T-Mobile USA, Inc.

T-Mobile needs an agile network to deliver innovative, reliable products and services to over 300 million Americans. To accomplish this goal, T-Mobile relies on Micro Focus® products to ensure end-to-end reliability and control of its architecture, design, and performance processes.

Overview
T-Mobile is a provider of wireless voice, messaging, and data services, including the nation’s fastest 4G LTE network, which reaches 302 million Americans. Based in Bellevue, Washington, T-Mobile provides services through its subsidiaries and operates its flagship brands, T-Mobile and MetroPCS. T-Mobile serves approximately 61 million wireless customers and reported $37.2 billion in revenue in 2016.

Challenge
To grow its business, T-Mobile pursues a strategy of continuous product and service innovation that requires almost daily releases of new applications or new functionality in existing applications. In 2014, the Systems Architecture and Performance Engineering (SAPE) team was formed to review the T-Mobile systems architecture and design and to conduct testing to certify that applications meet performance, reliability, and scalability requirements. The focus of T-Mobile’s Enterprise IT is to bring DevOps into action. As part of this, the SAPE team started Continuous Integration and Continuous Engineering (CICE) to align with frequent code updates.

Solution
Unlike traditional IT organizations with separate architecture, design, and performance testing teams, the SAPE group assumes end-to-end responsibility for these processes. The group handles all performance issues, configuration changes, code changes, capacity increases, and horizontal or vertical scaling with the aid of Micro Focus solutions. Micro Focus Application Lifecycle Management (ALM) enables application delivery management. Micro Focus Cloud Services Automation (CSA) provides cloud orchestration. Micro Focus Service Virtualization enables end-to-end component tuning. Micro Focus Network Virtualization enables T-Mobile to simulate network latencies in different parts of the United States from the company’s Seattle data center. By leveraging Micro Focus solutions to provide frequent application deployments and ensure system stability, the T-Mobile SAPE team delivers competitive agility to the business.

In addition, T-Mobile uses Micro Focus Software Services to implement and maintain its Micro Focus software and to train IT staff. The Micro Focus team’s in-depth solution knowledge, combined with its best-practices expertise,

At a Glance
■ Industry
Telecommunications
■ Location
United States
■ Challenge
Release new products or functionality for existing products daily while maintaining standards for innovation and reliability.
■ Products and Services
Application Lifecycle Management Performance Center LoadRunner Services Virtualization Network Virtualization Software Services
■ Results
+ Continued to lead the market with continuous, rapid delivery of product and service innovations
+ Empowered DevOps with performance engineering solutions and lifecycle virtualization solutions
+ Delivered business agility through continuous testing, integration, and engineering
+ Deployed new or existing applications with code changes on an almost daily basis
ensures that T-Mobile maximizes the performance and value of its software investments.

**Results**
Micro Focus performance engineering tools help validate the functionality and performance of the micro services being developed as part of the DevOps.

Using Micro Focus solutions, T-Mobile USA has:

- Continued to lead the market with continuous, rapid delivery of product and service innovations
- Empowered DevOps with performance engineering tools and lifecycle virtualization solutions, such as network and service virtualization, resulting in:
  - Reduced application development and design lifecycle time
  - Virtualized services to identify code/config/network bottlenecks in early stages of development
  - Continuous development, integration, engineering
  - Automated test execution, reuse of test scripts, and the establishment of baseline performance metrics
  - Application delivery and monitoring of real user experience
  - The creation of design iterations and the ability to predict future application behavior

- Delivered business agility through continuous testing, integration, and engineering
- Deployed new or existing applications with code changes on an almost daily basis
- Reduced time to certify applications by 30%
- Reduced performance issues released into production by 95%
- Improved application quality by 40%
- Increased system availability to 99.98%

Learn more at https://software.microfocus.com/en-us/solutions/performance-testing