The Universal Translator

New Technologies, New Challenges

New technologies developed for building web applications have made it possible to create more interactive, responsive, and integrated experiences for users. Although these new technologies have benefited end users, they have also made it harder for DAST tools to see and cover all areas of an application and its web services, causing headaches for security professionals. The less you see, the more likely you are to miss a vulnerability.

The Universal Translator brings flexibility to Rapid7’s dynamic application security testing (DAST) solution, InsightAppSec*, and maximizes its test coverage of the modern frameworks and technologies leveraged by today (and tomorrow’s) web apps.

A bridge that leads to better application coverage

In the face of constantly evolving web technologies, our engineers have responded to the growing challenge of dynamically testing applications with the Universal Translator. The Universal Translator acts as a bridge between the two key functions of every DAST: discovery of the areas in an application where vulnerabilities can be exploited, and attack through the testing of those areas with inputs that may expose security gaps.

The Universal Translator increases the flexibility of our DAST tools by decoupling the discovery and attack engines so that all attackable inputs identified by the discovery engine are translated and normalized into a common universal format that is then understood by the attack engine; this makes it possible for the same set of attacks to be applied to multiple input and data format types. What does this mean for you? This departure from just your standard crawling expands your application coverage area and enables Rapid7 DAST engineers to quickly add support for future web technologies and emerging attack types.

*All mentions of the Universal Translator capability in Rapid7 InsightAppSec also apply to Rapid7 AppSpider.
Cover modern apps with more than just crawling

DAST tools don’t require source code to security test an application because they are able to crawl running apps and simulate attacks as hackers would to test for the presence of vulnerabilities. Crawling alone works for older web technologies like HTML and Javascript, but it simply isn’t enough to cover modern apps and their APIs.

InsightAppSec maximizes coverage of the following technologies, in addition to crawling:

- Automated testing scripts (e.g. Selenium)
- API definitions (e.g. Swagger)
- Macros (i.e. recorded interactions with an application)
- Traffic recordings (e.g. proxy server logs, Burp Suite logs)

The Universal Translator consumes information from these sources and the output from the crawler to normalize the data into a common format that can then be security tested with over 95 attack modules.

Be prepared for what comes next

As new web technologies and new formats for exchanging data across the web become available, the Universal Translator dramatically reduces the time and effort required by Rapid7 experts to mobilize. Our engineers can add discovery support for new web technologies without having to alter the existing attack engine or attack modules, meaning you aren’t left with a sudden and unsolvable lack of visibility into your application security risk.

New attack modules released by Rapid7 or custom attacks created by users can also take advantage of the data processed by the discovery engine and the Universal Translator; the discovery and attack functions of Rapid7’s DAST solutions will continuously improve as the Universal Translator is utilized. Our take? The Universal Translator is the ultimate utility belt for security and development teams.

About Rapid7

Rapid7 (Nasdaq: RPD) is advancing security with visibility, analytics, and automation delivered through our Insight cloud. Our solutions simplify the complex, allowing security teams to work more effectively with IT and development to reduce vulnerabilities, monitor for malicious behavior, investigate and shut down attacks, and automate routine tasks. Customers around the globe rely on Rapid7 technology, services, and research to improve security outcomes and securely advance their organizations.

To learn more about Rapid7 or get involved in our threat research, visit www.rapid7.com.

Get Started

See the Universal Translator in action with a 30-day free trial.

www.rapid7.com/try/insightappsec