

Top 15 Growth Opportunities in Industrial Automation, 2024

Harnessing Tech Innovations to Achieve Resilient Businesses, Adaptive Strategies, and Sustainable Growth Amidst Dynamic Economic and Complex Geopolitical Landscapes

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Strategic Imperatives and Growth Environment

Industrial DevOps has emerged as a methodology to design, develop, and maintain production systems by combining the agility and efficiency of DevOps practices with the robustness of industrial automation. This approach is breaking down silos between development, operations, and other functional units, fostering a culture of continuous improvement and collaboration.

The industry is enthusiastically responding to the promise of industrial DevOps, driven by the escalating complexity of industrial software and the scarcity of skilled labor. Companies actively seek solutions that offer version control, continuous integration and delivery, automated backups, and collaborative capabilities for automation code development and delivery.

The growth environment for industrial DevOps is incipient, supported by an increasing recognition of its value in driving efficiency and innovation. Integrating agile, lean, and DevOps principles tailors the software development life cycle to the intricacies of cyber-physical systems.

From enhancing the capabilities of PLCs to facilitating predictive maintenance and ensuring seamless software updates for machinery, the use cases are both diverse and impactful.

Companies to Action or Growth Accelerator

Software Defined Automation (SDA): SDA offers groundbreaking solutions that enhance efficiency in complex PLC environments. Its end-to-end industrial DevOps and TechOps solutions introduce cross-PLC stack AI copilot agents, PLC code versioning and backup, vPLCs, and cloud browser-based engineering.

Copia: Copia's approach, centered around Git-based version control, increases the efficiency of PLCs. Its solutions offer benefits such as streamlined workflows, centralized file storage, and compatibility with major PLC programming environments.

Bosch: Bosch's DevOps consulting services are instrumental in creating swift product delivery pipelines. As a pioneer in industrial DevOps practices, Bosch's approach not only addresses operational challenges but also fosters a culture of continuous improvement.

Wobe-Systems: Wobe Systems excels with its no-code automation platform, scaling process automation across enterprises with industrial DevOps, connecting things with No-Code IoT, and creating standards for IIoT.

Growth Opportunities

- 1. Standardize and Automate Tasks:** Implement industrial DevOps practices to standardize processes and automate tedious tasks. Gain clear visibility of code on the plant floor, streamline troubleshooting, and reduce downtime, ensuring a resilient production environment.
- 2. Capitalize on Workforce Augmentation:** Address the technical talent gap by integrating automation tools that amplify the productivity of the existing workforce. Embrace solutions that simplify coding and debugging and provide self-service access, enabling the team to achieve more with less.
- 3. Innovate with AI-based Factory Agents:** Transform operations by integrating AI-based solutions to automate the documentation and explanation of legacy automation code, simplifying collaboration and knowledge transfer.
- 4. Optimize Operations with Virtual PLC Management:** Leverage the power of virtual PLCs to control operations by ensuring flexibility, scalability, and reduced dependency on vendor-specific hardware.
- 5. Harness the Potential of Git-based Workflows:** Streamline code development and management processes by adopting Git-based workflows, ensuring data integrity, collaboration, and faster product development.

Source: Frost & Sullivan

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