



**60%**  
improved overall  
operating efficiency

**1**  
source of truth  
provides transparent  
view across business

**50%**  
faster access to  
key business data

## Vectus Industries

Industry and Location  
Manufacturing | India

Product(s) and Service(s)  
SUSE Linux Enterprise Server for SAP Applications

Vectus Industries boosts revenue and profitability thanks to high availability provided by SUSE

# Success Story

## At-a-Glance

To support its implementation of SAP S/4 HANA, Vectus Industries looked for a high-performance, exceptionally reliable operating system. Impressed by the customer references, total cost of ownership and support available, the company selected SUSE Linux Enterprise Server (SLES) for SAP Applications over other distributions of Linux. With the new solution in place, Vectus Industries enjoys near “five nines” availability, 50% access to key business data, and streamlined operating procedures to boost revenues and profitability.

## Introducing Vectus Industries

### Overview

Headquartered in Noida, Uttar Pradesh, Vectus Industries is India’s fastest-growing manufacturer of pipes and water-storage solutions. The company produces plastic water tanks, piping systems, pressure piping, blow-molded tanks and equipment for agricultural and household purposes. In particular, the company pioneers new blow-molding manufacturing techniques.

In the last nine years, Vectus Industries has grown at an average annual rate of 35%, and in the last financial year achieved an overall sales turnover equivalent to USD 90 million. The company operates 13 manufacturing sites in India, and a further 13 depot and office locations across the nation.



### Challenge

As one of India’s leading producers of water tanks and piping, Vectus Industries serves a thriving market in a land where smart water management has a significant impact on living standards. During the long dry periods India experiences each year, the availability of stored water becomes vitally important both for human consumption and agriculture.

Despite pioneering new production techniques and achieving impressive annual growth figures, Vectus Industries was prevented from optimizing operational performance by poorly functioning legacy IT systems.

Manish Sinha, head of IT at Vectus Industries, begins: “We previously worked with a limited IT infrastructure that could not support our growing business. Confidence and trust in IT systems was very low across the business—largely because staff could tell that our lack of a robust ERP system hampered our operational efficiency. What’s more, coding errors in our applications meant we had to restart up to ten times on some days, causing around 24 hours of downtime every month.”

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**Manish Sinha**  
Head of IT  
Vectus Industries

Without an integrated enterprise-level core business system in place across the company, Vectus Industries had to manually input data into disparate systems to record customer orders, process billing and keep track of product dispatches. The process was extremely time-consuming, and it often took staff up to 48 hours to enter data on new production during downtime

“A heavy reliance on manual processes also broadened the scope for error,” continues Manish Sinha. “Sometimes, employees accidentally made multiple entries for the same order, resulting in customers receiving products twice. Similarly, if we made mistakes such as documenting the original sale but not making a corresponding entry in the billing system, customers received their goods but were never billed.

Even worse, if an order was not entered into our legacy systems correctly, customers would call us and demand updates on where their goods were, and we couldn’t give them a satisfactory answer. All in all, our lack of accurate reporting was impacting our service and preventing us from maximizing revenues.”

Equally, without a clear view of historical sales, Vectus Industries was unable to make informed decisions about its inventory and production. For example, because managers could not accurately see which products were selling well, they sometimes missed opportunities to manufacture them in greater volumes and launch snap promotions—causing the company to forgo revenues and customers to walk away empty handed. Similarly, if products were not selling as well as hoped, unsold stock piled up in its depots—a waste of raw materials, labor hours and warehouse space.

End of year financial reconciliations also took several months to complete, as drawing together data from all of Vectus Industries’ plants and office locations in order to match billing and payments was an arduous process with the legacy system.

To address these challenges, Vectus Industries began planning ‘Project Recharge’—a comprehensive reboot of its IT landscape. The company also intends to position itself for an initial public offering (IPO) in the fu-

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ture—so finding an enterprise-ready, high-performance platform became vital.

To increase business transparency and take robust control over financial reporting and resources, Vectus Industries chose to deploy SAP S/4 HANA as a core ERP system on Hewlett-Packard hardware. As a crucial element in the new solution, the company needed to find the right operating system to ensure high availability and performance for its mission-critical SAP systems.

### **Solution**

Vectus Industries launched a detailed RFP and assessed the relative performance, level of support, and total cost of ownership of various operating systems, including other Linux vendors. The outcome was a decision in favor of SLES for SAP Applications to support the new S/4 HANA system.

Manish Sinha continues: “During the assessment stages, we knew we needed a best-of-breed solution. We looked at the Linux distributions from SUSE and the other vendors and concluded that SUSE offers superior performance and stability for SAP S/4

HANA. We were especially impressed with the customer references and use cases presented by SUSE, which illustrated the reliability of the operating system.

“From our background research, we knew that S/4 HANA was specifically tested on the SUSE operating system. We felt confident this would minimize the need for frequent upgrades and downtime, and contribute to a much lower total cost of ownership compared with the other Linux vendors. We came to the conclusion that SUSE also offers better support in India than other Linux providers, which gave us peace of mind that if we had problems, there would be help at hand. We understood that S/4 HANA is a cutting-edge solution used by only one other company in India, so felt that having the best support package available was especially important. This, along with the fact that SUSE is Hewlett-Packard’s preferred Linux partner for SAP applications, gave us confidence we had found the right product.”

Vectus Industries worked with a local partner to implement the new IT infrastructure, with VMware software virtualizing SLES for

SAP Applications to form 13 separate instances across its network. Built-in load balancing and clustering features ensure exceptionally high availability for seven key SAP modules: Materials Management, Sales and Distribution, Production Planning, Procurement, Quality Management, Finance and Controlling, and Human Capital Management. The company is now considering extending the roll-out of SLES for SAP Applications to a secondary site for disaster recovery (DR).

