

## PENETRATION TEST

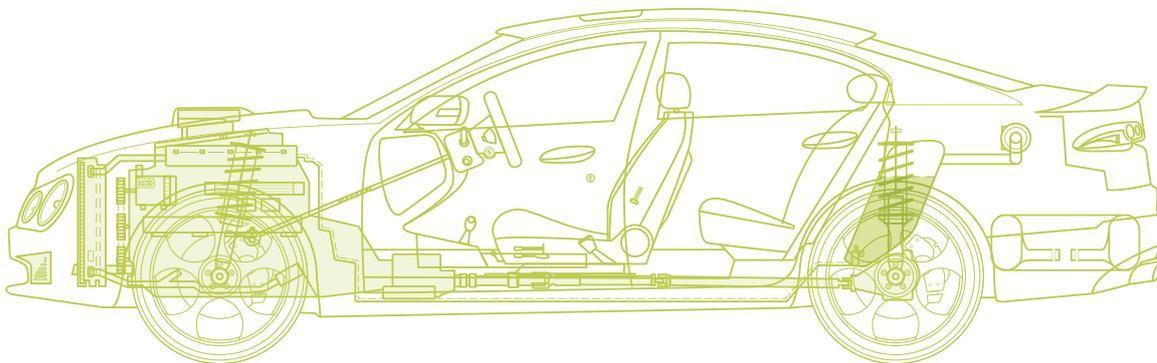
Cost-effectively uncovering vulnerabilities

Penetration testing is an important part of cyber risk management. By highlighting what real-world “bad guys” might find if they target an automotive system, “pen” testing gives OEMs and tier ones a view of their security health in an actual operational context. But not all pen tests are alike.

Irdeto offers whitebox pen testing. With access to the architecture, design and source code, Irdeto’s team identifies security holes in much less time than teams using blackbox testing, taking weeks rather than months. More crucially, the results are comprehensive, pointing out all security holes, not just what can be found in a specified timeframe. It has numerous additional advantages:

- Straightforward, actionable mitigation strategies.
- Faster validation when applied to subsystems.
- Traceability within larger requirements hierarchies.
- Automotive-standard requirements language.
- Resulting systems that are cleaner, more bullet-proof.

When combined with Irdeto’s Architecture Review, Irdeto Penetration Test is a powerful tool to ensure automotive-grade products are highly secure.



### COMPLETE AND COST-EFFECTIVE RESULTS

Irdeto Penetration Test employs a whitebox approach for a deep and thorough testing of system vulnerabilities that maximizes the effectiveness of testing time. Because it harnesses the knowledge of system internals, it extends the testing area where blackbox approaches cannot reach. While blackbox testing may simulate a realistic scenario, it takes more time to do a less thorough job, costs significantly more, and can result in a false sense of security.

### ACTIONABLE RECOMMENDATIONS

A combined team of engineers and hackers that understand both proper design and security weaknesses performs the Irdeto Penetration Test. Reporting includes detailed information on perceived threats, tested threats, success rates, as well as mitigation strategies that are tailored to automotive software implementation. Fixes are cleaner and more effective thanks to visibility of the code base.

### UNIT-TEST ADVANTAGES

Irdeto Penetration Test can be done at any point in the software lifecycle – from requirements development through to validation – creating a security unit test with unique advantages. When performed on subsystems as they are completed and/or before integration, our whitebox pen test helps OEMs determine security requirements for individual components, creates standardized mechanisms for OEM and tier ones to communicate, specify and validate requirements, and speeds up the validation process.

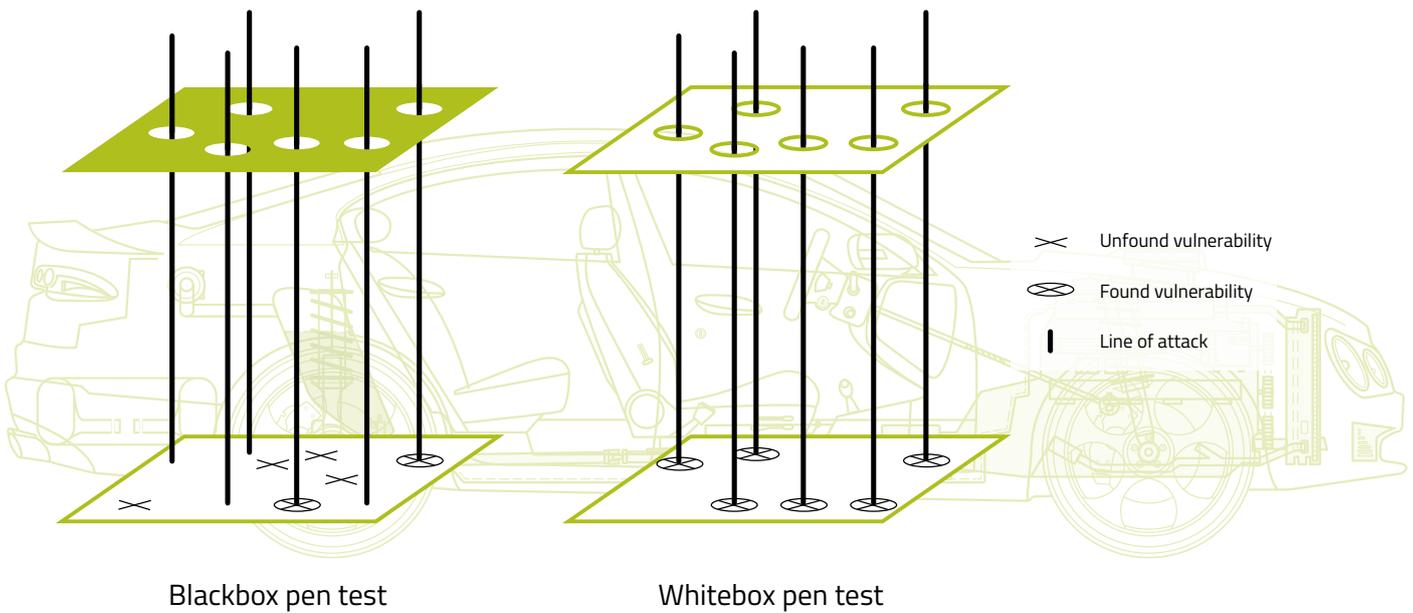


Figure 1: The Irdeto whitebox approach to pen testing with its visibility into system internals identifies a much more complete set of vulnerabilities.

Irdeto Cloakware for Automotive is a comprehensive solution that combines innovative, patented technologies and cybercrime services to address a variety of security challenges in a car. It provides automakers and tier-one suppliers with a secure, tamper-proof environment for vehicle software that is virtually impossible to reverse engineer. For more information, please refer to the datasheets for the solution components at [irdeto.com](http://irdeto.com)