



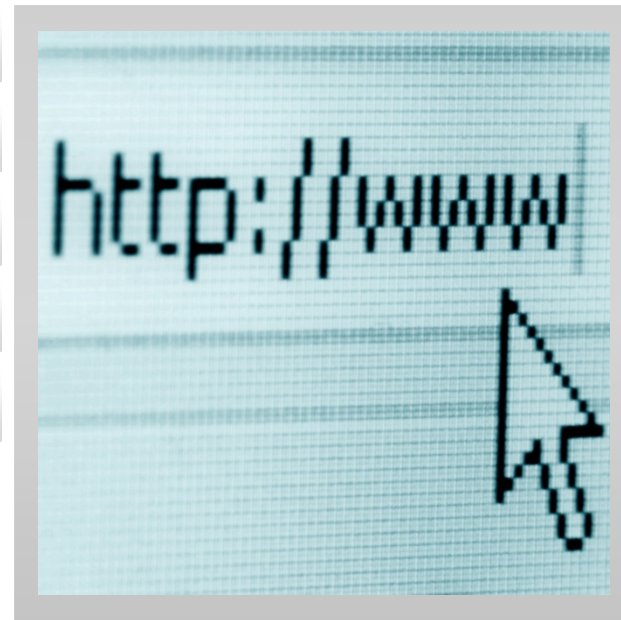
# Take Control of Your Web Applications Before Others

網站安全 – 先發制人、後發制於人

# Agenda



- 1 What is happening in the Internet?
- 2 How do we tackle these threats?
- 3 Points to be noted in Vulnerability Scan
- 4 Some useful tools in Vulnerability Scan
- 5 Q&A



# What is happening in the Internet?



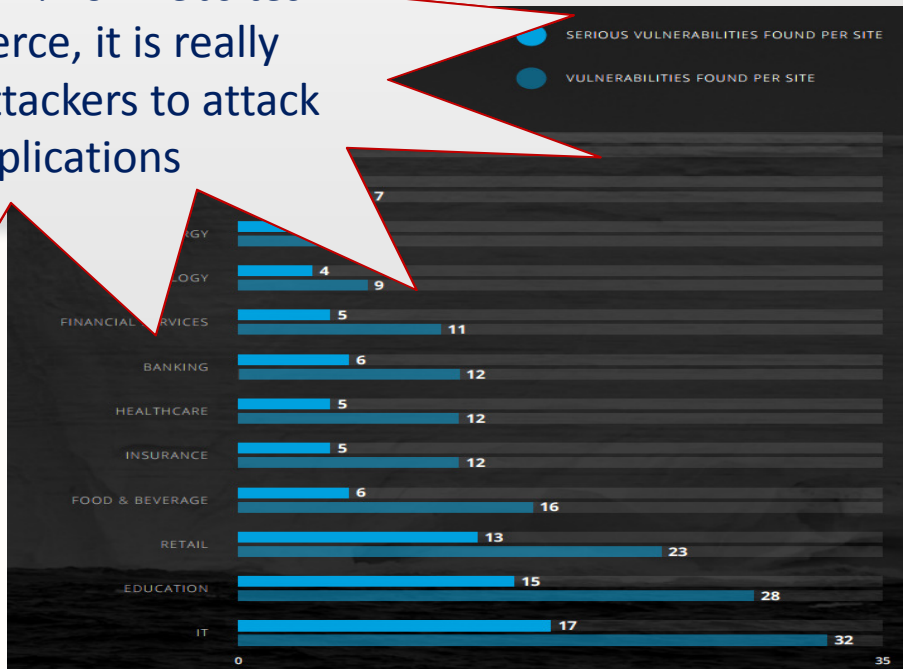
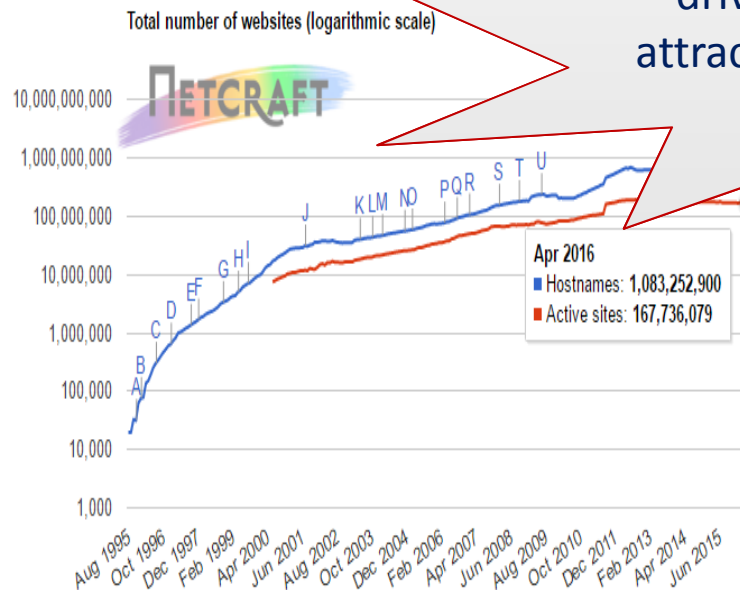
*“As of Apr 2016, it is estimated that there 1,083,252,900 websites on the Internet today.”*

