

Advanced

COBOL deployment using Docker streamlines cloud delivery, enabling optimized server infrastructure, rapid time-to-market, and DevOps practices

Overview

Advanced delivers focused software solutions for public sector, enterprise, commercial, and health care organizations that simplify complex business challenges and deliver immediate value.

Challenge

The Advanced e5 solution provides effective management of end-to-end accounting processes in one fully integrated system. The solution is flexible and customizable to specific industry and organization's requirements. With powerful reporting capabilities finance professionals are able to efficiently meet increasing demands and drive business success.

"Our customers enjoy more cost-effective and flexible deployment, with higher server density. It used to take us at least half a day to configure a new customer. With Visual COBOL Docker support this is done in minutes now."

GARY COWELL

Solution Architect for e5
Advanced

Originally developed in the early 1990s, e5 uses a proprietary development language that produces COBOL code compatible with Linux, Windows or Mainframe systems. Advanced remained committed to COBOL and moved with the different Micro Focus® COBOL generations to ensure its continued broad support for different platforms. When customers started expressing an interest in a cloud version of e5, Advanced saw this as an opportunity. Gary Cowell, Solution Architect for e5 at Advanced, comments: "We needed a light-weight and agile way to deploy e5 in the cloud, without negatively affecting performance. An enterprise version of e5 in the cloud would give our customers a more cost-effective deployment platform, making flexible and optimum use of available compute resources."

Solution

With over 40 million Lines of Code (LOC), re-writing e5 was never an option, but amending it for the cloud market was, so Advanced CloudFinancials was created. Advanced was pleased to learn that Visual COBOL supports the Docker container platform, further increasing flexibility for application development and deployment. A Docker container image is a light-weight, standalone, executable package of software that includes everything needed to run an application: code, runtime, system tools, system libraries, and settings. Packaging the



At a Glance

- **Industry**
Software and Technology
- **Location**
United Kingdom
- **Challenge**
Bring to market a new SaaS accounting offering with scalability and high-availability built in
- **Products and Services**
Micro Focus Visual COBOL
Micro Focus COBOL Server with Docker
Container support
- **Results**
 - + Faster on-boarding of new customers from half a day to just minutes
 - + Docker-based deployment into AWS provides seamless and rapid deployment
 - + Scale out solution developed using Docker Swarm
 - + Streamlined DevOps process with continuous testing and deployment
 - + Integration with a choice of RDBMS, including open-source, provides attractive commercial options to customers

“Our choice for Micro Focus COBOL over 25 years ago is still paying dividends for us. We have enjoyed continued wide platform and OS support and have now made the move to the cloud, leveraging Visual COBOL and its Docker support.”

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Solution Architect for e5
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CloudFinancials application within a container ensures that all required software components are available irrespective of where the application is ultimately deployed—on premise or public cloud.

The Advanced team architected the CloudFinancials COBOL code to run as micro services within the Amazon Web Services (AWS) cloud platform. Running independently within Docker containers means several asynchronous COBOL processes can handle bulk updates, giving greater scalability and performance and making the most of compute resources available to CloudFinancials customers.

Visual COBOL also enabled Advanced to leverage PostgreSQL, an open source relational database management system. Cowell: “We can now offer customers a cost-effective alternative to traditional on premise RDBMS. Our ability to target multiple RDBMS vendors is a major part of the value we’re getting from Visual COBOL that we can offer to our customers.”

Advanced also appreciates the seamless Java integration, as Cowell explains: “CloudFinancial’s execution environment has a complex collection of memory areas which are passed between COBOL programs to allow them to communicate in a session. As users navigate between screens they will seamlessly move from COBOL programs to Java implementations on the backend. JBoss sends requests to load-balanced COBOL programs which then query a PostgreSQL database. This smooth workflow is completely unique to Visual COBOL.”

Each new CloudFinancials customer has its own dedicated set of micro services containers. This keeps them isolated from each other, while still sharing the same data store and virtual machines. It means that configuration time for new customers is virtually zero, as everything is packaged up in an easy deployable artefact. A new customer can be live at the click of a button.

Results

Visual COBOL support for Docker containers has optimized the development process within Advanced. A new DevOps approach ensures that when source code is changed a container is built automatically and promoted to a Quality Assurance (QA) testing environment in Amazon. From there, it’s automatically deployed in a continuous process, so that CloudFinancials customers have instant access to new features and fixes.

Being able to provide a cloud version of E5 has delivered many benefits, according to Cowell: “Our customers enjoy more cost-effective and flexible deployment, with higher server density. It used to take us at least half a day to configure a new customer. With Visual COBOL Docker support this is done in minutes now. Docker containers allow centralized process logging, and health checking of all containers, with a self-healing system in place. New instances can be started and stopped easily and our customers are at all times assured of the strict data privacy regulations CloudFinancials adheres to, using the container method.”

He concludes: “Our choice for Micro Focus COBOL over 25 years ago is still paying dividends for us, having now made the move to the cloud, leveraging Visual COBOL and its Docker support.”