Web App Testing Methodology & Web App Components

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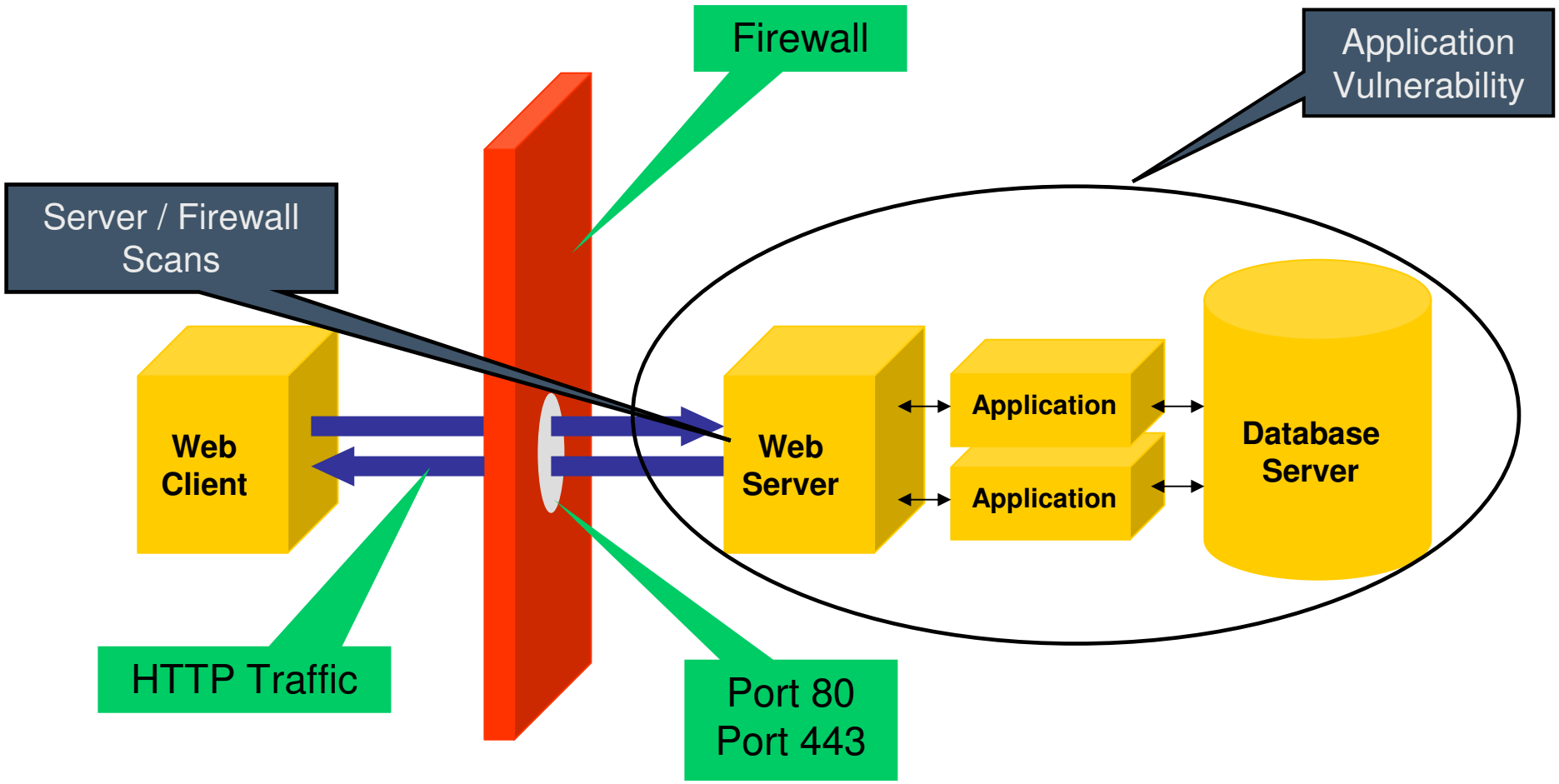
About The Presenter

Nish Bhalla, Founder, Security Compass

- OWASP, Toronto Chapter Leader
- Over 10 years industry experience
- “Buffer Overflow Attacks: Detect, Exploit & Prevent” and is a contributing author for “Windows XP Professional Security”, “HackNotes: Network Security” and “Hacking Exposed: Web Applications – 2nd”.
- Speaker : "Reverse Engineering Conference“ in Montreal, "HackInTheBox" in Malaysia and "ISC2 Security" Conference in Las Vegas, New York etc.
- Developer and Trainer of security courses at Security Compass and Foundstone.
- Brining field work done for various fortune 500 and large software houses into class rooms.