Netcraft Web

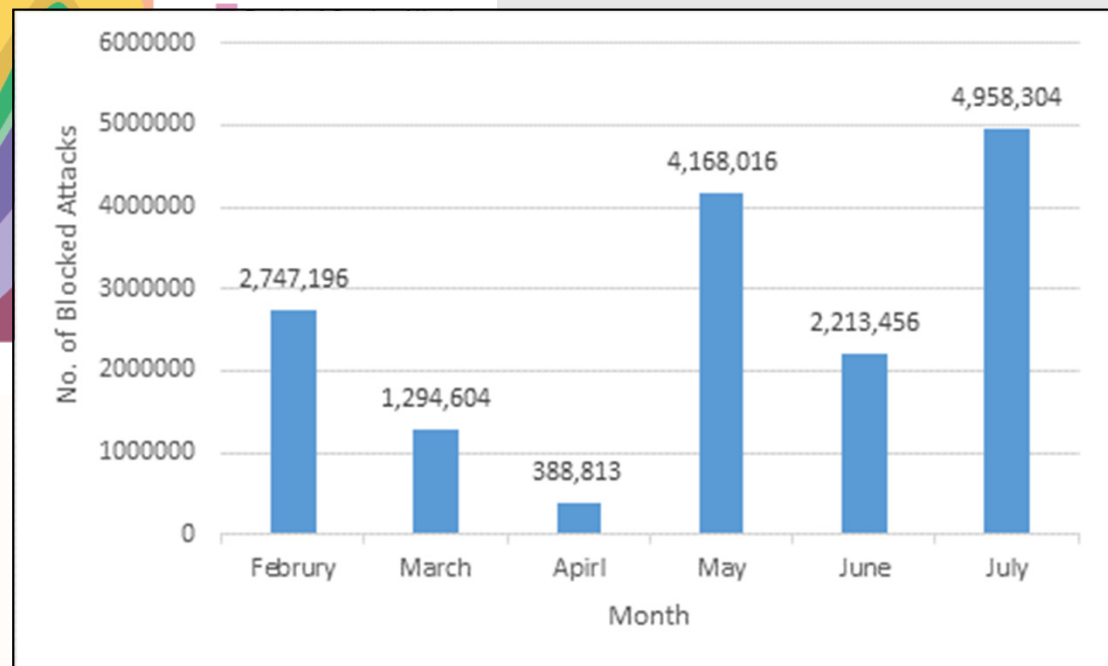
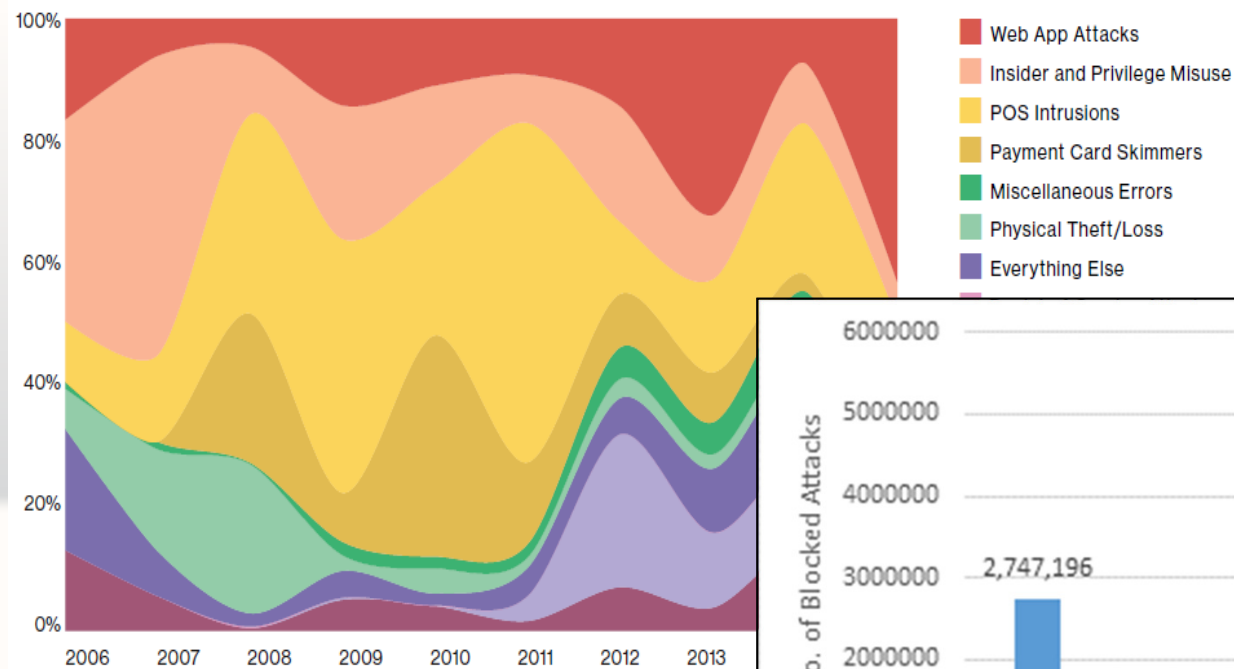
*“Average vulnerabilities per site varies from 5 (in Manufacturing) to 32 (in IT).”*

