

Proof-of-concepts with Global Revenue Leaders in Pharmaceutical and Healthcare Industries Reveal an Immediate \$4M a Year Potential Average in Savings through NextGen Automation for New Multi-Cloud Era Business Critical SaaS Applications

Immediate Resources that Could Go to Better Patient Care and New Medical Breakthroughs, According to Industry Executives Facing the "Unavoidable" Cost of Regulatory Compliance.

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A Long-standing Challenge Savvy Minds Set Out to Solve

When RevSavvy began consulting in 2022, co-founders Stacy Varghese and Kristina Roach were transitioning into an entrepreneurial journey following nearly 40 years of combined industry leadership experience in Life Sciences and Technology – including AbbVie, Astellas Pharmaceuticals, Walgreens, Exact Sciences, Takeda Pharmaceuticals, Model N, and Gilead Sciences. The dynamic duo had earned their nickname of "Savvy Ladies" due to their deep knowledge of the planning, requirements, testing, and SDLC documentation needed to keep every software revision compliant with regulatory standards in the healthcare and pharmaceutical industries – a rare skill set in high demand across an industry eager to see the return on investment of previous SaaS implementations.

As more systems have begun to migrate to the cloud, meeting regulatory standards is increasingly challenged by siloed functionality requiring manual expertise and limited resources, which remain focused on backend maintenance and compliance for new deployments. Despite the potential for automation these challenges stem from system disparity, multiple vendors, and concerns about risk mitigation, accuracy, and testing across the ecosystem.



Despite the rapid advancements in intelligent automation and the growing demand for new research, clinical trials, and patient care innovations, achieving end-to-end compliance efficiency remains a costly and elusive goal for regulated industries like healthcare. This case study explores the underlying reasons behind these persistent challenges.

Siloed Systems and New Boundaries Across Multiple Clouds

Complex Integration Landscape:

Most operational software, including EDI, ERP, and networking technology, is housed adjacent to other critical SaaS components. With the move to the cloud, critical software can face potential disruption and security vulnerabilities due to vendor-driven updates and revisions in adjacent systems.

Fragmented Compliance:

Compliance efforts remain siloed by software and cloud environments, hindering the ability to fully automate end-to-end across multiple platforms. This fragmentation affects the seamless analysis, testing, and documentation needed for comprehensive compliance management.

Talent Expertise and Contextual Language Limitations

Complex Vendor Updates:

Software vendors release large 'batches' of data and documents, often in complex language only understood by expert talent with at least a decade of experience in the regulated industries. These updates, in multiple file formats such as PDF and images, complicate compliance management. At the same time, businesses maintain customized policies and standards in traditional document formats, making standard automation reliant on structured data impossible.

Limited Talent Pool:

Interpreting industry language and regulatory demands is just one challenge. The contextual relevance of updates and specific requirements for new system implementations further narrow the talent capable of managing compliance, mitigating risk, and ensuring secure implementations without disrupting existing critical software systems.

Scale of Relevancy and Impact Analysis

Overwhelming Vendor Documentation:

Due to delays in accepting updates for complex systems, vendors often release documentation in large batches, spanning hundreds of pages. Despite the volume, only a small fraction is relevant to the business, particularly regarding compliance or system impact. Despite hundreds of feature changes, only a few may affect customized systems, yet every document must be meticulously reviewed.

Resource Strain on Senior Talent:

Limited senior experts, the first tapped to manually review the documentation, must identify potential impacts to the business value chain. Yet, the speed, consistency, and accuracy of such a process leave business leaders faced with a constant resource strain, regardless of the scale of feature relevance of any software that may vary in cloud location.



Leadership and Stakeholder ROI Monitoring

Growing Demand for Innovation:

push for breakthroughs in patient The treatment and competition in the market has fueled interest in quantum computing, artificial intelligence, and biotech. As a result, cost-intensive areas like compliance have become key targets for automation to drive cost savings, efficiency, and resource reallocation. However, gaining leadership and stakeholder buy-in requires proving the value of these investments, especially as they continue to assess the ROI of previous technology initiatives still reliant on manual compliance processes

Proven Data-Driven Results Needed:

Despite the success of automation in backend operations, decision-makers are hesitant to invest in new technologies without concrete data. Compliance remains the top priority, and while automation offers potential, past solutions have lacked the necessary expertise and precision to manage risk and software maintenance effectively. To earn leadership and stakeholder trust, any new automation must demonstrate the ability to meet compliance demands with proven accuracy before full-scale adoption is possible.

