

**OBJECT COMPUTING**  
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## **CASE STUDY: UPGRADE TO MICROSERVICES COMPLETED IN 4 WEEKS**

Open source Micronaut framework enables manufacturing giant to upgrade legacy system to microservice architecture in only 4 weeks

### **THE CLIENT**

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A multinational manufacturer of spacecraft, commercial jetliners, fighter jets, rotorcraft, and military cybersecurity systems.

### **THE OBJECTIVE**

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Replace an obsolete legacy tool with a microservice solution that would deliver maximum performance, scalability, and availability, as well as the flexibility to rapidly deploy changes with minimum down time

### **THE SOLUTION**

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The company chose the Micronaut framework's built-in Netty-based web server to serve a single-page application (SPA) written in Javascript and CSS. The Micronaut framework also hosted the microservices used to perform the business logic.

### **ADDITIONAL TECHNOLOGIES EMPLOYED**

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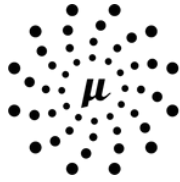
- HTML 5, Javascript (ES5), and CSS 3 without a framework to keep the application frontend as fast and lean as possible
- JSON for communication between the SPA and microservices

"Micronaut was a key enabler in successfully creating and deploying a web based engineering analysis tool for my company. Its ease of use and great documentation allowed us to produce a tool in an incredibly short period of time. Additionally, the tool has been rock-solid since being deployed."

- Client Spokesperson

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## EVIDENCE OF SUCCESS

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The development process was smooth, implementation of the solution was seamless, and the application's performance is exceptional.

- The developer was unfamiliar with the Micronaut framework, but the well-written and thorough documentation and freely available source code on GitHub provided everything he needed to get started and build the solution quickly.
- The application was developed in only 4 weeks.
- Initial load of the page is sub-second.
- Most interactive features of the application are handled in the browser. The remaining interactive features require calls to microservices, which respond sub-second.
- Updates are deployed with under 10 seconds down time because the Micronaut application starts in under 3 seconds.
- There were zero unplanned outages during development and implementation.

