

Dev Ops & ARA CASE STUDY

LYRA
Infosystems



IT delivery made
simpler, faster, better.

Delivery Development with DevOps and ARA

How Lyra transformed a multinational EDA's IT delivery processes

The organization in focus is a multinational Electronic Design Automation (EDA) company that primarily develops software used to design and print chips and circuit boards. It also integrates, verifies, and implements complex digital System on Chips (SoC) and provides assistance to develop hardware and software platforms that support end applications.

The client desired a marked increase in developmental productivity, efficiency, and profitability by making improvements in internal build processes.

Apart from the issues mentioned, the organization wished to combat a variety of issues that hindered productivity and created operational bottlenecks.

Challenges

Being part of a multinational organization, members of the development teams are scattered all over the world. These teams followed a manual build-test-deploy process, which needed to be automated – a process essential to cater to the growing software production requirements of the organization.

Another concern for the organization was the release team's slow build and test scripting. Upon examination, it was also evident that existing scripts would be unable to keep pace with future requirements. The management identified another problem when they realized that any project to remediate these issues would be substantial, and not to mention, demanding in size and scope – something that the organization was not equipped to deal with internally. In order for the development team to be efficient and effective with build times, the organization required tools to help them stay on track and successfully complete product development.

While these issues were the client's primary concerns, there were a few other roadblocks that needed attention as well:



Persistent delays between product releases



Error-prone manual handoffs in software delivery processes



Multiple bug oversights due to lack of automation efficiency



Unsatisfactory utilization of IT infrastructure



Avoidable time wastage in managing home-grown scripts



Poor visibility and reporting into software delivery processes



Inadequate usage of reuse scripts, tools, or best practices across teams

Where we came in

After assessing the task at hand and keeping in mind the future risk of working with a cumbersome and complex development cycle, Lyra recommended that an efficient DevOps and ARA system was the need of the hour.



When deployed effectively, DevOps encourages collaboration and open communication to help organizations deliver better, more fail-proof software.

An efficiently incorporated Application Release Automation (ARA) framework instils a consistent, repeatable, and auditable process of software packaging and deployment within an organization.

Together, a systematic DevOps program and a seamless ARA framework go a long way in improving productivity, saving time, and increasing profitability.

Taking the above factors into account, the client zeroed in on Lyra Infosystems as the ideal partner to consult with and offer services essential to usher them into the domain of DevOps and ARA.

What we did

Upon implementation, Lyra's services had an immediate impact. Previously, the client used 4 cores to complete a 5 hour comprehensive build-time process. With Lyra's services and solutions, this process has been shortened to 1 hour, owing to 12 cores. Eventually, the time taken for full, clean builds was cut down even further to 10 minutes and incremental builds could be accomplished in as little as three minutes.

Lyra's services and consulting went a long way in helping the multinational EDA by:



Maximizing resource utilization by switching workflow optimization processes from modifying code and launching pre-flight to building, testing, and deploying



Heightening reliability by enabling incremental builds. Teams are now able to track the inter-reliability of programs via a dependency tree



Improving the number of builds from three full cycles to 18-26 builds per day



Reducing development time - the team was able to complete tasks in 20 days, as opposed to 65 days. The remaining 45 days are used to innovate and focus on product delivery



Incorporating process improvement and automation that aided in fostering a more comprehensive and methodical implementation process. The first phase comprised running the build and completing unit and smoke tests; the second involved system tests that ensure a fully automated software production environment



Ushering seamless integration efficiency as, for the first time, developers were able to integrate builds without the assistance of release engineers



Securing complete visibility and cost reductions, which ensured tight production schedules for products were maintained more effectively. A comprehensive building and testing procedure guaranteed the identification of potentially expensive issues early in the development process



The Benefits

By leveraging Lyra's DevOps and ARA services, the organization managed to achieve their goals of automating build-test- deploy processes and improving developmental efficiency and speed. With Lyra's services, the organization's operations were hastened, with marked improvements in the creation of software builds and management reports and QA resource positioning and testing.

With DevOps and ARA systems in place, the organization could now:



Release higher quality software products and the build time is reduced by 80%.



Reduce the cost of software delivery with an estimated savings of at least 2000 engineer-hours per week



Increase developer productivity



Improve IT infrastructure utilization by 55-75%



Hasten troubleshooting processes as



Enhance the efficiency and collaboration between the globally distributed development team

About Lyra

Lyra is a professional services and consulting company with over ten years of industry experience. Being an IT pioneer, we specialise in widespread support and comprehensive Source technologies.

We are an industry leader who understands the importance of proper application of software a business. In addition to support, services, and consultations, Lyra also extends implementation tools, upgrades, and vulnerability resolution to clients, amongst a host of other services.