Website Security Statistic Report, 2016

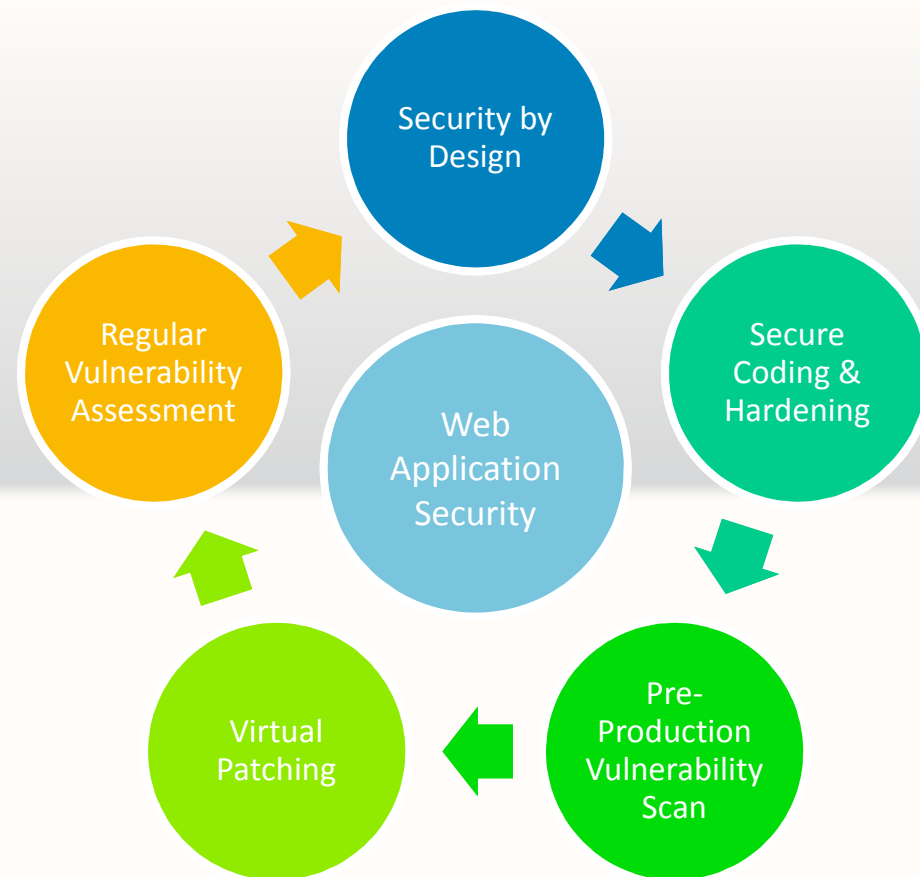
Assuming just 1% of websites drive commerce, it is really attractive to attackers to attack web applications



