



SUCCESS STORY HEALTHCARE & TRAVEL

INTERNATIONAL SOS RAMPS DIGITAL EFFORTS TO SUPPORT GLOBAL TRAVELERS WITH AWS

Apexon delivers new applications
and infrastructure to digitize offerings



International SOS is in the business of saving and protecting lives, providing vital health and security advice and assistance to organizations with international travelers and operations.

International SOS supports its clients' employees wherever they may be with risk assessments and alerts, local 24x7 advice and support, and expert medical assistance and referrals. The organization's business traveler clientele demands responsive and easily accessible digital services, and Apexon has been a longtime partner of International SOS, helping to deliver on these expectations.



**THE WORLD'S LEADING MEDICAL
& TRAVEL SECURITY COMPANY**



**10K EMPLOYEES, INCLUDING
+5K MEDICAL PROFESSIONALS
& +3K SECURITY SPECIALISTS**



**12,000 GLOBAL CLIENTS
INCLUDING 89% OF FORTUNE
GLOBAL 100 & 64% OF FORTUNE
GLOBAL 500 COMPANIES**



Apexon's services for International SOS ranged from developing new mobile applications for travelers around the world and migrating existing workloads to the cloud, to digitizing paper-based emergency response systems and deploying a global emergency response communications infrastructure. The engagement includes application design, development, quality engineering, deployment, launch and ongoing support and maintenance services as part of an ongoing relationship.

THE CUSTOMER JOURNEY

2014

- Enterprise Dev Augmentation
- Event Management Solution for FIFA App
- Assistance App 3.1 Development, TT6 Web App creation

2015

- Enterprise Health Management Solution
- Managed QA Service
- EHP Support
- Rebranding of Portals and documents

2016

- EHP IOS Screen Updates
- Sitecore POC

2017

- BA, Digital Solutions
- Member Bank Itinerary site

2018

- LiveChat with Mobile App
- Travel Tracker

2020

- Chaos Engineering - Infrastructure HA & DR Testing
- Solution Architect & Cloud Migration

THE RESULTS

KEY OUTCOMES



FASTER CYCLE TIME

For new digital services and infrastructure



HIGHER SERVICE LEVELS

As a result of more effective quality engineering processes



OPERATIONAL EFFICIENCY

Due to increased efficiencies in development and testing, and reduced resource requirements

OUR METHODOLOGY

THE DIGITAL LIFECYCLE

Apexon works with companies across the digital lifecycle.



GO DIGITAL

LAUNCH & EXPERIMENT



BE DIGITAL

AUTOMATE & ACCELERATE



EVOLVE DIGITAL

BE INTELLIGENT & AUTONOMOUS

Enable digital adoption in a quick, and agile manner



Build digital infrastructure and foundation for enterprises to scale



Leverage data engineering to make strategic decisions and get digital right every time

Apexon has helped International SOS assess obstacles, identify best practices and implement new processes for more agile and flexible delivery.

Apexon has deployed new processes and methodologies like Continuous Integration to improve the company's overall software delivery processes - leading to faster cycle time, higher service quality and lower operating costs.

Apexon re-architected the client server interaction & front end to enhance performance and enable client side configurability with custom localization support.

THE CHALLENGE

TO DEVELOP A COMPREHENSIVE PLAN FOR DIGITAL

International SOS faced multiple challenges in pursuit of its digital initiatives. Some were common across multiple projects; others were unique to specific projects and offerings. The four of biggest challenges they faced are:



The company's business model was based on serving multi-national companies whose executives traveled all over the world. As such, all services had to be available and functional globally and integrated with traveler analytics and demographics systems. This required that any new service be available on all primary mobile platforms at the same time, on any operating system and supported device, in any geography. Limited in-house testing capabilities made it very difficult to address the large-scale QE effort required to get quality apps and services to market, globally, in a timely manner.



International SOS was using a paper-based system to manage responses to pandemic situations. To digitize these processes, it needed to conduct a complete requirements assessment, define and configure multi-level action plans, create processes for making changes to those plans, and improve its ability to monitor the current status of the crisis and provide client employees with self-service access to critical information.



