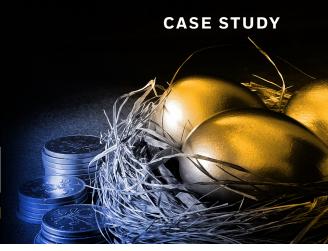# Charles Schwab transforms threat modeling with
AUTOMATION

Overview

Investment services leader Charles Schwab Corporation offers brokerage, banking, and financial advisory services.

Through its subsidiaries, including Charles Schwab & Co., Inc. and Charles Schwab Bank, the firm delivers a wide range of investment products and banking services designed to meet the diverse needs of its clients.

The company is dedicated to a client-centric approach, prioritizing the security of client information by continuously updating its technology, training personnel, and refining protocols to protect against emerging threats.

Initial challenges

- **7-Step process**—Conducted during the design phase and updated with architectural changes.

- **Support needed**—Solutions Architects require extensive support and hand-holding from the security team.

- **Frameworks used**—Utilizing STRIDE to identify threats and DREAD to score risks.

- **Inefficiency**—The process is laborious and repetitive, especially for more complex applications.

Solution

ThreatModeler is an automated threat modeling platform that Charles Schwab chose to alleviate the current challenges and roll out a scalable comprehensive automated Threat Modeling Practice to increase security posture of applications, platforms, and infrastructure. The move had their Architects and Developer Community independently drive threat modeling, ensuring that security requirements were baked into every software release.

Charles Schwab was following a manual threat modeling process. The process was slow, repetitive, and highly dependent on the security team and, hence, did not integrate with their agile development practices. This also required Solution Architects to be dependent on security teams' expertise for identifying threats and security requirements.

- **Manual process**—Resource-intensive and repetitive manual threat modeling.

- **Security team dependency**—Heavy dependency on the security team to threat model.

- **Agile integration issues**—Cumbersome to incorporate threat modeling into the agile development cycle.

- **Challenges in shifting left**—Inability to scale and keep up with the demands of a shift-left approach to security.

> *The ThreatModeler platform provides security teams with an extensive library of components and allows codifying custom threats and security requirements in the Threat Framework. Now, all our Solution Architects can use the drag-and-drop user interface to threat model and automatically get the same benefits of having a Security Architect by their side to point out solution-specific threats and security requirements.*
>
> **Johnson Michael**
> Director of Enterprise Security Architecture

50%
reduction in effort

10X
improvement in model production

Uniform threat modeling across apps and platforms

Integrated threat modeling directly into development lifecycles

Impact and results

The main focus for Charles Schwab was to make threat modeling painless for the Solutions Architects and to get widespread adoption within the Architects Community. ThreatModeler helped accomplish this through the following:

Shift-left security

- Integrated threat modeling into development life cycle.
- Security requirements specific to solutions are added into backlog.

Scaling threat modeling practice

- Threat modeling performed at scale and by Architects with first-hand information about the solution.
- Increased efficiency in threat modeling with custom reusable components.

Improved oversight

- Approval workflow to confirm accuracy of threat model.
- Integrated with organization's governance processes.

Financial impact

- **Financial benefits**—Automated threat modeling reduced the time of spent by Solution Architects and Security Architects helping them invest on other priorities. A risk-based approach to scope applications for threat modeling helped prioritize effort on higher risk applications.

- **Lower remediation costs**—The reduction of rework and associated remediation costs by identifying and treating threats at the design phase was minimized.

- **Improved compliance**—The platform ensured the uniform application of security requirements in projects and strengthened adherence to security standards.

Streamline your threat modeling process.

CONTACT US

ThreatModeler®