

Automation Testing Market by Offering (Testing Types (Static Testing and Dynamic Testing) and Services), Endpoint Interface (Mobile, Web, Desktop, and Embedded Software), Vertical (BFSI, Automotive, IT & ITeS) and Region - Global Forecast to 2028

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Report description:

The automation testing market is estimated at USD 28.1 billion in 2023 to USD 55.1 billion by 2028, at a Compound Annual Growth Rate (CAGR) of 14.5%. The surge in cyber threats and the critical importance of safeguarding sensitive data have elevated the role of automated security testing as a significant factor driving the growth of automation testing. Automated security testing tools are pivotal in proactively scanning and identifying vulnerabilities within an application's code, configuration settings, and dependencies. By conducting regular and automated security tests, organizations can establish a robust defense against potential threats, ensuring ongoing protection of their software assets. The dynamic nature of cyber threats requires a continuous and systematic approach to security testing, making automation an indispensable component in the arsenal of tools used to fortify applications against evolving risks. The integration of automated security testing not only enhances the overall security posture of applications and aligns with industry best practices for maintaining a resilient and secure software environment. As a result, the demand for automation testing, particularly in security, is fueled by the imperative to deliver safe and resilient software solutions in the face of an ever-evolving threat landscape.

"The IT & ITes segment is expected to hold the largest market size during the forecast period." The increasing adoption of serverless computing models in the IT landscape necessitates a robust approach to validation, and automation testing emerges as an essential component in ensuring the efficacy of serverless architectures. In this paradigm, where applications are built without traditional server infrastructure management, automation testing plays a pivotal role in validating the seamless execution and optimal performance of functions. Automation tools can simulate the dynamic and event-driven nature of serverless environments, assessing how well functions scale, respond to varying workloads, and seamlessly integrate with other

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components. Moreover, automated testing identifies potential issues related to resource allocation, function dependencies, and performance bottlenecks inherent in serverless architectures. By leveraging automation in serverless computing testing, organizations can confidently deploy applications, knowing that the serverless functions operate as intended, scale efficiently, and deliver optimal performance in response to dynamic and unpredictable workloads.

"The non-functional testing segment to register the fastest growth rate during the forecast period." In industries characterized by stringent regulatory frameworks, such as finance, healthcare, and government, adherence to compliance standards is paramount. Non-functional testing assumes a critical role in ensuring that applications within these sectors align with industry-specific regulations, thereby establishing a secure and compliant software environment. In the finance industry, where data integrity and confidentiality are imperative, non-functional testing validates the robustness of security measures to safeguard financial transactions and sensitive information. Similarly, in healthcare, where patient data privacy is a top priority, non-functional testing ensures that applications meet the stringent requirements of health data protection regulations. For government entities, compliance with regulatory mandates is essential for maintaining public trust and data security. Non-functional testing, encompassing security, reliability, and performance, becomes a cornerstone in verifying that applications meet and exceed the established industry standards. By incorporating rigorous non-functional testing protocols, organizations in these regulated sectors can instill confidence in stakeholders, mitigate risks associated with non-compliance, and ultimately provide a secure and resilient software environment aligned with the specific regulatory demands of their respective industries.

"Asia Pacific's highest growth rate during the forecast period."

The remarkable expansion of e-learning platforms and EdTech endeavors across the Asia Pacific region has heightened the necessity for meticulous testing of educational software, establishing automation testing as a pivotal component in this vibrant landscape. With a surge in the adoption of digital learning solutions, there is an increased emphasis on ensuring the reliability and effectiveness of educational software applications throughout the diverse countries in the region. Automation testing is critical in systematically validating the functionality, scalability, and performance of online learning applications. Given the diverse educational needs addressed by these platforms across the Asia Pacific, automation testing proves instrumental in identifying and addressing potential issues related to user interfaces, interactive features, and content delivery. The scalability aspect gains particular significance as e-learning platforms must seamlessly accommodate varying numbers of users, ensuring a smooth and responsive learning experience across different devices and connectivity scenarios prevalent in the diverse regions of the Asia Pacific. By integrating automation testing into the development and deployment processes, EdTech companies in the Asia Pacific can elevate the quality of their educational software, optimize performance, and deliver a robust and reliable learning experience for students and educators, thereby contributing to the sustained growth and success of the e-learning ecosystem across the region.

