GENROCKET ROI ANALYSIS

The Impact of Synthetic Test Data Automation

GenRocket's *Synthetic Test Data Automation* provides multiple benefits to DevOps teams and delivers increased ROI at every stage of adoption and deployment. Its flexible self-service platform allows developers and testers to generate any volume or variety of synthetic data for any testing requirement on-demand. GenRocket technology has been successfully deployed across the full spectrum of testing categories.

- Component testing
- Performance testing
- Functional testing
- Integration testing
- API testing
- Regression testing

Synthetic Test Data Automation **eliminates the need for manual data creation and drastically reduces provisioning time when compared to testing with sensitive production data.**

Real-World Impact of the GenRocket Platform

To project the ROI that your company can achieve with GenRocket, consider the recent experience of a global financial services company that has deployed the platform. They implemented a GenRocket technology adoption program across their Card, Bank, Payments, Analytics and Enterprise teams to achieve the following goals through the broader use of synthetic data:

- Assured data privacy versus testing with sensitive production data
- Accelerated test data provisioning time for fully automated testing
- Greater testing accuracy leading to lower software defect rates
- Improved agility in responding to new application requirements

During a six-month initiative they were able to increase the adoption of scrum teams to 23 total teams and realized a dramatic increase in operational efficiency.

- Annual time savings of 1,212 hours (over 30 person-weeks per year)
- A 98% reduction in test data provisioning time (days reduced to minutes)
- A 67% improvement in test coverage (more testing with greater data variety)

Here are some examples of the test data use cases implemented by scrum teams:

- Increase combinatorial testing to cover 6,000 data permutations
- Ensure PCI compliance with synthetic data for 532 functional tests
- Simulate shopping transactions to train machine learning algorithms
- Test over 60,000 mapping rules across multiple general ledger data feeds
- Validate the rules used by a Data Loss Protection tool to ensure its effectiveness

GenRocket ROI Projection

To project an ROI for your company, the experience of the financial services company described above provides a baseline assumption for calculating annual cost savings as GenRocket is rolled out to internal DevOps teams. The table below contains average annual salaries and hourly labor costs for various DevOps staff members who typically use the GenRocket platform. Based on the mix of staff members provided in the table, a weighted labor cost of $37 per hour will be used to project the annual cost savings.

DevOps Staff	Annual Salary	Hourly Labor Cost	Percentage of Staff	Weighted Labor Cost
Software Engineer	$100,000	$50	20%	
Test Engineer	$80,000	$40	30%	$37
Tester	$60,000	$30	50%	

The financial services company cited above realized 1,212 hours in time savings across 23 scrum teams during the year. That means that each scrum team averaged just over 52 hours in time savings during the year. Based on the average time saved, and the average hourly labor cost, we can project the annual cost savings for various stages of deployment at your company. They are given in the table below.

# Scrum Teams	Hours Saved / Team	Annual Time Savings	Average Hourly Cost	Annual Cost Savings
25		1,300		$48,100
50		2,600		$96,200
75	52	3,900	$37	$144,300
100		5,200		$192,400

The annual cost savings in the table demonstrate how quickly a GenRocket investment breaks even, and how rapidly the return-on-investment increases with each stage of deployment. We believe these assumptions are conservative. **GenRocket routinely accelerates days of test data provisioning time down to just a few minutes.** This creates a dramatic reduction in test cycle time, while at the same time, increasing the number of tests that can run with a greater volume and variety of test data.

Direct and Indirect Cost Savings

This analysis only considers the direct savings calculated in labor cost. It does not include the many indirect cost savings to be realized from increased software quality and the identification of defects earlier in the development lifecycle. Software bugs can cost 100 times more to fix in production than during testing. Nor does it include the cost of defects in terms of lost revenue or brand reputation. **While GenRocket technology has proven to greatly accelerate the testing process, its even greater ability is to increase the coverage and quality of testing.** GenRocket truly delivers on the promise of quality at speed.