Ultimately, the demand for automation capable of handling contextually complex, unstructured language data files, across multiple, customized clouds has necessitated the development of a completely new type of platform, a unified SaaS approach, with a proven ROI.

A Savvy New Solution for Regulatory Compliance

RevSavvy set out to develop an automated revisions and compliance platform using cutting-edge technologies like Large Language Models (LLM), generative AI (GenAI), and comprehensive AI training. After experiencing persistent project delays in their own previous roles and gathering feedback from two of the top ten global pharmaceutical companies, they identified the need for a solution that could effectively address the complexities of a customized multi-cloud future. This new platform aims to bridge the gaps in compliance and streamline operations for highly regulated industries.

Proof of Concept Construction

Both multi-billion-dollar companies partnered with RevSavvy to implement a proof-of-concept (PoC). The PoCs leveraged historical data, vendor-provided unstructured files, business-specific policy documentation, and regulatory compliance standards. Advanced artificial intelligence models trained directly by co-founders Stacy Varghese and Kristina Roach were integral to this development, ensuring the solution was tailored to the companies' unique needs and compliance requirements.

Back		
Fall 2022 to Spr	ing 2024 Upgrade Project	Options ~
Scope Details Plan Doc	uments Tests Data Scenarios	
Requirements Analysis	Edit revision	cluded Manually
Suggested list based on analysis of Rele	Name *	ly pulled into the release from the
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Examining the Potential of Compliance Automation for Business-Critical SaaS

The PoCs focused on evaluating a single end-to-end update and revision cycle for revenue management software, using it as a baseline to assess the potential impact and success of advanced AI in integrating compliance across similar operational systems in a multi-cloud environment. The first and critical software examined and tested for automated revision compliance was revenue management SaaS. The results demonstrated the significant efficiency improvements offered by RevSavvy's proprietary NextGen AI and LLM application process. This success laid the groundwork for the creation of **ARC** by **RevSavvy** - the first automated revisions and compliance platform designed for any software in any cloud.

Automation Efficiency:

Over the course of a 6-month proof of concept, RevSavvy was able to successfully automate ~75% of the revisions process, this included expediting release planning and execution, boundary system impacts and analysis, test requirement and scripts, and auto-generated compliance documentation.

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equirement	Area	Subarea	Name	Quality	Scripts	Boundary	Defects	Risk	Criticality	
D-RS-098	Validata	Validations	Ability to enter New Claim adjustment period value, to be used in the new validation which checks if a claim is submitted for the first time and if its fill date is before "New Claims Earliest" Date.	High	4 tests	0 boundaries	2 defects	High	High	Details
D-RS-017	Validata	Base Data	The system must have the ability to convert submitted JCODE into an NDC11 value using conversion or concatenation.	High	1 tests	0 boundaries	4 defects	High	High	Details
D-RS-082	Validata	Validations	The system must have the ability to identify if Product id is not on a specified contract	High	0 tests	0 boundaries	0 defects	High	High	Details
D-RS-020	Validata	Import Data	The system must have the ability to accommodate the value for a numeric column	High	5 tests	0 boundaries	3 defects	High	High	Details
0-RS-021	Validata	Import Data	The system must have the ability to convert a blank value to a standard value (e.g., Days Supply should default to 1 if the value is missing, Total # of Scripts should default to 1 if the value is missing)	High	2 tests	0 boundaries	1 defects	High	High	Details
D-RS-023	Validata	Import Data	The system must have the ability to handle Coverage Gap Data that comes in with overpunch fields that need to be converted. E.g: ~, #	High	3 tests	0 boundaries	2 defects	High	High	Details
D-RS-093	Validata	Validations	The system shall scrub out duplicates within a customer across transactions	High	5 tests	0 boundaries	2 defects	High	High	Details
D-RS-008	Validata	Base Data	The system must have the ability to delete an un-used file format, not used in any submission.	High	3 tests	0 boundaries	1 defects	High	High	Details
D-RS-037	Validata	Import Data	The system must have the ability to allow users to combine multiple individual PP/PN files to a single PP or PN file.	High	2 tests	0 boundaries	3 defects	High	High	Details
0-RS-014	Validata	Base Data	The system must have the ability to apply one or more data conversion and or concatenate conditions. IF conditions should be able to check for any value or blanks.	High	1 tests	0 boundaries	3 defects	High	High	Details
)-RS-065	Validata	Validations	The system must have the ability to allow the user to run the second set of validations (Chain Validations) independently.	High	3 tests	0 boundaries	1 defects	High	High	Details
-RS-089	Validata	Validations	The system shall be able to scrub out prescriptions based on the Rx Number	High	3 tests	0 boundaries	5 defects	High	High	Details