The International SOS Travel Tracker was an app used to monitor traveler location for safety. It was dependent on a single communication gateway for all forms of communications like email, SMS, text to voice, etc. This created a single point of failure and a threat to client safety.



There were also several core operational challenges. For example, too many unplanned technology deployments were being pushed into production, making it difficult to keep projects on schedule and assure service quality. There was no Continuous Integration process in place and its development infrastructure was insufficient.

THE SOLUTION

THE COMPLETE DIGITAL ENGINEERING SOLUTION

As part of this engagement, Apexon deployed five key solutions for International SOS:



STRUCTURED APPROACH

Apexon established a structured approach to QE that involved:

- A comprehensive testing strategy to cover overall approach, tools, targets and the timing of test activities for any application
- Core testing services – functional, regression and usability.
- Advanced testing services – performance, scalability, security and vulnerability
- A 3-phase approach for test automation alongside development sprints.
- UI functional automated testing

This effort identified critical gaps in existing QA processes and dramatically increased the rate of defect discovery. An automation framework for shared services automated a significant portion of the test footprint, accelerating cycle time and improving service quality.



LEVERAGED DIGITAL EXPERTISE

Apexon leveraged its digital expertise to replace existing paper-based systems with a new electronic health portal. The solution included:

- An iterative development model to incorporate evolving requirements
- Detailed blueprinting and design, enabling quick prototypes for approval
- Continuous collaboration with geographically distributed teams and experts
- Use of robust CI frameworks

The development process was able to incorporate continuous feedback without slowing time-to-market while also making effective use of time and effort already invested.



CONTINUOUS INTEGRATION

To address the core operational challenges in International SOS' software delivery process, Apexon deployed Continuous Integration using a Jenkins Framework. The solution included:

- A joint architected CI flow and objectives with emphasis on code coverage to improve unit and regression testing
- Automated test suites used a Selenium framework
- Jenkins reports enabled better decision making and planning

This approach improved delivery quality and process efficiency, accelerating time-to-market for new services and preventing rework.



INDEPENDENT COMMUNICATION ENGINE

Apexon conceived and developed an independent communication engine for all International SOS applications - both internal and external. This included:

- A flexible and modern single-page architecture with popular frameworks like Backbone, Require and Marionette
- Re-architecting the client server interaction & front end to enhance performance and enable client-side configurability and custom localization support
- Responsive UI/UX for web, mobile & tablet (single code base)
- Agile Dev & QE practices with CI enable iterative roll out and adaptation

This solution reduced costs significantly by eliminating 3rd party map solution and requirements for custom development. It also improved Map UI performance by up to 40%.



GLOBAL DIGITAL TRAVEL RISK MANAGEMENT

Apexon partnered with International SOS to migrate its global digital travel risk management product offering from legacy data centers to a modern hybrid AWS cloud platform. This included:

- An AWS Cloud Migration Assessment of International SOS' product portfolio to determine migration scope and effort
- A complete AWS migration strategy (re-host, re-platform, retain, re-factor, retire and re-purchase) in alignment with program goals and objectives
- An upgrade of legacy OS and database servers in preparation for migration
- Review of their AWS cloud architecture and collaboration with International SOS infrastructure and networking teams to finalize LLD and HLD cloud architecture/blueprints
- Validation of International SOS' high availability objectives, and development and execution of automated test scripts

Serving as the central point for coordinating the delivery effort across multiple client and external vendors, proactively identifying risks, resolving technical issues, and ensuring key business objectives are met.



SERVICES USED:



AWS Direct Connect



AWS Transit Gateway



AWS Site to Site VPN



Apexon is a pure-play digital engineering services firm focused on helping companies accelerate their digital initiatives from strategy and planning through execution. We leverage deep technical expertise, Agile methodologies and data-driven intelligence to modernize systems of engagement and simplify human/tech interaction.

We deliver custom solutions that meet customers' technology needs wherever they are in their digital lifecycle. Backed by Goldman Sachs and Everstone Capital, Apexon works with both large enterprises and emerging innovators — putting digital to work to enable new products and business models, engage with customers in new ways, and create sustainable competitive differentiation.



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