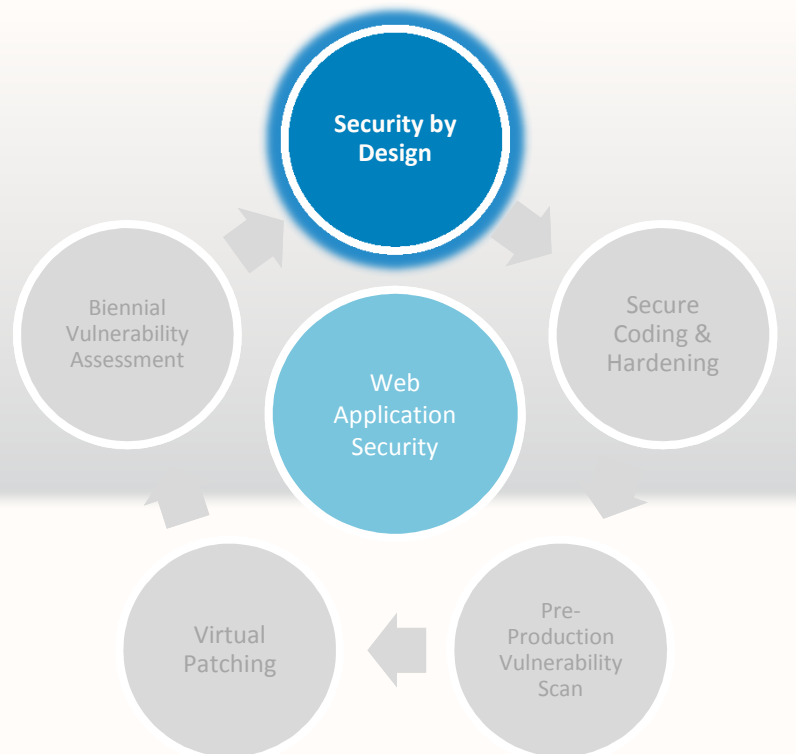
# What is happening in the Internet?



# How do we tackle this threat?



# Security by Design



INFORMATION TECHNOLOGY SERVICES OFFICE  
WEB APPLICATION SECURITY STANDARDS

[S-6]  
VERSION 1.0

Security requirements on web application developments are developed for user departments' reference.

