Do Not Build Your Own Security Controls

Reinventing the wheel when it comes to developing security controls for every web application or web service leads to wasted time and massive security holes. The OWASP Enterprise Security API (ESAPI) Toolkits help software developers guard against security-related design and implementation flaws. The ESAPI Toolkit architecture is very simple – a collection of classes that encapsulate the key security operations most applications need. ESAPI is designed to make it easy to retrofit security into existing applications, as well as providing a solid foundation for new development. ESAPI comes with an ESAPI filter that minimizes the changes required to your base application.

ESAPI Toolkits are designed and implemented to guard against the risks described in the OWASP Top Ten, and to meet the requirements of the OWASP Application Security Verification Standard (ASVS).

Web Applications and Services Can Be ES-Enabled, Just as They Can be PK-Enabled

Just as web applications and web services can be Public Key Infrastructure (PKI) enabled (PK-enabled) to perform for example certificate-based authentication, applications and services can be OWASP ESAPI-enabled (ES-enabled) to enable applications and services to protect themselves from attackers.

OWASP ESAPI Toolkits empower web application and web service developers with the ability to increase the overall degree of trust that can be placed in their applications and services. ESAPI Toolkit security controls operate using a deny-by-default strategy, performing security checks using white lists.

OWASP ESAPI Toolkits provide the same basic interfaces (including common logging interfaces) across common platforms, including Java EE, .NET, and PHP.

What's in an OWASP ESAPI Toolkit ?

OWASP ESAPI Toolkits are not frameworks! ESAPI Toolkits are collections of security controls such as input validation security controls. ESAPI Toolkits provide common sets of interfaces for security controls including:

- Authentication
- Access Control
- Input Validation
- Output Encoding/Escaping
- Cryptography
- Error Handling and Logging
- Data Protection
- Communication Security
- HTTP Security
- Security Configuration

OWASP ESAPI Toolkit interfaces only include methods that are widely useful and focus on the most risky areas. Interfaces are designed to be simple to understand and use.

Project Sponsors

The OWASP ESAPI project is sponsored by:

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