

## *forfront* CASE STUDY

Navigating complexity & compliance.

*A future-proof, bespoke cloud solution giving IC-ENC an efficiency saving equivalent to 1 day a week*

# ic-enc

### **OUR CLIENT:**

International Centre for Electronic  
Navigational Charts (IC-ENC)

The IC-ENC is a low cost, not for profit organisation, and a division of the Ministry of Defence. They were set up in 2002 to assist Hydrographic Offices around the world with the production and distribution of high quality electronic nautical charts (ENCs). The IC-ENC ensures all nautical chart data is compliant to the international standards, consistent across the global dataset, and readily available for use. Their work ensures that shipping can navigate safely, efficiently and confidently, whilst ensuring other maritime users are using the same approved data.

## WHY FORFRONT?

*"Forfront was chosen following a thorough selection process, what stood out was their proven track record, their professionalism and demonstrable approach including a proposed solution fit for purpose, which was delivered on time. No small feat given the short deadline and the project growing approx.. 30% in scope..."*

Lee Greenlee of Novo Systems, project partners



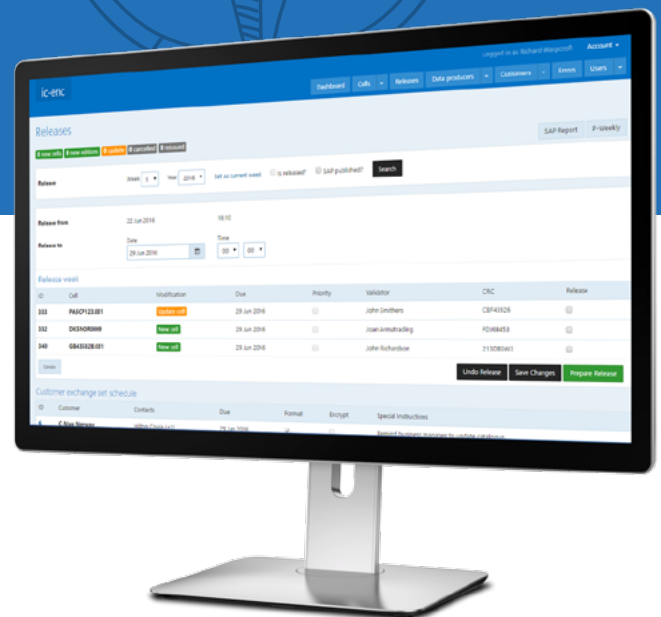
## THE CHALLENGE

The IC-ENC play a critical, highly specialist role within the maritime industry. Essentially they are the nautical equivalent to ordinance survey, but with the added complexity of a constantly moving and changing sea. They required a complex validation tool which could integrate with multiple 3<sup>rd</sup> party applications, to identify inaccuracies and errors in nautical mapping data supplied by external contributors.

For over 14 years, IC-ENC operations had been successfully running their own home-grown system which was supported by a number of manual processes and procedures. An off-the-shelf solution was never an option for the IC-ENC due to their unique operation, which has to handle convergence of multiple datasets, manage validation protocols, deliver a full audit trail as well as satisfy specific nautical compliance standards.

IC-ENC needed a system that could effectively support their 10 year strategic plan and efficiently cope with both the growth of the operation and the anticipated developments which would require cost-effective, specialised future enhancements. Both future-proofing and bringing their system in line with strategic business plan and objectives.

It was also important that, where possible, workflows were altered as little as possible, as procedures were audited to ISO 9001 quality standards which would also minimise impact, and re-training required by validation staff.



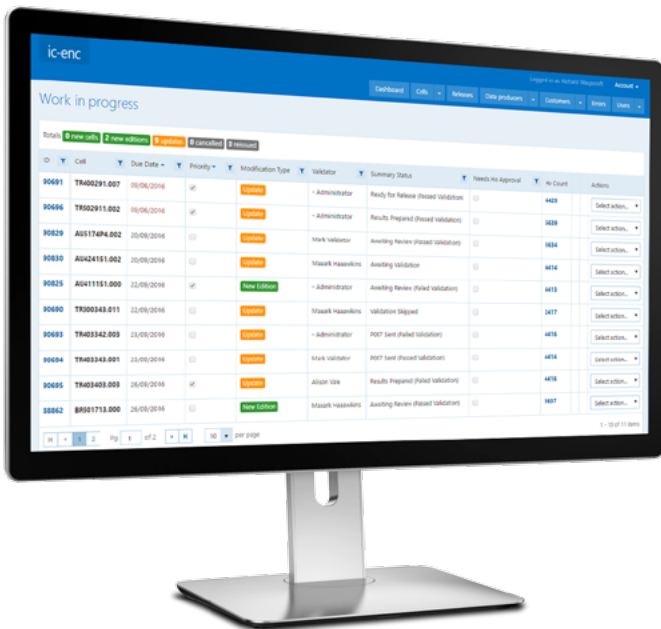
## THE PROCESS

Working in partnership with Novo Systems, Forfront embarked on the initial process of requirements gathering, which over a 2-day period reviewed workflows, technical necessities and future roadmap as defined by the strategic business plan.

The project was subject to a challenging timescale, alongside the highly complex requirements and user journeys, so having a dedicated team with a devoted, accessible project manager was very important. Using the Agile methodology, the development process was iterative with the flexibility to amend and develop the requirements available throughout. With work broken into 2-week sprints, bookended by presentations of progress, demonstrations of functionality and prioritisation for the next sprint, IC-ENC maintained a comprehensive understanding of the project working in complete collaboration with the Forfront technical team.

## THE RESULT

To facilitate managing this crucial data, on a global level, with full audit trails and accountability, fulfilled by users who undertake complex user journeys with varying levels of permissioning, Forfront delivered a bespoke SQL database with custom built front end and forms, deployed to Microsoft Azure. And even though behind the scenes there was a highly complex architecture, for each user the experience was simple, intuitive and friendly.



The system created dubbed the DMD (data management database) that fulfils a number of critical functional roles for the IC-ENC. It comprises elements of CRM, compliance and audit management, communication with both contributors and VARs (Value Added Resellers) alongside the processing and distribution of validated information.

The discovery and specification process also provided some additional benefits. For example, workflows using the original system were supplemented by, often time-consuming, manual processes which were identified, examined and streamlined. E.g one particular workflow included up to 20 steps but, with the advent of the new technology, this was reduced to 7 steps.

The new solution, employing the latest technology, was able to incorporate and automate some of these processes, saving time, improving efficiency and reducing the risk factor of 'human error'. The efficiency saving has been estimated at a 20% time-saving, equivalent to one day a week, however this estimate could be considered conservative as it cannot factor in any additional time-saved on error correction through the efficiencies of an automated workflow.

## ABOUT FORFRONT

Forfront makes it simple for businesses to expand and grow, with a repertoire covering software development, state-of-the-art mobile apps, a suite of customisable digital marketing services, website creation, bespoke corporate branding designs, the leading email marketing product e-shot™ and more. Since 1998 Forfront has grown rapidly year on year, helping thousands of clients including many household names and industry-leading firms, while e-shot™ has over 1800 users.



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