Inmarsat

Inmarsat provides vital solutions to customers who must communicate in locations where terrestrial telecom networks are unreliable or lack the necessary reach. To ensure that these systems operate to the highest standards, the company must rigorously test new applications and services. The Micro Focus® Application Lifecycle Management (ALM) product suite helps Inmarsat meet strict testing requirements while cutting testing time and supporting a future that will enable it to adopt new methodologies, including DevOps.

Overview
Inmarsat's global satellite communication has its roots in maritime safety systems where lives can depend on total effectiveness. Even though the company now serves many other markets, the mindset of delivering quality is still prevalent and Inmarsat underpins it by rigorously testing new services with Micro Focus Application Lifecycle Management (ALM) supported by Infuse Consulting.

The company was established in 1979 by the International Maritime Organization to enable ships to stay in constant touch with shore or to call for help in an emergency, no matter how far out at sea. Today, Inmarsat operates from 60 worldwide locations and offers a wide portfolio of global satcom solutions to customers who need to communicate where terrestrial telecom networks are unreliable or simply cannot reach.

They include merchant shipping, governments, airlines, the oil and gas industry, mining, construction, and humanitarian aid agencies. The Inmarsat service is provided by 11 satellites that use a range of equipment, including global handheld satellite phones, notebook-size internet devices, and specialist terminals and antennas.

Challenge
MAINTAINING A HISTORY OF SERVICE EXCELLENCE
Mission-critical communications can often be difficult for people travelling at sea, in the air, or even on land, and this is where specialized satellite links can ensure global connectivity. With more than three decades of experience, Inmarsat is the industry leader and pioneer of mobile satellite communications.

Because of the nature of its vital services, Inmarsat must ensure that all its systems operate to the highest standards and to achieve this, it must rigorously test new or updated applications and services.

"Testing is important. We want to make sure we get quality products out of the door because applications like our billing and provisioning systems have a big impact on our external customers," says Inmarsat's director of test and support, Dwight Howell.

"Anything that goes wrong puts our whole reputation at risk, so HPE Application Lifecycle Management tools (now part of Micro Focus) are vital for effective testing."

DWIGHT HOWELL
Director of Test and Support
Inmarsat
Inmarsat has a test team of six at its head office in London, two test staff in St John’s, Newfoundland, and a further 13 who work on both testing and support in Batam, Indonesia. Because the in-house teams are not large, external agencies help on large projects so Inmarsat required testing software that would provide continuity across all teams. Also, it is investigating new, lean processes such as continuous testing and the DevOps model for agile software development, so the tools would eventually have to support these scenarios too.

Solution

**AGILE SAAS DELIVERY MODEL**

Inmarsat chose Micro Focus Gold Partner Infuse as its partner for delivering the ALM suite of test and development software via a Software-as-a-Service (SaaS) model.

"Organizationally, we like to use standardized tools. We like to have an application that has an organization behind it that can provide support and certainty, HPE ALM (now part of Micro Focus) has that level of support," says Howell.

ALM was chosen and implemented to help define, build, test, and deliver applications with greater speed and agility.

They include such solutions as Micro Focus Performance Center, which provides consistent processes for application performance testing, and Micro Focus Quality Center for standardized quality management testing. Micro Focus LoadRunner and Micro Focus StormRunner Load—a SaaS delivered cloud testing solution—are used for load testing; Micro Focus Unified Functional Testing introduces automation to reduce manual testing.

"Traditionally, our development teams have used a waterfall model and we are now working to bring test and support teams closer together. We are in a manual test mode, so we use HPE ALM to capture all the results," says Howell.

"HPE ALM is used by our internal teams and, for consistency, it is our preference for external agencies such as Infuse. This provides visibility of what they are doing and standardized reporting. It gives us a level of confidence because we can't get at the finer detail if reports are just generated on Excel sheets."

In-house teams use ALM for ‘business-as-usual’ modifications to existing applications, but one area where they are also proving invaluable for both internal and external testers is One IT. This includes a two-year project to consolidate 29 legacy billing systems into a single platform. These disparate systems were brought into the company following Inmarsat acquisitions and in future, further large test projects will be required for legacy provisioning, CRM, and other internal systems.

"We use the whole test management toolset, but the primary tool for capturing the test plan, test results, and doing the measurement against them is HPE Quality Center (now part of Micro Focus)," says Howell. "We have been using HPE LoadRunner (now part of Micro Focus) and HPE StormRunner Load (now part of Micro Focus) for performance and load testing, and we are going to ramp up in that area using the cloud-based HPE StormRunner Load (now part of Micro Focus) as a standard solution.

"We are a global company and our customers are located around the world. Because we also have development and testing in various locations, one of the key things we need is the ability to be geographically diverse in our performance testing and in our access to HPE Quality Center (now part of Micro Focus)." It was a defining factor when we went to the SaaS model. Obviously, we could connect back to central services but we found it was easier to deploy and turn on users in remote locations with the SaaS infrastructure. The SaaS model makes a lot more sense for someone with diverse resources like ours."
Results

BASIS FOR LEAN, AGILE TESTING

So, what practical value does Inmarsat gain from its testing? Howell explains: “We start with the requirements and we test against those requirements. A lot of the time there may be some misunderstanding of requirements from a developer perspective, so we certainly highlight issues where the development is incorrect.

“We also facilitate the user testing through acceptance testing and that’s an area where we find a lot of differences between what the requirements are and what the internal users are expecting to see in the application. That’s where we capture the most issues that need rectifying. Also, with functional testing, we typically pick off what we call true bugs that were intended to be coded in one way but got miscoded.

“The biggest benefit of the SaaS platform that we see is the ability to quickly add users, including third parties to provide access to the test data. In a hosted environment, this would typically take weeks, especially dealing with external security concerns, but now it can be typically done in days and only requires license availability.

Inmarsat’s Micro Focus-based test processes are continually developing. It is looking forward to growth in test automation and its development teams are investigating DevOps models with the lean and agile principles of continuous development and continuous test.

“It’s an area where HPE (HPE Software, now part of Micro Focus) has tools and we have started exploring those,” says Howell. “As we go forward we are certainly considering more open source tools. We have started looking at the latest development, HPE ALM Octane (now part of Micro Focus); what it provides and its ability to tie into some of these continuous release-development toolsets. It’s early stages but it’s encouraging.

“Inmarsat comes from a maritime background and although not all our newer services are intrinsically safety-based like our original ones, we still have that mentality where we want to ensure the highest quality of service. It’s very important to have a structured test approach and HPE [software] products (now part of Micro Focus) remain central to our testing efforts,” concludes Howell.

Learn More At software.microfocus.com/software/alm
“HPE ALM products (now part of Micro Focus) are central and core to our testing efforts. They are the only tools my test teams use to manage all our testing exercises.”

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