Expert Talent Redirection Potential:

Overall top talent testing the system reported the ability to quickly meet compliance needs and an added level of expert guidance that drastically curbed the typical hours demanded that goes into a revision cycle. Projections for time saved by experts equated to more than 900 hours over the course of the 6-month PoC.

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640 suggested	10 fixes available \Rightarrow 5 included Review List Add defect	Review List Add requirement
Summary Resources affected		

Risk Mitigation Improvement:

Overall accuracy in impact assessment also increased. The AI used to analyze release notes and cross-check context by regulatory requirements and business policy standards for compliance improved risk mitigation accuracy by 33 percent for revisions made to the revenue management software cycle.

Millions in Cost Savings for Reinvestment:

Based on the projected hours saved, the cost savings that RevSavvy's AI would drive was found to account for approximately \$500,000. This projected amount accounts for just one end-to-end revision, for just one critical operational software in the value chain. An average Life Sciences company undergoes an average of one revision cycle a year per software deployed, and houses approximately 5-7 business critical boundary operational software systems requiring such regular maintenance and compliance measures, equating to a potential of ~\$4 million a year in immediate regular maintenance savings that can be redirected to new industry research, development, and go-to-market breakthroughs for businesses and patients, with the adoption of RevSavvy.

The New Path to Automated Revisions and Compliance - ARC by RevSavvy

The PoC success provided keen insights into the automation needs and complexities that are poised to challenge regulated industries as they pursue cloud ROI through customized environments and seek out solutions that can complement systems already in place. **ARC by RevSavvy** has been built to provide a software- and cloud-agnostic path forward for automated compliance in any customized environment. ARC's AI has proven the ability to expertly identify the nuanced context of requirements, specific to any business's self-created policies and those of the healthcare and pharmaceutical industries, to fully manage and document successful revisions across business value chain software systems.

Full Features available with ARC:

IRequirements Library: compatible with customers' formats and PDF files

IContext Configuration Library: industry- and business-language-specific context tagging provides expertise at an automated level

ISoftware Automated Artifacts Library: compatible with any software, including Model N

IBoundary System Library and Labels: Identifies adjacent ecosystems and impact-risk to operational applications – including Master Data Management (MDM) i.e. Informatica, SAP Master Data Management, Tibco, Enterprise Resource Planning (ERP) i.e., SAP S4 HANA cloud, Oracle EBS, Microsoft Great Plains etc., Electronic Data Integration (EDI) i.e., OpenText, Inmar etc.; Data Warehouses and Infrastructure i.e. AWS, Snowflake, Teradata etc.; Business Intelligence Platforms i.e.; QlikView, Salesforce (Tableau), Microsoft Power BI etc **IRelease Notes Library and Storage:** compatible with software providers PDF files

IDefect Library: for historic analysis of areas of highest risk and trends over time

ITesting Functionality and Documentation Library: for historical compliance and regulatory documentation tracking

ISDLC Template Library: customized to customers' SDLC-specific needs

IUser List, Roles and Access: enhances trust, security, and ensures an added layer of guidance and risk mitigation

Release Impact Assessment: LLM-based risk assessment identification through analysis of business policies/requirements, industry regulation standards, and test scripts

IEnhanced Progress Dashboard: detailed metrics, visual charts of usage, risk mitigation statistics, requirements and tasks completion tracking

Find us online at GetRevSavvy.com and book a demo to see the saving RevSavvy can bring to your team.