration and social networking opportunities that on-premises deployments often fail to deliver due to their siloed architecture.

THE IMPACT

Using the cloud and the two-tier ERP approach, Shaw experienced the biggest impact on its IT team and its business in three major areas:

1. **Avoided millions in capital expenses.** A big advantage of the cloud approach is being able to save money by not having to invest in a full regional data center build-out. "I fully expected to pay for a data center and equipment. We prepared for this in the capital budget. We knew we would have to add a data center for each location of build-out, especially in Europe. We braced for the cost of adding people, hardware, and software in every data center," noted McKaig. However, those data center build-outs never had to occur.

2. **Reduced operating expenses in staffing.** Hiring the right skill sets for a data center can quickly drive up costs in any international expansion. "The biggest thing was not having to put people everywhere you go. Taking care of a location requires the usage of a lot of services and a team to manage this. Then, you have to find folks with the right skills. This is far from easy", commented McKaig. The cloud provided long-term operating cost savings and eliminated the management issues of hiring five to 10 people in each location in Asia. Constellation estimates cost savings around $500,000 to $1 million per year per location based on fully-burdened staffing rates.

3. **Improved agility with an ERP platform.** The shift to a cloud-based ERP and two-tier approach not only provided a platform for international expansion, but also helped expand capacity resulting from growth in the North American market. As a result, Shaw achieved business agility and flexibility through its ERP system.

THE TAKEAWAYS

This case study highlights four major lessons learned:

1. **KISS rules apply.** Often known as "keep it simple, stupid!", the goal is to achieve simplicity in deployment. Shaw had a reputation for customizing every system it had purchased. However, too much customization often leads to compounding complexity. McKaig pointed out, "Shaw is notorious for customizing everything we have. (But) we got our team to agree not to customize. If a NetSuite configuration couldn't handle it, we'd think long and hard. The tradeoff between standardization and customization was worth it!"

2. **If you "customize," do it in the platform.** Shaw learned quickly what was needed versus what was wanted. The flooring maker was very selective on what truly needed to be customized. By using the NetSuite SuiteCloud Platform, customizations moved forward along with

"I fully expected to pay for a data center and equipment....(And) the biggest thing was not having to put people everywhere you go."

– Roddy McKaig, CIO of Shaw Industries Group

"We have never had to manually re-implement these customizations of version upgrades"

–Roddy McKaig, CIO of Shaw Industries Group each upgrade. There was no added expense for customizations with each new version. “This was a big factor in our selection. NetSuite assured that we could preserve customizations and I would never have to move these and test and re-implement,” stated McKaig.

3. **Involve the vendor’s pro-services team.** Shaw engaged NetSuite’s pro-services team to deliver the customizations working side by side with the internal IT team. The result - customizations came across clean. In some cases, customizations were considered for inclusion into future core releases. “We have never had to manually reimplement these customizations as part of version upgrades,” McKaig noted.

4. **Seek the right level of executive sponsorship.** McKaig and his Group Director of Manufacturing were invited to be part of NetSuite’s Manufacturing Customer Advisory Board. NetSuite considered customizations built by Shaw on the SuiteCloud Platform for inclusion into the core release and a number of customizations were added to the core release.

THE RECOMMENDATIONS

Constellation suggests that NetSuite be considered on short lists for enterprise cloud ERP in the following five scenarios:

1. **Two-tier ERP.** Two-tier ERP describes the ability for a new cloud-based or on-premises ERP system to co-exist with existing systems in a headquarters and subsidiary operation where the headquarters does not intend to move from existing legacy systems.

2. **Subsidiary expansion.** Where subsidiaries have different business models or have unmet business requirements in an organization that has multiple ERP systems, the expansion strategy allows a federated IT organization to accommodate varying requirements.

3. **Single instance cloud modernization.** When organizations have multiple instances of ERP, clients often begin with one entity and

then progress over time by consolidating instances into the cloud.

4. **Preparation for IPO.** Startups seeking to launch an initial public offering often move to a robust ERP platform in order to meet public reporting requirements and to support expansion.

5. **Post-merger integration optimization.** Bankers often suggest post-merger integration savings by consolidating systems onto a newer platform.

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A background in emerging business and technology trends, enterprise apps strategy, technology selection, and contract negotiations enables Ray to provide clients and readers with the bridge between business leadership and technology adoption. Ray has been recognized by the prestigious Institute of Industry Analyst Relations (IIAR) as the Analyst of the Year, and in 2009, he was recognized as one of the most important analysts for Enterprise, SMB, and Software. In 2010, Ray was recorded as part of the ARInsights Power 100 List of Industry Analysts and named one of the top Influential Leaders in the CRM Magazine 2010 Market Awards.

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- Founders of Constellation Executive Network, a membership organization for digital leaders seeking to learn from market leaders and fast followers.

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