In-depth interviews have been conducted with chief executive officers (CEOs), Directors, and other executives from various key organizations operating in the automation testing market.

-□By Company Type: Tier 1 - 35%, Tier 2 - 45%, and Tier 3 - 20%

-□By Designation: C-level -35%, D-level - 25%, and Others - 40%

- By Region: North America - 30%, Europe - 30%, Asia Pacific - 25%, Latin America - 5%, and Middle East & Africa - 10%, The major players in the automation testing include IBM (US), Accenture (Ireland), Broadcom (US), OpenText (Canada), Capgemini (France), Microsoft (US), Keysight Technologies (US), Cigniti Technologies (India), Tricentis (US), Cygnet Infotech (India), Invensis Technologies Pvt Ltd (India), QualityKiosk Technologies Pvt. Ltd. (India), Apexon (US), Idera, Inc. (US), QA Source (US), Astegic (US), Worksoft (US), ACCELQ (US), Sauce Labs (US), SmartBear (US), Parasoft (US), Applitools (US), AFour Technologies (India), QA mentor (US), Mobisoft Infotech (US), ThinkSys (US), Qt Group (Finland), Codoid (India). These players have adopted various growth strategies, such as partnerships, agreements and collaborations, new product launches, enhancements, and acquisitions to expand their automation testing market footprint.

Research Coverage

The market study covers the automation testing market size across different segments. It aims at estimating the market size and

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the growth potential across different segments, including By offering (testing type, services), testing type (static testing, dynamic testing), dynamic testing (functional testing, non-functional testing) services (advisory and consulting services, planning and development services, support and maintenance services, documentation and training services, implementation services, managed services, other services) endpoint Interface (mobile, web, desktop, embedded software) vertical (banking, financial services, and insurance, automotive, aerospace and defense, healthcare and life sciences, retail, IT and ITeS, telecom, manufacturing, transportation and logistics, energy and utilities, media and entertainment, other verticals) and Region (North America, Europe, Asia Pacific, Middle East & Africa, and Latin America). The study includes an in-depth competitive analysis of the leading market players, their company profiles, key observations related to product and business offerings, recent developments, and market strategies.

Key Benefits of Buying the Report

The report will help the market leaders/new entrants with information on the closest approximations of the global automation testing market?s revenue numbers and subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. Moreover, the report will provide insights for stakeholders to understand the market?s pulse and provide them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

- 1. Analysis of key drivers (Accelerated Software Development Lifecycles, Continuous Integration and Continuous Deployment (CI/CD), rise in mobile and web applications), restraints (The impediment of skill and knowledge gaps in automation testing, Incompatibility with legacy systems), opportunities (Integration of artificial intelligence and machine learning, The rising adoption of cloud-based solutions), and challenges (Limited testing for UX and UI elements, Complexity of Test Script Maintenance) influencing the growth of the automation testing market.
- 2. Product Development/Innovation: Detailed insights on upcoming technologies, research and development activities, and new product and service launches in the automation testing market.
- 3. Market Development: Comprehensive information about lucrative markets the report analyses the automation testing market across various regions.
- 4. ☐ Market Diversification: Exhaustive information about new products and services, untapped geographies, recent developments, and investments in the automation testing market.
- 5. Competitive Assessment: In-depth assessment of market shares, growth strategies and service offerings of leading include IBM (US), Accenture (Ireland), Broadcom (US), OpenText (Canada), Capgemini (France), Microsoft (US), Keysight Technologies (US), Cigniti Technologies (India), Tricentis (US), Cygnet Infotech (India), Invensis Technologies Pvt Ltd (India), QualityKiosk Technologies Pvt. Ltd. (India), Apexon (US), Idera, Inc. (US), QA Source (US), Astegic (US), Worksoft (US), ACCELQ (US), Sauce Labs (US), SmartBear (US), Parasoft (US), Applitools (US), AFour Technologies (India), QA mentor (US), Mobisoft Infotech (US), ThinkSys (US), Qt Group (Finland), Codoid (India).

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