

Auto Tech Firm Accelerates Large Scale App Containerization for Cloud with CAST Highlight

CASE STUDY

Partner / Client Profile

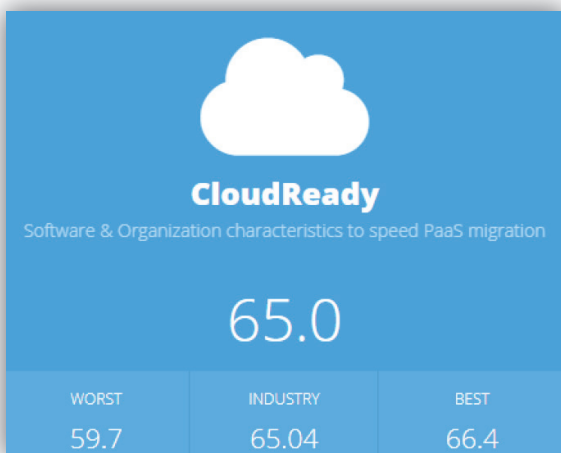
Top global cloud platform provider operates in 170+ countries and employs 140K+ professionals worldwide. Their client is a global leader in data and software services for the automotive industry processing over 300 million digital transactions annually for 200,000 partners and customers.

Business Challenge

The automotive vendor's CIO and CTO decided to embark on a massive cloud migration initiative with a goal of retiring 54 data centers within 9 months. They have over 200 software products representing an overall portfolio of 3,000+ applications hosted across their data centers. Many applications were developed using legacy technology stacks that were experiencing resiliency and security issues while incurring significant cost to maintain. Furthermore, the applications were running on aging hardware and several of the data center contracts were set to expire by the end of the year.

The Solution

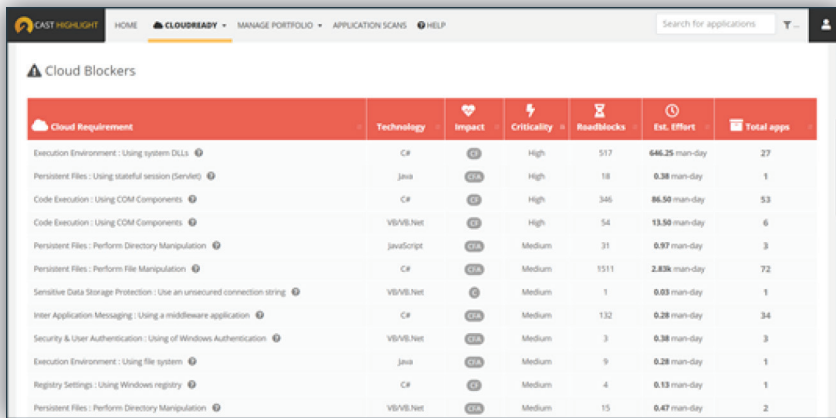
Hearing of the client's aggressive plan, the cloud platform provider recommended the client utilize CAST Highlight to rapidly assess the cloud readiness of every application and develop a detailed technical roadmap to migrate each application to the cloud. The initial plan was to refactor most of the legacy code and adopt PaaS services once migrated to the cloud. However, once the application assessment process began, the CIO realized this approach would take much longer than 9 months. He decided to use the automated outputs from CAST Highlight to instead start by containerizing the applications enabling them to make the move to cloud within the desired timeframe.



The Outcome: A Fact Based Containerization Roadmap in Days vs Weeks

The client started with an initial subset of the application portfolio made up of 5 of their products, 134 individual applications, and 9 data centers. As part of this initial phase, the client compared the time it took to manually assess a few applications that were well understood by the migration team with the automated approach using CAST Highlight. **The automated approach using CAST Highlight was 5x faster than the manual approach with the same level of accuracy.** CAST Highlight analyzed **all 134 applications in under 2 days** and produced insights that included: the cloud readiness of each application, specific blockers that needed to be remediated within the code of each application, and recommendations on the cloud services that each application could adopt once migrated.

Blockers include coding practices that would prevent containerization of the application such as using stateful sessions and local file dependencies. The Health of each application (Resiliency, Agility, Complexity) was also used to prioritize applications and identify applications that needed to be improved before containerization. These insights were used to develop a detailed technical roadmap which included segmentation of every application for containerization or possible retirement. Within 5 weeks, the client containerized 40 of their applications and developed a plan to complete the process for the rest of the portfolio. And, the client acknowledged that CAST Highlight will be required for applications that were less familiar to the migration team. The client CIO and CTO now have a detailed roadmap to complete the migration of all 3,000 applications to the cloud and retire their 54 data centers within 9 months.



Cloud Requirement	Technology	Impact	Criticality	Roadblocks	Est. Effort	Total apps
Execution Environment : Using system DLLs	CF	High	High	517	646.25 man-day	27
Persistent Files : Using stateful session (Service)	Java	High	High	18	0.38 man-day	1
Code Execution : Using COM Components	CF	High	High	346	86.50 man-day	53
Code Execution : Using COM Components	Visual Basic	High	High	54	13.50 man-day	6
Persistent Files : Perform Directory Manipulation	JavaScript	Medium	Medium	31	0.97 man-day	3
Persistent Files : Perform File Manipulation	CF	Medium	Medium	511	2.83 man-day	72
Sensitive Data Storage Protection : Use an unsecured connection string	Visual Basic	Medium	Medium	1	0.03 man-day	1
Inter Application Messaging : Using a middleware application	CF	Medium	Medium	132	0.28 man-day	34
Security & User Authentication : Using of Windows Authentication	Visual Basic	Medium	Medium	3	0.38 man-day	3
Execution Environment : Using file system	Java	Medium	Medium	9	0.28 man-day	1
Registry Settings : Using Windows registry	CF	Medium	Medium	4	0.13 man-day	1
Persistent Files : Perform Directory Manipulation	Visual Basic	Medium	Medium	15	0.47 man-day	2

CAST Highlight outputs include a detailed list of cloud migration blockers organized by technology, impact, criticality, location, and the estimated effort to remediate. This automated and objective assessment approach enabled the CIO and CTO to make migration decisions with confidence.

"CAST Highlight was just as accurate as manually assessing our applications but, at a fraction of the the time."
- Client CIO

About CAST

CAST is the pioneer and category leader in Software Intelligence, providing insight into the structural condition of software assets. CAST technology is renowned as the most accurate "MRI for Software", which delivers actionable insights into software composition, architectures, database structures, critical flaws, quality grades, cloud readiness levels and work effort metrics. It is used globally by thousands of forward-looking digital leaders to make objective decisions, accelerate modernization and raise the security and resiliency of mission critical software. For more information, visit castsoftware.com.