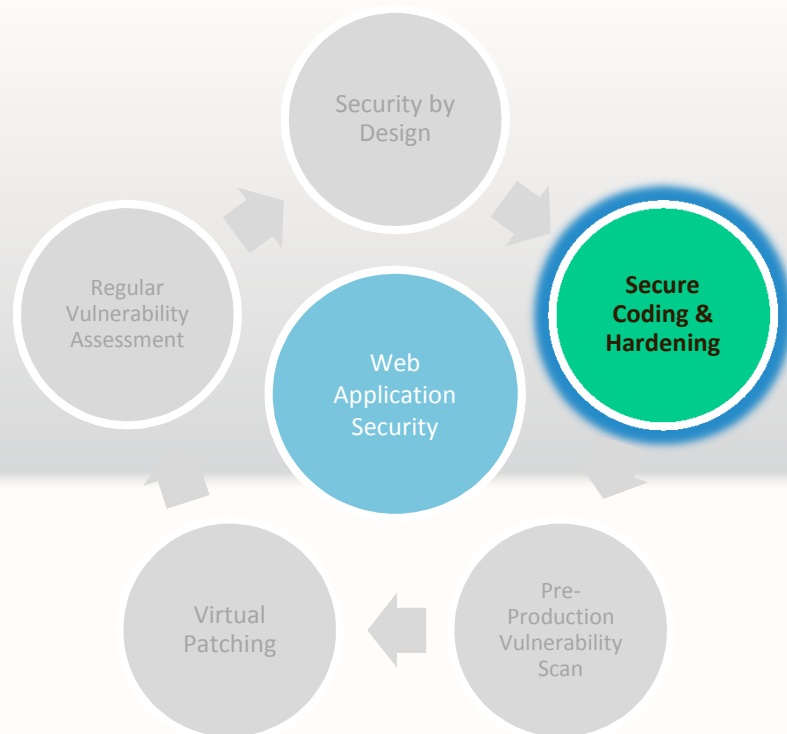


**GUIDANCE NOTES FOR SPECIFYING  
SECURITY CONTROLS IN THIRD PARTY  
AGREEMENT FOR INFORMATION  
TECHNOLOGY RELATED SERVICES**

VERSION 1.0

Sample tender specifications are provided for reference.

# Secure Coding and Hardening



Secure Coding Guidelines  
for Web Application & Mobile  
App Development



## Minimum Security Baseline

Microsoft IIS 8.5  
Web Server

Version 1.0



## Minimum Security Baseline

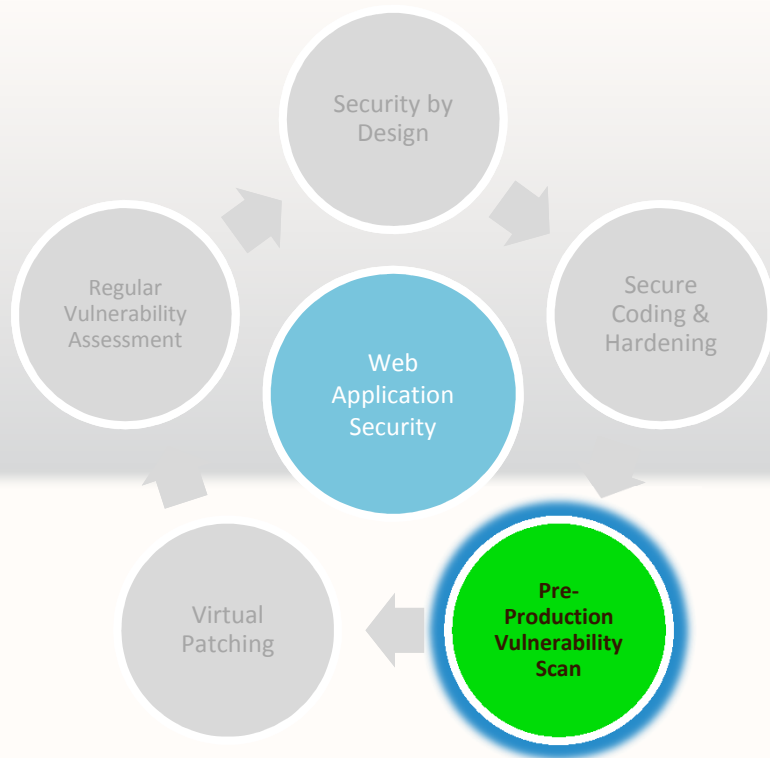
Apache HTTP Server 2.2

Version 1.1

Secure Coding Practices  
are provided to developers.  
Pseudo Codes are included.

Security Hardening  
Configuration Standards  
are developed for various  
web server platform.

