

Accelerating time-to-market through automated script generation.

THE CLIENT

EMC. Global leader in delivering information technology as a service (ITaaS), EMC enables businesses and service providers to transform their operations.

Fundamental to this transformation is cloud computing. Through innovative products and services, EMC accelerates the journey to cloud computing, helping IT departments store, manage, protect and analyze their most valuable asset — information — in a more agile, trusted and cost-efficient way

EMC employs approximately 70,000 people worldwide. They are represented by approximately 400 sales offices and scores of partners in 86 countries around the world. They have the world's largest sales and service force focused on information infrastructure, and work closely with a global network of technology, outsourcing, systems integration, service, and distribution partners.

PROBLEM STATEMENT

CloudArray is an application used as an interface to transfer data from client to cloud.

This application contains several features and various test scenario combinations that require frequent testing. As new features are added, the test scenarios keep increasing.

With all testing done manually, sometimes scenarios would be inadvertently missed, due to lack of time, or resources, leading to issues from the customer end.

In one such particular scenario, the client wanted to establish 5000 concurrent user connections to the shares (volumes) and copy files from all the connections in parallel. **To execute this we needed to create multiple shares and 5000 different users who can access the shares.**

Testing this scenario manually is nearly impossible as well as tedious and time consuming.

Leading data Storage Company

Fortune 500 and had reported revenues of **\$24.4 billion in 2014**, the largest revenue year in EMC's 35-year history.

COMPANY PROFILE

Nexii Labs is a US headquartered IT solutions provider with an R&D center in Hyderabad & Bangalore, India.

With deep domain expertise in expertise in storage, virtualization and cloud technologies, we offer state-of-the-art Product development, quality assurance, mobility solutions, cloud services, managed services and technical support services.

Our clients list includes global leaders and Fortune 500 businesses. We are also an ISO 27001 and ISO 9001:2008 certified organization.

Reducing time-to-market through automated tool developed to run automation tests.

NEXII APPROACH

Our team automated the product using scripting languages.

1. Using Python, we wrote automation scripts to automate CloudArray.
2. For increased efficiency, the same script was used for various test scenarios with slight modifications.
3. The time taken to develop/code the script was brought down dramatically to as less as (15 - 30 mins).
4. Test suites such as regression and smoke, which needs to be run in every release, were automated.

5. Our team innovated further to create an automated software called "CAT" that could generate the test script.

6. CloudArray Automaton Tool (CAT) is a desktop based GUI application developed in Python.
7. The tester has to select appropriate configuration based on the scenario and within seconds this tool will generate an automation script.
8. This tool effectively eliminates coding/developing of scripts every time and saves time.

5000 concurrent connections scenario stated in the Problem Statement section was resolved with the help of multiple python scripts which were executed across several multiple windows sessions. The scripts automatically created 5000 different users and connected the users to the share as per the requirement.

VALUE ADD

The client was able to deliver the Cloudarray product with high quality. The proportion of end user issues also reduced drastically to negligible levels.

KEY RESULTS DELIVERED

1. Reduced the amount of time taken to test manually with created scripts.
2. Eased the process flow significantly with an in house developed automation tool, CloudArray Automation Tool (CAT)
3. Enabled end-to-end product testing within a stipulated time.