Web Architecture



Attacking Web Servers

- Web Server Scans
  - Full TCP / UDP Port Scans
  - Web Server Scans
    - Nikto (www.cirt.net)
    - Spike Web Proxy (www.immunitysec.com)
    - Stealth Scanner (www.nstalker.com) Free / Commercial
  - SSL Version (40/56/128 Bit)
  - Administrator Port
  - Reverse Proxy
  - Internal IP
  - Internal Port
  - Internal Server Name
  - Load Balancer

Attacking Web Applications

- Web Application: Background Information on the site
  - Identify Technologies used and Application Architecture
  - Mirror site
  - Sift through client side code (review comments and client side code)
  - Authenticate to the site and browse the site
  - Document all the links and pages on the site
- Web Applications: Threat Analysis

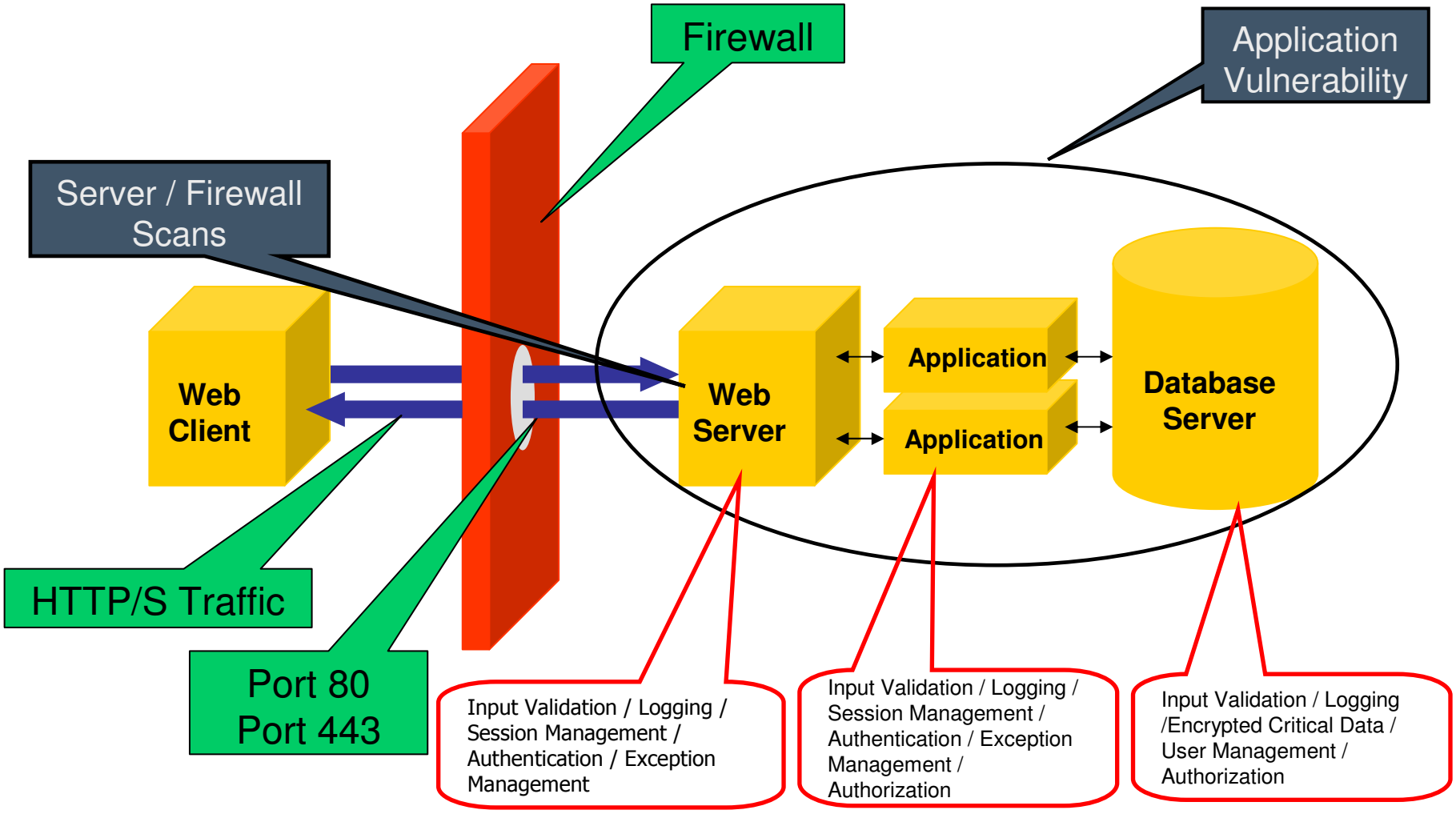
Attacking Web Applications Contd.

- Web Application: Begin Testing of the Web Application
  - Configuration Management (Web Server)
  - Backup Files (.bak /.inc/.gz /.zip)
  - Authentication (Type of Authentication / Preventing Brute Force)
  - Authorization (ACLs on Files / ACLs on Data / Cookies)
  - Session / Cookie Management
  - Input Validation (XSS/SQL Injection/ Field Overflows/Field Underflow)
  - Hiddent Tags / Hidden Cookie variables / Hidden Pages
  - File Upload (File Type / Location of upload)
  - Buffer Overflows (ISAPI/Modules)
  - Cryptography
  - Sensitive Data
- Web Application: Search Engine Hacking
  - groups.google.com
  - yahoo.com
  - archive.org

Attacking Web Applications Contd.

- Authentication
- Authorization
- Session Management
- User Management
- Cryptography, PII, Critical Data
- Data Validation
- Data Handling
- Error & Exception
- Event Logging

Architecture Map



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