# Pre-Production Vulnerability Scan



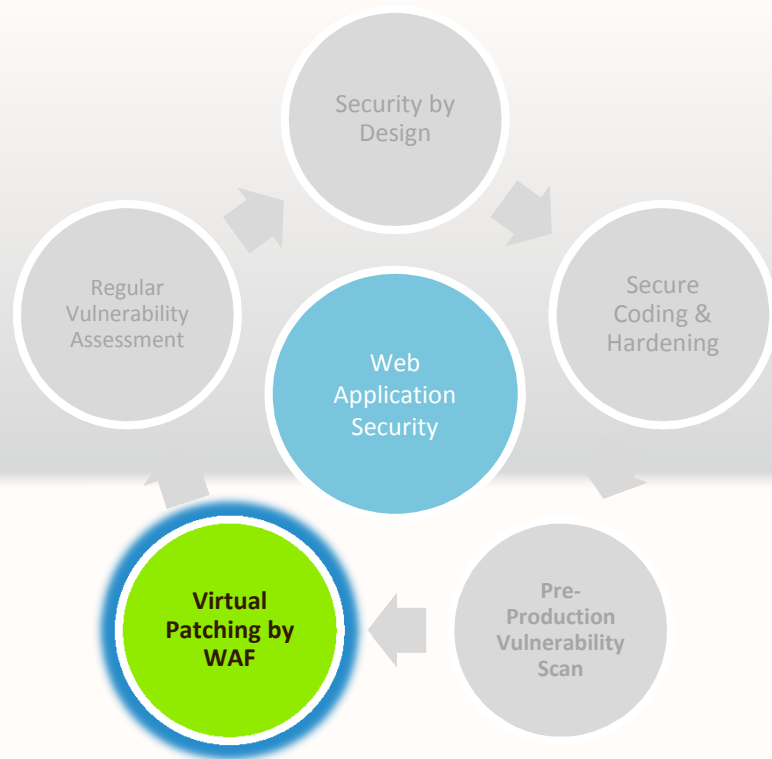
**Pre-Production Vulnerability Scan is the cornerstone of our web application security strategy**

**All web applications / websites need to pass through vulnerability scan before production**

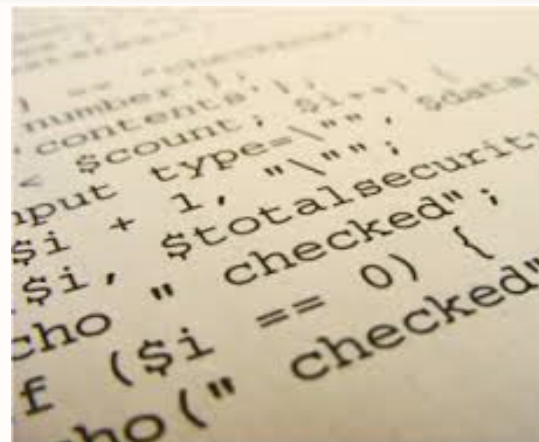
**It is a credential / authenticated scan**



