Security Intelligence.
Think Integrated.

Protecting Enterprise Endpoints against Advanced Malware
with Trusteer Apex

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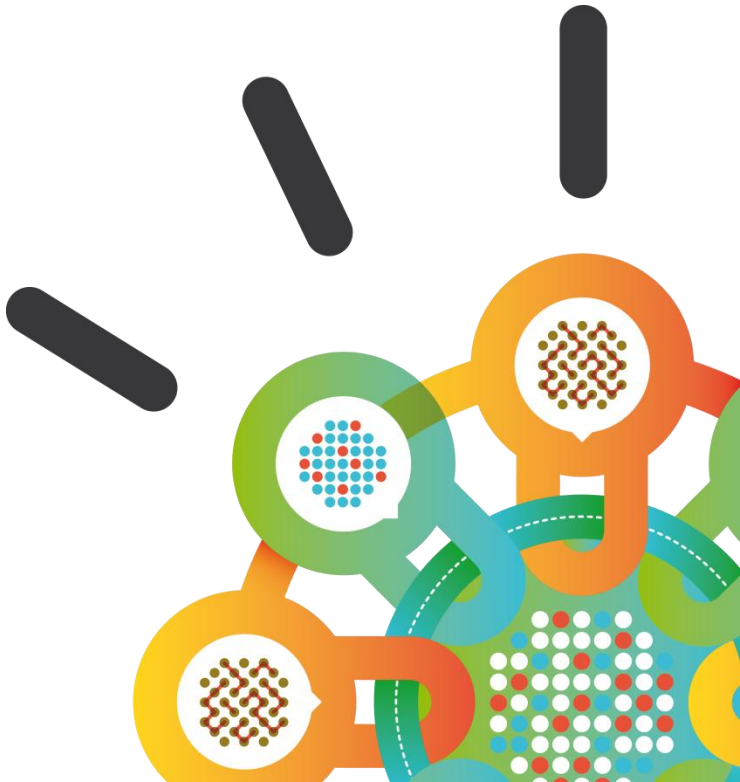
Trusteer, an IBM Company



About Trusteer

Company	Global leader in Advanced Threat Protection
Intelligence	Analysis of events from millions of protected endpoints
Technology	Proven and trusted agent-based technology

Trusteer Apex

Stopping advanced malware and APTs by preventing malicious downloads and data exfiltration

APTs and Targeted Attacks

The Tool of Choice: Exploits and Advanced Malware

- **The Entry Point:**
  - –Vulnerable User Endpoints
- **The Means:**
  - –Exploits, Drive-by Download
  - –Advanced Malware
  - –Compromised Credentials

Vulnerability disclosures leveled out in 2013, but attackers have

plenty of older, unpatched systems to exploit.

60% of the exploits target vulnerabilities that have been publicly known for over 12 months!!!

