



## » SERVICES



THE QUEEN'S AWARDS  
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Category 'Best  
Security Company'

Application  
Vulnerability  
Assessment

## Application Vulnerability Assessment

Most organisations find that they must design, build and implement custom applications to meet their unique business demands. These applications commonly perform critical functions that could not be achieved through off-the-shelf solutions and must often be developed to exacting requirements (hence the increasing demands on in-house development teams to produce their work under ever tightening deadlines). Unfortunately, under pressure to deliver these solutions, organisations often find that security features take a backseat and can leave critical data exposed to today's newest threats.

Whether these custom applications have been developed in-house or commissioned through third-party agencies, the pressures of time constraints often result in the lax application of security best practices or robust data protection. The Application Vulnerability Assessment services offered by NGSConsulting provide clients with a thorough security analysis of their custom application installation and deployment.

By employing the expertise and experience of NGSConsulting to analyse the security of their custom applications, clients have received cutting-edge security advice. Our Application Assessment services focus upon the compiled and installed elements of the entire system. Attention is made to how the application components are deployed, communicate (or otherwise interact) with both the user and server environments.

Common critical areas of study during an Application Assessment include:

- » Application Resilience to buffer overflow attacks.
- » The existence of race conditions.
- » Exploitation of application component privileges and escalation.
- » The ability to bypass content checking processes.
- » Manipulation of client-side code.

By utilising a mix of proprietary software, best-of-breed third party assessment tools and a methodological approach to application vulnerability testing, NGSConsulting provides clients with a detailed threat assessment and remedial action plan.

### » Methodology

The NGSConsulting approach to Application Vulnerability Assessment is defined by a thorough methodological framework.

The following key aspects are included within this framework:

- » Detailed examination of external client-side, and internal server-side code for user and systems information.
- » Examination of authentication and authorisation processes and associated procedures.
- » Manipulation of client-side code to assess the validation and bounds checking routines effectiveness at protecting from both malicious and accidental input.
- » Manipulation of state-maintenance code such as session information, and cookies, in order to bypass critical security segregation.
- » Assessment of the threats to the integrity of data in transit, such as monitoring, modification or replay of the data.
- » Assessment of potential privilege escalations and data capturing / manipulation vulnerabilities - typically found through buffer overflows and race conditions.
- » Enumeration and detailed examination of application to application interactions between system components - where particular attention is paid to redirection and messaging components.
- » Review of application deployment based upon security best practice and current attack vectors employed in the wild.

### » Benefits

NGSConsulting offers a number of key benefits to potential clients. These include:

- » Identification of issues typically missed by more traditional assessments - NGSConsulting reviews the application for new / custom security issues in addition to publicised vulnerabilities.
- » Analysis of the impact of issues - NGSConsulting assesses all of the potential impacts for a vulnerability through the most probable attack vectors.
- » Quantification of likelihood - ease of access and availability of exploit code are taken into consideration by NGSConsulting when assessing the likelihood of a particular vulnerability being successfully exploited.



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### » Deliverables

During the Application Vulnerability Assessment process, NGSSoftware's Consultants are available to discuss any results that may have been formulated, as well as outlining the processes involved.

The key deliverables throughout the assessment consist of:

- » Immediate notification to our clients of any high-risk vulnerabilities as and when they are discovered.
- » Delivery of interim reports detailing testing completed and findings at the end of each working day.
- » Scheduled conferences at the beginning of each day to discuss issues identified in previous daily reporting.
- » Consultants will be available at any point during the assessment process to discuss any issues that may arise.
- » A Final Report encompassing all activities and findings during the course of the assessment. This report is split into several key sections:
  - » A Management Summary listing areas of weakness within the installed applications and their respective business impacts.
  - » An Assessment Overview detailing the scope and objectives of the project undertaken, and the methodology utilised by the Consultants.
  - » Technical Findings detailing any security vulnerabilities discovered during the testing process, and providing detailed explanations of all the security implications. Comprehensive remediation information will be supplied including alternatives should the preferable solution be impractical.
  - » Conclusions detailing managerial and technical recommendations to the client, with a view to mitigating short term risks, as well as long term strategic solutions.
  - » Exploit Code - Where applicable NGSConsulting will provide the unique service of providing clients with demonstration exploit code.
  - » Additional Recommendations - Where the client is unable to patch any affected products, or the costs of doing so is prohibitive, NGSConsulting will provide a range of recommendations to mitigate any vulnerabilities discovered during the testing process.
- » A presentation to technical or management staff follows the delivery of the final report.

### » Assessment Offer

If you feel that you are not receiving an adequate service from your existing security supplier, NGSConsulting would like to extend the opportunity of a no cost, no obligation 'mini-audit', provided under an NDA.

This allows our consultants to demonstrate their technical abilities and also allows future clients to assess the strengths and weaknesses of their existing suppliers.

For further details of this offer, contact [info@ngsconsulting.com](mailto:info@ngsconsulting.com)

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