# Virtual Patching

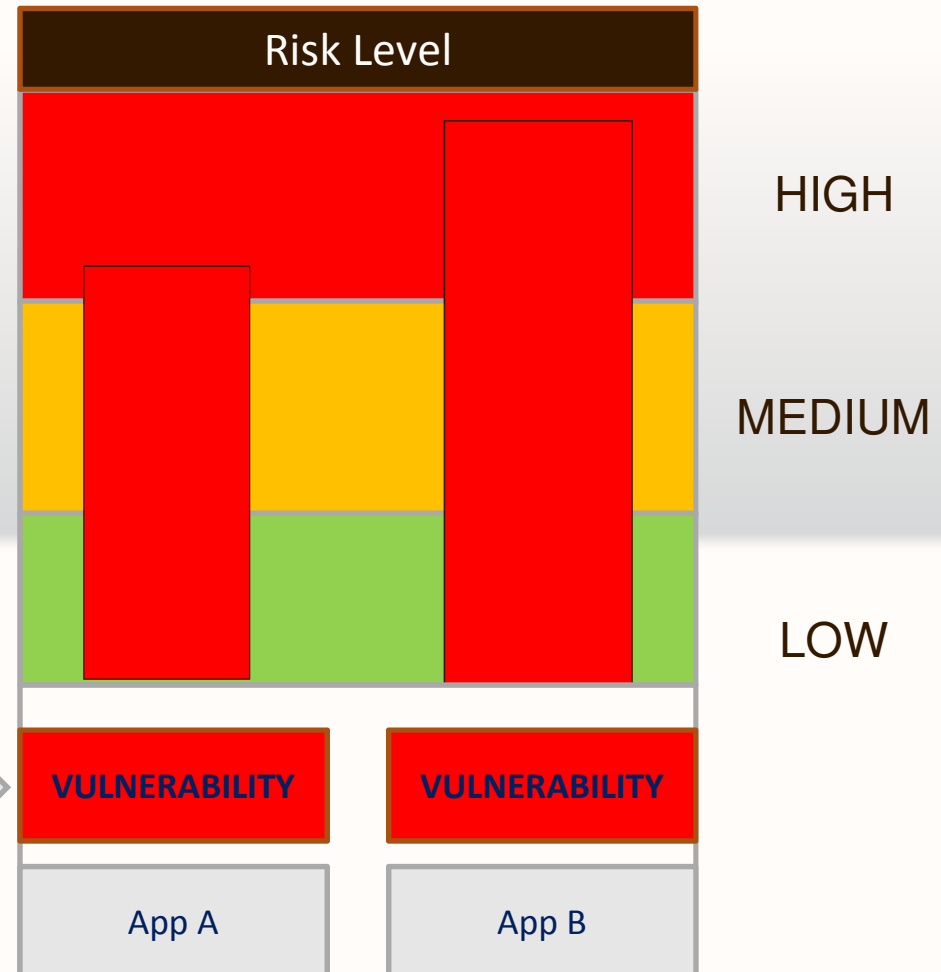
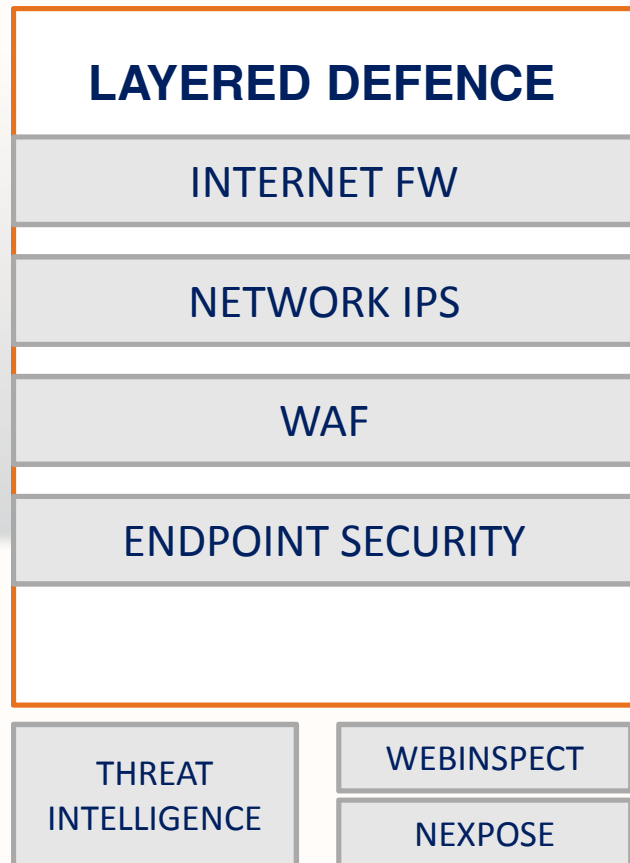