Vectus Industries uses the Page Cache Management capability of SUSE Linux Enterprise Server (SLES) to ensure high performance when working on large SAP HANA workloads. Normally, the Linux kernel frees up rarely accessed application memory pages and uses them as a cache for files. As many SAP applications require rapid access to data, even if they are accessed infrequently, the kernel-tune option steps in, limits the level of cached memory and prioritizes application memory, to keep response times as fast as possible for users.

Manish Sinha notes that his staff quickly became proficient at using the new platform: “Our infrastructure team had no prior experience working with SUSE Linux Enterprise Server, but found it easy to master after a little instruction from the implementation partner. We particularly value the YaST configuration tool, which makes it quick and simple to install new virtual servers and offers a user-friendly graphical interface.”

In the event of any difficulties with the operating system, Vectus Industries can simply raise a support ticket as part of its contract with Hewlett Packard—though since the roll-out, not a single ticket has been raised, as Manish Sinha explains: “One of the best

things about working with the SUSE technology is that we experience no issues with patch management. When we used non-Linux operating systems, we had to call out for repairs once or twice a month.”

## Results

Vectus Industries achieved a rapid roll-out of its new IT landscape, going live in 24 locations across India inside four and a half months. This is only the second implementation of SAP S/4 HANA in India, and the first within the Indian plastics industry. As an operating system optimized out-of-the-box for SAP, SLES for SAP Applications was a decisive element in the speed of the roll-out and is now helping Vectus Industries to optimize business efficiency.

Manish Sinha states: “When using our legacy system, we faced major issues with server downtime that caused staff to put in extra shifts to enter data, costing up to 12 million Rupees (USD 180,000) in overtime payments. Since implementing the new architecture, we have experienced no downtime and have not once had to restart the server during working hours—we are achieving close to ‘five nines’ availability.

“With the server online constantly, staff no longer need to wait around inactive before they can perform their jobs and enter data, and our corporate team do not have to take the time to process overtime payments. In all, we believe that we have increased total operating efficiency by 60% across the company.

“The SUSE operating system is crucial to securing these savings. Even when our hardware runs well, it needs the operating system to ensure smooth communication

with the SAP software. SUSE Linux Enterprise Server for SAP Applications gives us the firm, robust foundation we need and fits hand-in-glove with our SAP applications.”

With the new ERP solution in place, Vectus Industries has reduced its reliance on manual data entry and now generates instant customer invoices and accurate sales records. Customers receive SMS messages to inform them that their orders have been processed and dispatched. Meanwhile, the finance team at Vectus Industries enjoys real-time access to data to monitor business performance, enabling smarter budgeting and planning.

Manish Sinha continues: “We now have 50% faster access to financial data, thanks to a single source of truth documenting performance across the company. This means we can check inventories to spot if stock is piling up or particular products are selling especially well, and launch innovative promotional schemes to maximize profits.

“When the time comes to perform our end-of-year reconciliation, the report is ready at the click of a button, rather than taking months to complete. As a result, we are much more agile.”

This rapid one click accounting and cross-business transparency helps Vectus Industries easily meet compliance regulations, and complete audits and financial reporting speedily.

With the company moving towards an IPO in 2020, the implementation of SAP HANA and SLES brings this milestone significantly closer. Manish Sinha elaborates: “With improved asset monitoring and optimal use of

resources, we can build the confidence of current stakeholders and begin to attract new investors to take the business to the next level of growth.”

The company now compares accurate sales data with depot inventories, gaining a clear picture of procurement needs and enabling it to cut out costly waste through the build-up of unneeded stock. In particular, Vectus Industries discovered that when some of its manufacturing plants created a new mold, they would carry out a 24 hour production run—despite this leading to stock pile-ups.

“We found that we had enough stock of certain products to last us over two years. We instantly put production of those items on hold and stopped the practice of 24-hour production runs. We now run just long enough to form the number of tanks and pipe products that we know we can sell. This has cut our labor and power costs, and we no longer use as much raw material.”

By cutting the amount of unneeded stock in its supply system, Vectus Industries was able to move to smaller storage depots, thereby achieving further cost savings. As fewer raw materials are required for its production runs, the company has also reduced the total procurement cycle time from over three weeks to just 15 days.

Vectus Industries also struggled in the past to keep tabs on the level of credit extended to customers. In some cases, only a few members of the accounting staff would know the quantity of goods a particular buyer had recently ordered and made payments for. If they were out of the office or engaged on a different job on the day that another order came in from that buyer,

the company in some cases would send out the materials irrespective of whether payments were up to date. With the new ERP system, the extent of outstanding invoices is clear for every customer, and buyers can be blocked from making new purchases until all past invoices are paid in full.

The new IT environment also enables exciting new streams of business for Vectus Industries: “We often notice that our customers buy water tanks from us, but then fail to take measures to keep the tank clean and hygienic. We plan to develop a mobile app that integrates with our SAP system, through which customers can find local plumbers and arrange to have their tank cleaned to keep the water inside hygienic and safe for consumption.”

Manish Sinha concludes: “Thanks to our revamped ERP solution supported by SUSE Linux Enterprise Server, we have built a foundation to benefit the entire organization and help us drive up profit margins, reach even more customers, and grow even faster.”

### Benefits

- Improved overall operating efficiency by 60%
- Lifted availability to almost “five nines” from 24 hours of downtime a month previously
- Reduced manual data entry and enabled instant billing and invoices
- Single source of truth provides transparent view across business
- 50% faster access to key business data

### Find out how SUSE can help you become an innovation hero!

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