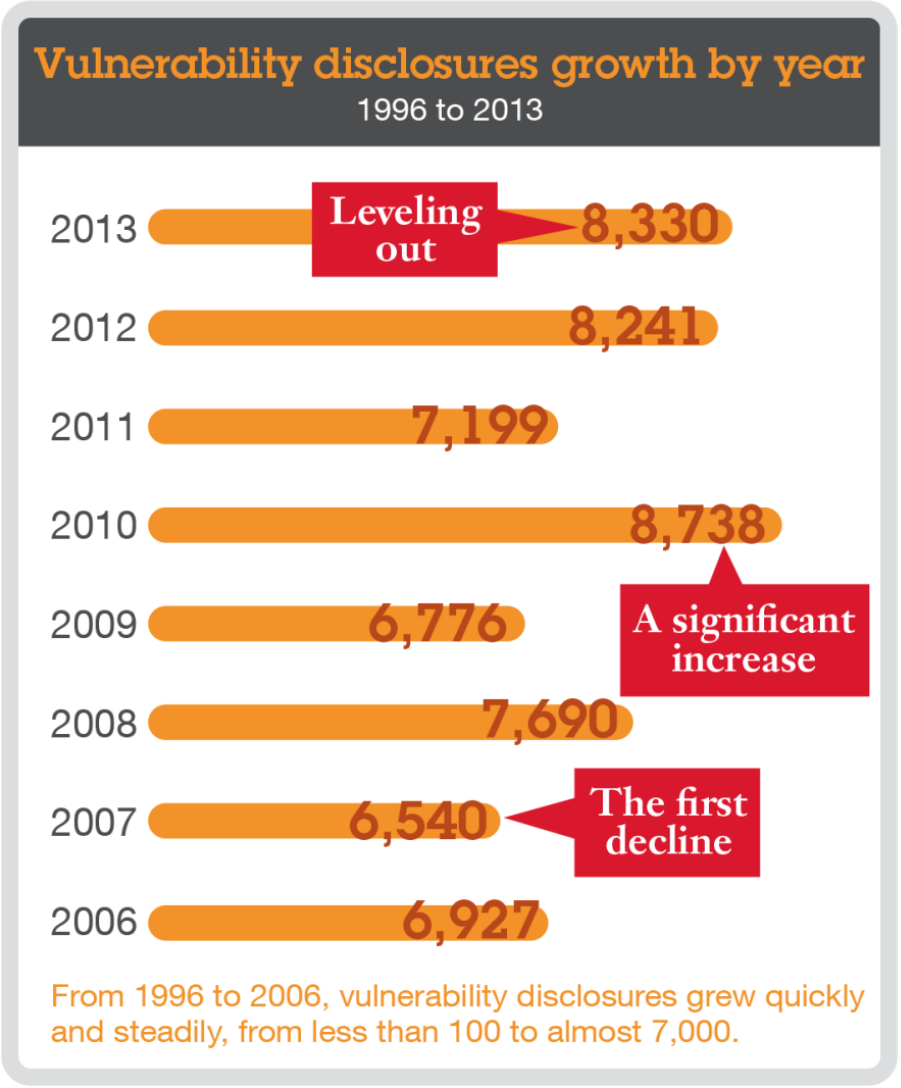
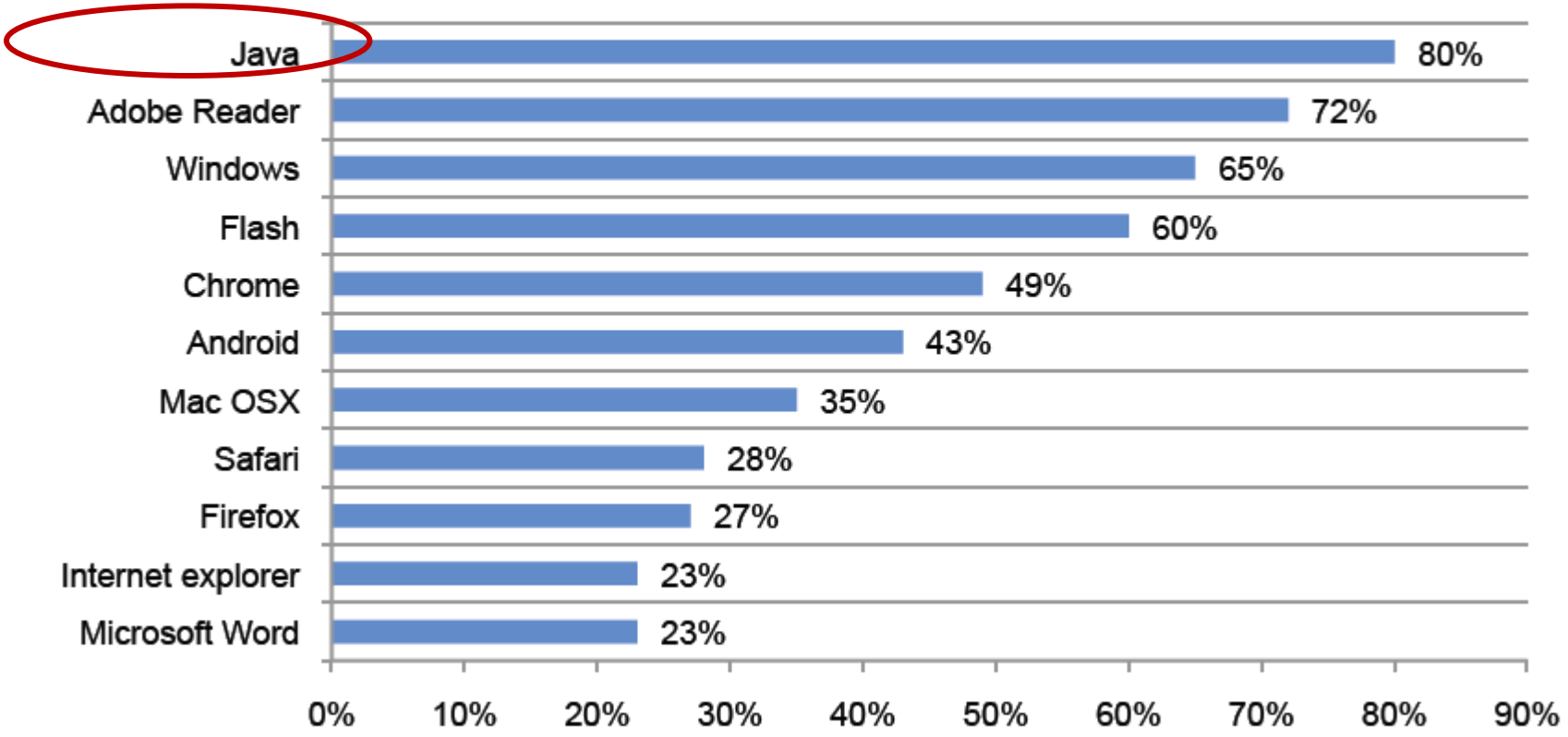


