

How **Jabil** Remediated 5 Million Lines of Custom Code in 5 Weeks and Reduced Dual Maintenance Costs by 20% with smartShift

29,000
issues fixed with no human
intervention

40%
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decommissioned



"If you're wondering whether to use smartShift to accelerate and automate your SAP modernization project, here's my advice: You can't afford not to!"

Harish Manohar
Manager, SAP CoE, Jabil



Jabil is a global manufacturing and supply chain solutions provider. It serves leading brands across multiple industries including healthcare, packaging, consumer devices, automotive, retail technology, and cloud equipment.

Highlights

Challenges

- Converting existing SAP system used by 40k employees to S/4HANA
- Needing to analyze and transform 5 Million lines of custom code
- Maintaining existing production system and new project system in tandem
- Mitigating business and technical risk, including limiting system downtime and preventing cost overruns

Solution

Jabil used three smartShift Intelligent Automation® solutions to:

- Analyze the current state of its systems and quickly understand every line of code
- Remediate custom code at hyper-speed—and ensure its compatibility with S/4HANA
- Automate dual maintenance to eliminate the risk of impacting business velocity
- Deliver targeted testing and ensure issue-free cutover

Results

- All custom code remediated in 5 weeks
- 29k issues effortlessly fixed
- Dual maintenance costs reduced by 20%
- 40% of custom code safely decommissioned
- Developers freed up to focus on strategic priorities

Challenges

Converting to SAP S/4HANA without disrupting business as usual

When manufacturing giant Jabil decided to convert their SAP systems to S/4HANA, they faced a daunting challenge.

With 250,000+ employees stretching across 100 sites in 30 countries, updating such critical central systems brought significant business and technical risk.



“We were skeptical about managing this huge change program, because Jabil had never executed a project of this scale before,” says Harish Manohar, Manager of Jabil’s SAP Center of Excellence.

“Our SAP modernization had the potential to impact so many different sites and projects across the globe. If there was a mishap, it could bring significant disruption to Jabil’s business.”

Complex technical landscape

One of the principal challenges facing Jabil was the complexity of its existing landscape, which was heavily burdened with layer upon layer of customizations, including a significant amount of custom code.

To successfully transition to S/4HANA, all that code would need to be compatible and optimized.

What that meant in reality was a huge undertaking: they’d need to analyze and potentially modernize five million lines of custom code!

Manually managing parallel environments

Another tricky issue was how to keep the S/4HANA project's parallel development environment in sync with their production system while the project progressed.

To maintain the velocity of business as usual, developers needed to be making changes in the existing production environment, while the project environment was also in a state of flux.

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“One of the big challenges of digital transformation is having to keep the lights on in business as usual, but at the same time drive forward your migration to SAP's newer technology,” explains Harish.

The big challenge here was dual maintenance.

Every production change would need to be analyzed and potentially migrated to the new system, which added a lot of manual work and risk.

If errors were made, or migrations missed, it could ripple into bigger issues affecting testing and even project timelines.

Financial burden of system downtime

System downtime was probably Harish's biggest concern. *Every hour lost to IT downtime could have a significant financial impact on Jabil.*

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“If anything went wrong and downtime went beyond carefully planned outages, the financial burden would be significant,” says Harish.

With a challenging timeline of a year and a half—and significant risk to manage—Harish was determined to find third-party experts who could support Jabil to:

- Reduce risk
- Accelerate time-to-completion and value attainment
- Accurately automate code remediation
- Eliminate the manual work from dual maintenance
- Optimize and secure their system as the transformation progressed

That's when smartShift came in and changed everything...

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Solution

smartShift’s Intelligent Automation enables business continuity and accelerates time to value

Harish first encountered smartShift—a leader in automating and simplifying SAP transformations—at a global technology event.

Usually, recruiting a third party for business-critical work brings significant risk, but Jabil had immediate confidence in smartShift’s leadership and expertise.

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“I was impressed with smartShift’s automation solutions as well as their extensive experience,” says Harish.

“The company had already implemented hundreds of SAP modernizations across different industry segments and sizes of companies. They understand the process inside-out, the rigor involved, and the issues that come with a project of this scale. We felt confident smartShift was right for our project.”

What stood out most for Jabil was the high-speed automation capabilities that smartShift brings to the table.

With smartShift's automation, they could dramatically accelerate time-to-value. While remediating even 50% of their code manually would take a large team of developers 5 months or more, with smartShift they could do it all in just 5 weeks!

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“If we had to use a developer to manually handle each and every change on our conversion project, it would have taken us forever,” says Harish. “With smartShift’s automation capabilities, we were confident of executing the project in a fraction of the time.”

