DevOps Site Reliability Engineer Service

Mastech InfoTrellis offers several Managed Services solutions as part of its Data Management family of offerings to operate and manage complex technology solutions in the Cloud or on-premise.

DevOps: Professional Services

Mastech InfoTrellis specializes in Site Reliability Engineers. We integrate complex systems with automation tools that will make your organization more efficient. Our resources ensure version updates are done timely while maintaining security standards for compliance. Our resources are available on-demand for a duration that works for you. Give us a call today so we can scope your project, determine your deliverables and time frame for implementation.
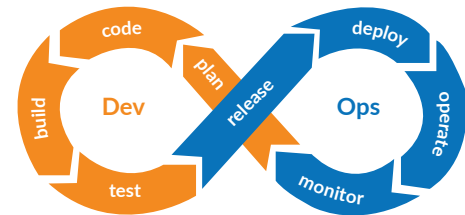
What is an SRE, and how are they related to DevOps?

Site Reliability Engineering (SRE) is a discipline that incorporates aspects of software engineering and applies them to infrastructure and operations problems. The main goal is to create scalable and highly reliable software systems. MIT SRE's are focused on the system engineer role of core infrastructure.

At its core, Site Reliability Engineering is an implementation of the DevOps paradigm. There are a wide array of ways to define DevOps. The traditional model, where the development ("dev") and operations ("ops") teams were separated, led to the team that writes the code not being responsible for how it works when customers start using it. This usually leads to a significant amount of dysfunction. The goals of the dev and ops teams are constantly at odds—a developer wants customers to use the "latest and greatest" piece of code, but the operations team wants a steady system with as little change as possible. Their premise is that any change can introduce instability, while a system with no changes should continue to behave in the same manner. (Noting that minimizing change on the software side is not the only factor in preventing instability is essential. For example, if your web application stays exactly the same, but the number of customers grows by 10x, your application may break in many different ways.)

Development combined with Operations

The premise of DevOps is that by merging these two distinct jobs into one, you eliminate contention. If the "dev" wants to deploy new code all the time, they have to deal with any fallout the new code creates. Asking them to understand the infrastructure, including how to deploy, configure, and monitor their service, maybe asking a little too much from them. The need for an SRE comes about when a team implementing DevOps realizes they are asking too much of the developers and need a specialist for what the ops team used to handle.

SLAs
Service Level Agreements are the commitment/agreement you make with your customers.
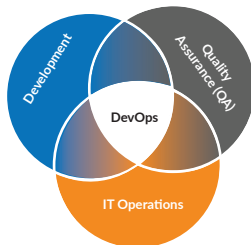
SLOs
Service Level Objectives are goals that need to be met in order to meet SLAs.

SLIs
Service Level Indicators measure compliance/conformance with an SLO.

Providing baseline comparison coverage can be difficult SRE-wise. The first steps of establishing an SRE organization are managing SLA/SLO/SLI and creating proper baselines to determine what is normal.

The SRE understands all the quirks of the application. Companies use a wide variety of SaaS products to power their infrastructure. Metrics systems, site monitoring, log analysis, containers, and more are added to the infrastructure platform itself. While these technologies solve some problems, they create an additional complexity.

It is essential for the developers to understand all those technologies and services in addition to the core technologies (e.g., languages) the application uses. Staying on top of all of that technology is usually overwhelming! Do not be overwhelmed, MIT can handle all the complexities of your initiatives. Let our Site Reliability Engineers simplify your projects. Call us today to discuss how we can integrate your systems and take your automation to another level.

Get in touch

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