Our client, one of the largest cable companies, decided to migrate their old legacy application, and add new functionalities in order to fit rapidly growing business requirements. InterWorks’ developers from Microsoft practice in coordination with the client implemented a new solution with new functionalities resulting in elastic and effective distributed application.

**Challenge**

The biggest challenge was migrating old and implementing new functionalities in a short period of time. Other challenges that we faced were:

- Data consistency between different subsystems
- Distributed application
- Atomic transactions
- Documentation
- Application logging and monitoring
- High scalability while allowing its vertical subsystems to scale autonomously
- Deploy in multiple infrastructure environments
- Long term evolution and ever changing business rules
Solution

- Choosing micro service-based solution made it possible to scale out individual areas of the application more efficiently with regard to resources used.
- Using AWS lambda we were able to deploy in multiple environments, and easily analyze application logs.
- With MassTransit and RabbitMQ as messaging broker transport, we have implemented event-based communication between distributed services.
- Using Saga pattern for distributed transactions to maintain data consistency and atomicity
- Choosing Redis as high-performing cache system we were able to manage session cache persistence and ensure atomic operations
- Using Swagger we created solid API explorer and proper documentation with ability to automatically update.

Benefits and Results

- Successful migration from legacy application to micro-services.
- Improved fault isolation and created an application which is mostly unaffected by the failure of single module
- Eliminated vendor and technology locks-in
- Easy integration and automatic deployment
- Built a system elastic enough to handle peak without negatively affecting experience.

About InterWorks: InterWorks is an IT consulting company with a mission to Create Outstanding Value for its Customers and Empower them to Outsmart their Competition. We focus on integration solutions using MuleSoft, SnapLogic, TIBCO, AWS cloud, Microsoft technologies and also provide outstanding QA testing, Project and Process management and DevOps services. We are here to help with the best productivity tools on the market.