To get its SAP transformation project on track, Jabil utilized three solutions powered by smartShift Intelligent Automation:

- **Custom Code Analysis**
- **Custom Code Transformation**
- **Automated Dual Maintenance**

Data-driven project plans

First, smartShift ran a comprehensive **Custom Code Analysis** to analyze the current state of Jabil's systems.

smartShift Intelligent Automation automatically evaluated all of Jabil's custom code, scanning every program to see which lines required modernization. Equally as impressive, it identified all of Jabil's obsolete code which could be safely decommissioned.

The benefits of automated analysis were massive, providing a clear, data-driven roadmap for the remediation work required, with no surprises down the line. Jabil now had the assurance that they could remediate five million lines of code for S/4HANA compatibility in just 5 weeks, saving months of manual effort.

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“Without smartShift’s automated analysis, we’d have been shooting in the dark about the scope of the project and what to prioritize,” says Harish.

“Instead, we were able to put our programs into multiple buckets of complexity and prioritize remediation work from a business criticality perspective.”

Complex code remediation—without the effort

Next, smartShift utilized Intelligent Automation's **Custom Code Remediation** capabilities to automatically rewrite every line of code that required transformation. With no developer intervention—and no disruption to the business—all custom code was effortlessly optimized and made S/4HANA-compatible.

Harish was particularly impressed with the quality of the remediated code, which was more readable, stable, and simpler to maintain. Security vulnerabilities were also automatically corrected.

Dual maintenance made easy

Finally, Jabil utilized smartShift Intelligent Automation's **Automated Dual Maintenance** capabilities to automate custom code repository synchronization for the duration of the project.

Automated Dual Maintenance automatically syncs any changes made in the production landscape with the new S/4HANA project environment. Developers don't have to waste time running manual code comparisons and merges—and the business can keep running at full velocity.



“With such a lengthy project, there are always dependency issues, where a program we’re working on for S/4HANA also needs to be worked on for projects that are happening in the business right now,” says Harish.

“We do 6-7,000 SAP changes to production every year and we can’t afford to miss any of those changes in the other environment. To manually keep the two systems perfectly in sync would be impossible.”

Taking the risk out of going live

Because all of Jabil's code transformation was automated and traceable, testing was more targeted and cycles were completed faster. With more predictability, Jabil removed the stress and uncertainty of taking the new system live.

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“Utilizing smartShifts’s automation capability, we had the time to do three thorough load-verification cycles,” says Harish. “By rehearsing it over and over, it helped us deliver an issue-free cutover.”

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“smartShift understands the process of SAP modernization inside-out, the rigor involved, and the issues that come with a project of this scale.”

Results

20% reduction in Dual Maintenance costs and 5 Million lines of code modernized in just 5 weeks

Jabil reduced project risk and saved tremendous time and money throughout its S/4HANA conversion with smartShift Intelligent Automation.

The business value that Jabil realized includes:

- **Dual maintenance costs reduced by 20%:** smartShift's automation ensured that landscapes were automatically synchronized, without developers needing to be involved. With so much manual work avoided and costs driven down, Jabil has more money to invest back into its business.
- **All custom code remediated in 5 weeks, with 29k issues fixed:** that's a BIG deal, because Jabil had estimated it would have taken five months to manually complete just half of that work.
- **40% of custom code safely decommissioned:** 2,000+ obsolete custom objects were decommissioned with smartShift's automation analysis, meaning no more dollars are wasted maintaining superfluous code.
- **Accelerated project timeline:** Jabil realized the value of S/4HANA sooner, enabling them to drive business-wide efficiency, simplify their processes, and boost profit margins.
- **Maintained business continuity:** with smartShift's Automated Dual Maintenance, developers could continue making changes in Production with almost no development freezes while the new S/4HANA system was developed simultaneously.
- **Increased developer capacity:** with no manual work to do, developers focused on other strategic priorities that boosted the business' bottom line.
- **Higher quality, more secure code:** future maintenance will be faster, easier, and cheaper for Jabil.

Of all Jabil's wins, Harish particularly appreciates the value they realized from smartShift's dual maintenance management.

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“When the project began, I instructed my developers to add at least 30% extra time to every project, because I thought they'd need to sync up every development with the project landscape,” he says.

“Thanks to smartShift's Dual Maintenance automation, our developers didn't have to manually recode anything, so that 30% extra time was reduced to less than 5% for a few admin processes.

“That was a significant time difference, which added up to a more efficient and cost-effective project.”

Harish says it's a 'no-brainer' for other SAP decision-makers to reduce project risk, cost, and complexity with smartShift.

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“smartShift's automation capabilities dramatically reduce the cost of digital transformation, especially for companies the size of Jabil,” he says.

“If you're wondering whether to use smartShift to accelerate and automate your SAP modernization project. My advice is: you can't afford not to.”

Harish concludes:

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“I don't see any reason why you wouldn't go with smartShift. They're very flexible in terms of how they work with you, they have experts working globally so you're supported through all the different timezones, and their depth of expertise in this space is second to none.”

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Find out how smartShift can reduce the cost and risk of your SAP transformation

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