Figure 8. Vulnerability disclosures growth by year, 1996 to 2013

Source: IBM X-Force® Research and Development

Do you patch applications?

Figure 4. Which applications make it difficult to ensure all security patches have been fully implemented in a timely manner
Very difficult and difficult response combined



Source: Ponemon

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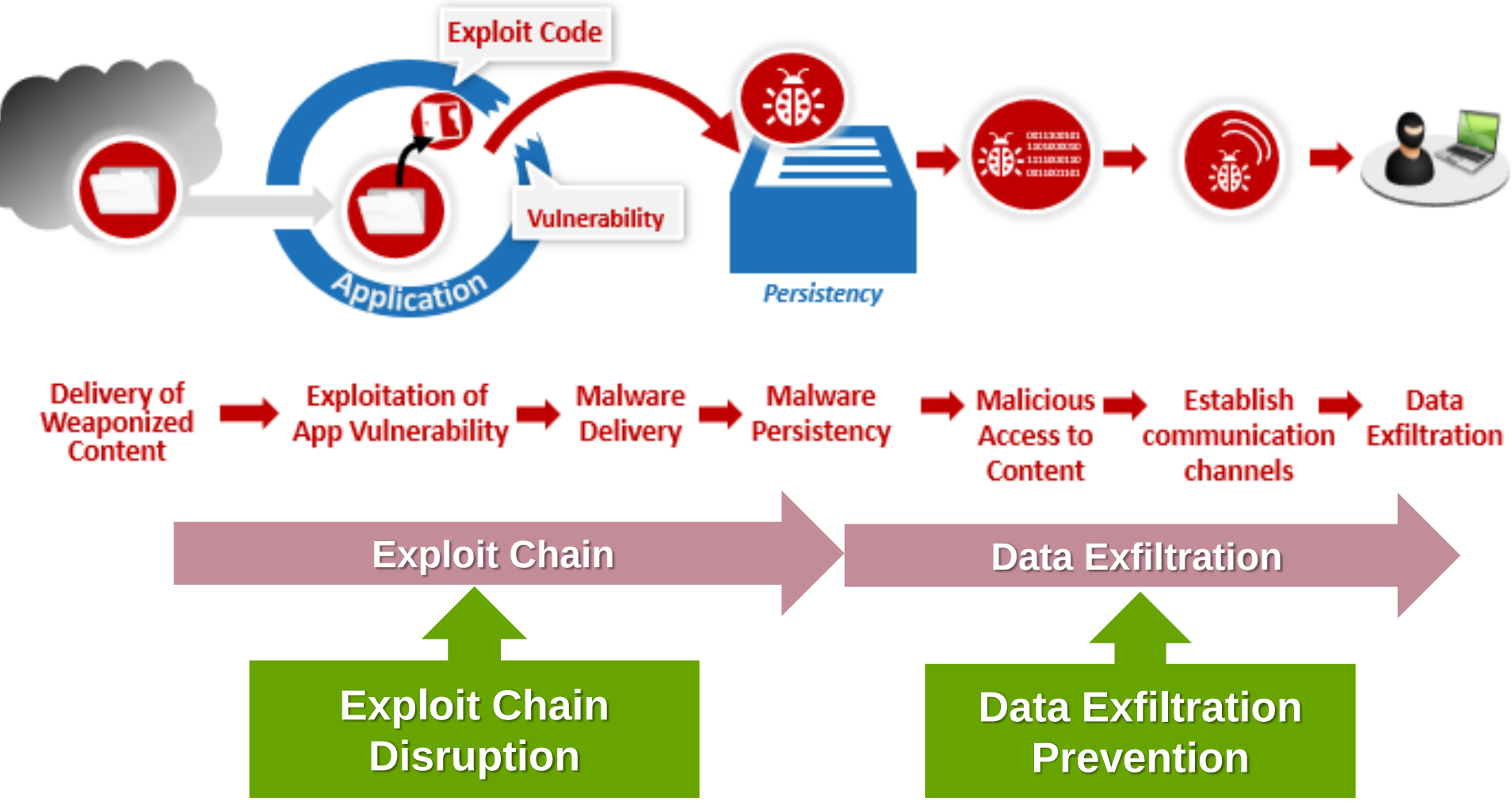
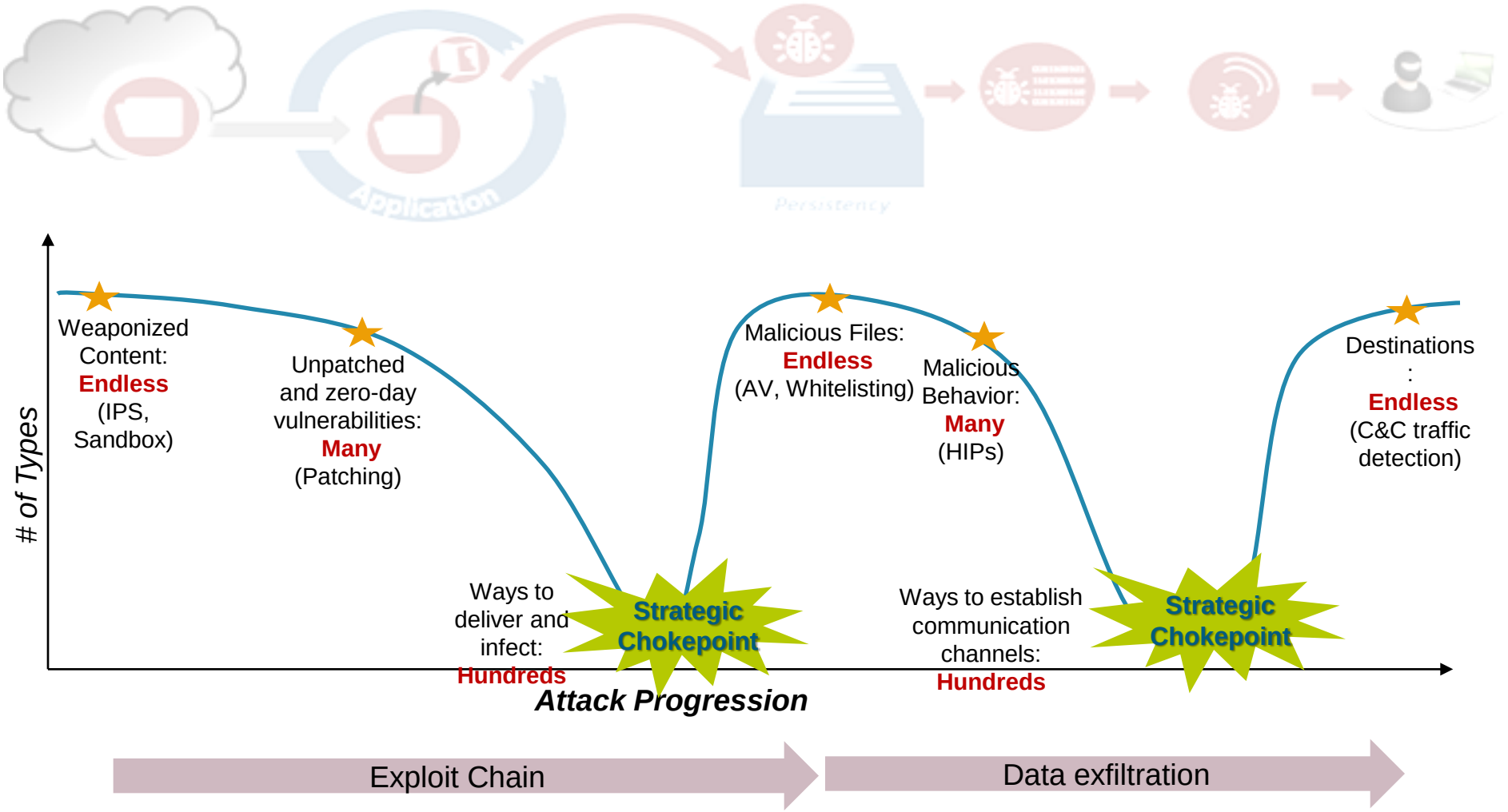
The Threat Lifecycle



