



Strategic Quality Assurance (QA) Partnership Enables a Software Product Company Deliver Better Products Faster

CASE STUDY

Customer: A US-based software product company that provides a robust Data Protection Platform

Size: 1,001-5,000 employees

Location: Boston, MA

Industry: Computer Software

Profile: The client provides a robust Data Protection Platform for businesses, including backup, disaster recovery, high availability and workload migration technology.

Services: Quality Assurance

Business Need

The client provides a robust Data Protection Platform, essential for disaster recovery and business continuity, to businesses of all size. Synoptek partnered with the client in 2005 to provide strategic Quality Assurance (QA) services for their product. At that stage, the primary requirements of the client were to:

- Enhance their product quality release on release.
- Optimize their product delivery process.

In the last decade and a half, the client's business evolved and so did the partnership with Synoptek. In last few years, Synoptek has been a key contributor to client's product development and delivery process – by providing end-to-end QA support, extended infrastructure support, and ad-hoc development support, if required.

Solution and Approach

Through the engagement, Synoptek provided extensive QA services to the client and scaled its team size and infrastructure support as and when required. The collaboration between the client and Synoptek evolved at various levels:

- **Strategic Collaboration:**

Synoptek was involved in the product delivery process to provide strategic inputs for optimizing it end to end. The Synoptek team followed the Agile testing process to align with the client's development process and was a part of all the sprint planning meetings, scrum calls, and retrospective meetings.

Synoptek also took complete responsibility for the QA planning, execution, and reporting process. Right from collaborating with the development team in JIRA to track new features to updating the bugs and steps to reproduce the bugs – the Synoptek team worked like an integral part of the client's product delivery team. In addition to collaboration in JIRA, Synoptek also managed TestRail, the client's test case management system, to maintain test suits and test cases for the client's multiple product releases.

In addition, the client, at times, also outsourced the bug fixing and ad-hoc feature development tasks to the team at Synoptek.

- **Infrastructure Support:**

To ensure that the client can scale up its product delivery, Synoptek also extended its services to provide infrastructure support.

As the client wanted to simultaneously test their newly developed product versions (major versions) and updates on the previously released versions (minor versions) on Windows Server Operating System and multiple Linux distros environments, Synoptek set up a dedicated lab environment for them.

The lab was leveraged as the client's beta test environment, and included virtual machines for:

- Windows Server OS (Windows 2008 R2, Windows Server 2012 R2, Windows Server 2016, Windows Server 2019)
- Various Linux distros and their respective versions (RHEL, CentOS, Ubuntu, SLES, and Oracle)

To set up the multiple, varied test environments such as Standalone, Windows Cluster, File Cluster, SQL AAG Cluster, and so on, Synoptek used virtualization technologies such as Microsoft Hyper-V, VMWare vCenter/ESX, and Citrix ZEN.

- **Extensive Test Support:**

The QA services provided by Synoptek was comprehensive and covered all aspects of product testing, ranging from functional testing to automation testing. The list of the types of QA tests performed for the client is listed below:

- Functional testing
- Regression testing
- Smoke testing
- Compatibility testing
- Localization Operating System (OS) testing
- Version Interop testing
- Fault tolerance testing
- Install/Upgrade/Uninstall testing
- Scalability and performance testing

- License testing
- Customized testing (customer specified cases reproduction in Synoptek's test lab)
- Automation testing (using PowerShell scripting for core feature testing as well as API testing using Postman and Newman)

Right from ensuring that the new features in the product worked well to test it in different OS environments to test it against localized requirements, Synoptek covered all the aspects that could impact the product performance.

Synoptek also performed advanced QA tests by simulating disaster scenarios, such as power off production or no network availability, to testing the product's behavior with different versions at the production and backup servers.

To ensure further exhaustive test coverage, Synoptek also tested:

- Windows features such as Test Failover, SQL Modernization (migration), Product driver testing, Windows NAT environment, Network socket testing, Product testing with various applications such as Windows Defender, Antiviruses software, MS Exchange, Microsoft applications, and other applications.
- Linux features support such as UEFI, IPv6, SELINUX, the combination of hard disk configurations – LVM & standard partitions, various Application Services – LDAP, NFS, SQL, and SAMBA, and others.

Testimonial from the client:

"One of the things that makes Synoptek stand out is that you've been a great business partner. This goes well beyond just having great people with outstanding character. The positive attitude, the culture, the behind-the-scenes processes – all the things your teams bring to the table have been targeted at making this relationship smooth and low maintenance. Sometimes these efforts have been obvious to us, such as flexibility in spinning up new projects quickly, going the extra mile to address customer issues, working late into your evening to meet a deadline, daily load-balancing of the QE workload, and automatically verifying the previous day's check-ins. Less obvious but equally important are the behind-the-scenes efforts, such as having new resources shadow the existing staff so they can transition in smoothly without disruption and the longevity of many of the team members. Thank you for enabling our combined success!"

– Senior Director, Engineering

Business Results

By entering into a strategic partnership with Synoptek, the client was able to achieve business numerous goals while remaining on-schedule and on budget.

The company successfully released several products while working with Synoptek, and their product launches were much smoother due to the rigorous testing Synoptek performed.

The client also saw superior business results year on year. Some of the performance metrics that improved considerably and can be quantified are:

- Faster product delivery cycles
- Saved in-house man hours to focus on development tasks

The partnership with Synoptek on infrastructure support, resource scalability, and technical expertise also helped the client improve its:

- Operational flexibility
- Responsiveness for their customers

About Synoptek

Synoptek is a global systems integrator and managed IT services provider offering comprehensive IT management and consultancy services to organizations worldwide. Founded in 2001; headquartered in Irvine, CA, we have offices and resources across North America and delivery centers in Asia.



19520 Jamboree Road #110 Irvine, CA 92612



888.796.6783



www.synoptek.com