Application  
Web CMS  
Database  
System

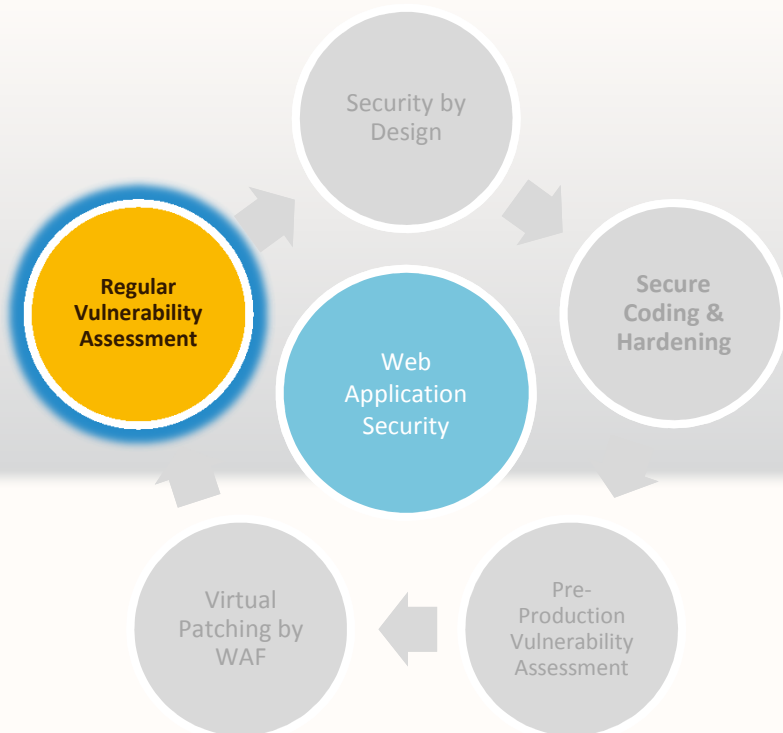


No input  
validation  
Insecure  
Output  
Handling

# Virtual Patching



# Regular Vulnerability Assessment



- Pre-Production Scan can only provide a snapshot. A regular vulnerability assessment is required in accordance with our security policy.
- Black Box Web Application Vulnerability Scanning from external IP addresses
  - Understand security state of an application from the outside looking in.
  - Will not exempt scanners' IP addresses on any security products like IPS / WAFs
  - No system / application credential is required

# Points to be noted in Vulnerability Scan



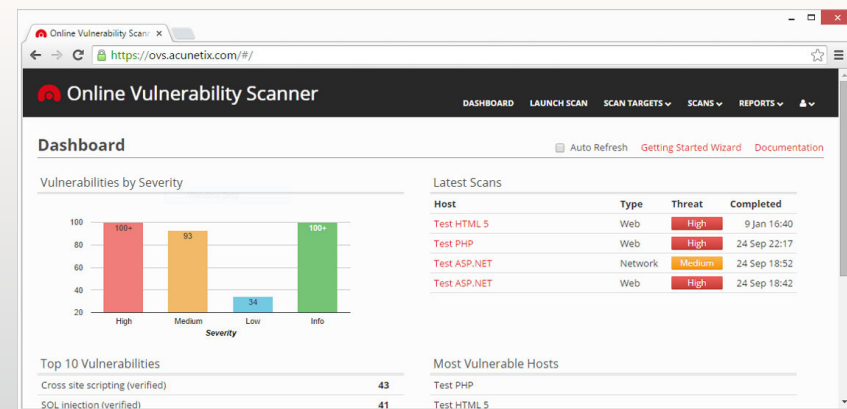
# Some Useful Tools



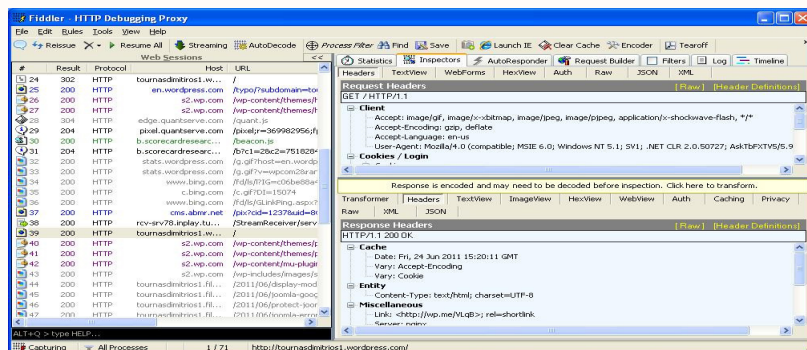
## Open Source Vulnerability Scan Tools



## Free Online Scan



## Free Tools Useful in Vulnerability Scan



## Commercial Vulnerability Scanners



# THANK YOU!

Your Logo