

## Growing Impact in Security Guidance Preparation

In a joint effort with the [VMware Corporation](#), MITRE Engenuity is encouraging innovation for the public good by simplifying security guidance development.

Modern software deploys new technologies at an increasingly rapid rate. Traditional practices for creating security guidance for software often cannot keep up with the pace. Software vendors need to ensure that a lack of security guidance does not interfere with the pace of innovation. To solve this problem, MITRE Engenuity engaged with the MITRE [Security Automation Framework© \(SAF\)](#) team and VMware to develop an application that expedites the preparation of security guidance.

The MITRE SAF© is a collection of applications, techniques, libraries, and tools provided to the security community open-source and free of charge by MITRE. This application, called [Vulcan](#), is SAF's newest component and has already been shown to save hundreds of manual labor hours previously required to develop security guidance. VMware's deep experience with developing robust security guidance for its software offerings proved invaluable in shaping the application into a powerful tool for documentation development and maintenance.

### How it works

This new application can perform both change management and revision control of a security guidance document project. Traditional approaches to this process often required security SMEs to spend extensive time managing Excel spreadsheets with little control over editing workflows and no built-in ability to peer-review each other's work. Vulcan does to security guidance development what a version-control tool like Git does for software code; an application centered around change management and peer review makes the process faster, easier, and less prone to human error.

The process workflow consists of synthesizing high-level requirements, vendor best practices, and government standards into detailed instructions for specific systems. Intuitive operations allow multiple users to participate as authors for security guidance for a software component. Users can have specific project roles, such as author (who may write drafts of security controls) or reviewer (who may approve and finalize those controls), as well as separate accounts for individual projects.

MITRE SAF© and VMware originally created the [Vulcan application](#) to support the use case of Secure Technical Implementation Guide (STIG) development. As such, it allows authors to import Security Requirements Guides (SRGs) to serve as high-level requirements that can be tailored to a specific software component. When the project team has finished developing their STIG-ready content, they can export their work product as CSV or XCCDF files, which can be provided to the Defense Information Systems Agency (DISA) for peer review before being formalized as STIGs.

Watch the joint [MITRE/VMWare Explore 2022 conference presentation](#), that showcases how Vulcan is helping VMWare integrate, automate, and operationalize their customers' government security requirements.

VMWare and MITRE also posted a joint [webinar](#) showcasing Vulcan and the development of STIG-ready content that MITRE is developing for Red Hat's [Keycloak SSO application](#) for the Department of Defense.

## Next steps

It is time for widespread use and feedback from the security community! We know that once a STIG is formalized, it becomes the standard for security for that software component within the U.S. Department of Defense. But if a project team does not wish to undergo the formal STIG review process, they can still use Vulcan-created STIG-ready content as a baseline for securing their system (while keeping their baseline tightly bound to a high-level SRG). We hope that more vendors and security teams can create public good and support the overall security community by building STIG-ready content at the speed of DevOps!

MITRE Engenuity wants to define and implement more features, engage with vendors and content creators or maintainers, and support ongoing development. Check out Vulcan's [project roadmap](#) if you're curious where we're going next.

The MITRE SAF© team is happy to accept questions about any of the topics discussed in the webinar or feature requests at [saf@groups.mitre.org](mailto:saf@groups.mitre.org) and the MITRE SAF©'s tools, libraries, and applications are all on GitHub.