



# Enabling accelerated Virtual Data Storage Product qualification through Automation

## The Company

The client is a leading provider of data storage, information security, virtualization, analytics, cloud computing and other products and services enabling businesses to store, manage, protect, and analyze data. The client's target markets include large companies and small- and medium-sized businesses across various vertical markets. A Fortune 500 company, it has over 70,000 employees and is among the world's largest providers of data storage systems by market share.

## Problem statement

The client's old framework was at EOL stage and the test tool had to be moved to a new framework.

This required automation of functional tests and development of automation tools for qualification of Virtual Data Storage Product with respect to third party arrays and applications, using custom framework stacks written in Python.

## Challenge

The new framework required thorough knowledge of storage internals and Python. The 3rd party arrays had only GUI and therefore did not have standard interfaces to interact with for automation.

It was a time taking process to develop interfaces to interact with the array via SSH or rest when expected time of testing is very less. This needed to be done for each 3<sup>rd</sup> party array that came up for qualification which is a tedious process involving a lot of maintenance efforts.

## Nexii Solution

After conferring with the client, Nexii decided that the best option was to select a new framework that combined with custom libraries. This would allow us to dramatically reduce the time required to create scripts.

As a result, the new approach enabled us to:

- Reduce the time involved in maintaining the scripts.
- Combine several automation tools to gain from the benefits of each while circumventing their weaknesses.
- Develop special features that could be reused by all scripts.
- Take screenshots.
- Connect with a data base  
Create automated reports.

Nexii Labs also provided prompted tests for arrays which had no interface to interact with, besides accommodating manually performed test steps. Tests run from virtual machines could also be given away to customers.

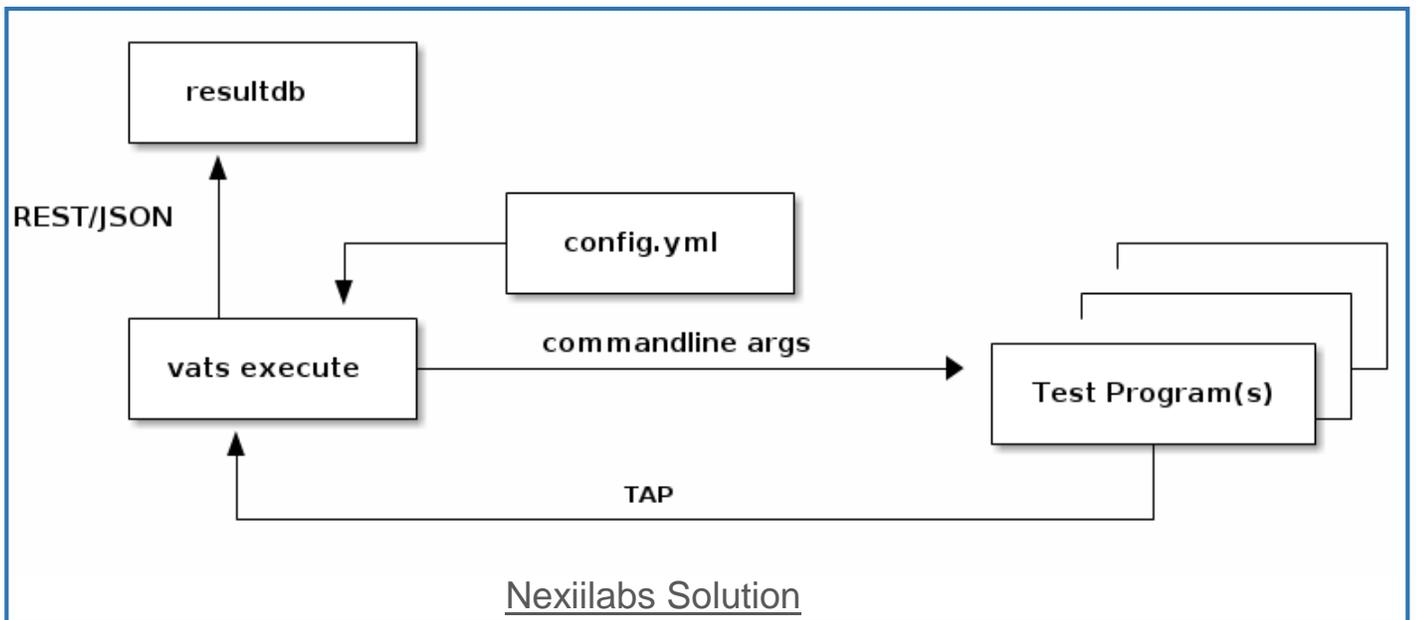
## Tools used

Some of the tools and technologies that were chosen include:

- Python as a general scripting language
- MongoDB
- FileIO

## About Nexii Labs

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.



## Key Results

- The tool helped the client reduce the 3rd party array/applications qualification time by 50%.
- Users ran tests in batches with minimal interaction.
- Nexii Labs successfully completed automation of 40 different test scenarios.

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