Controlling Strategic Chokepoints

To break the threat lifecycle



Exploit Chain Disruption:
Stateful Application Control

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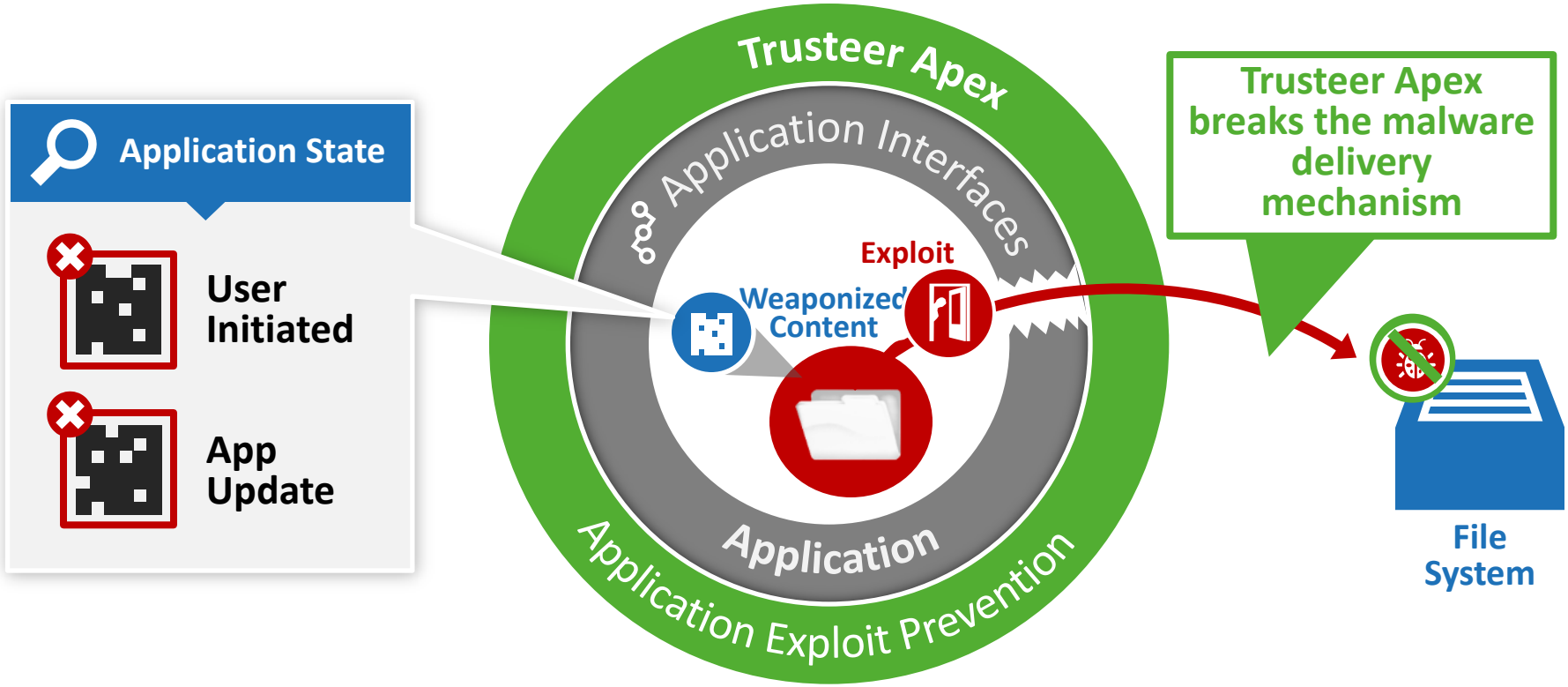
When unknown application states are created Apex stops the file delivery.



Data Exfiltration Prevention:
Block Malicious External Communication

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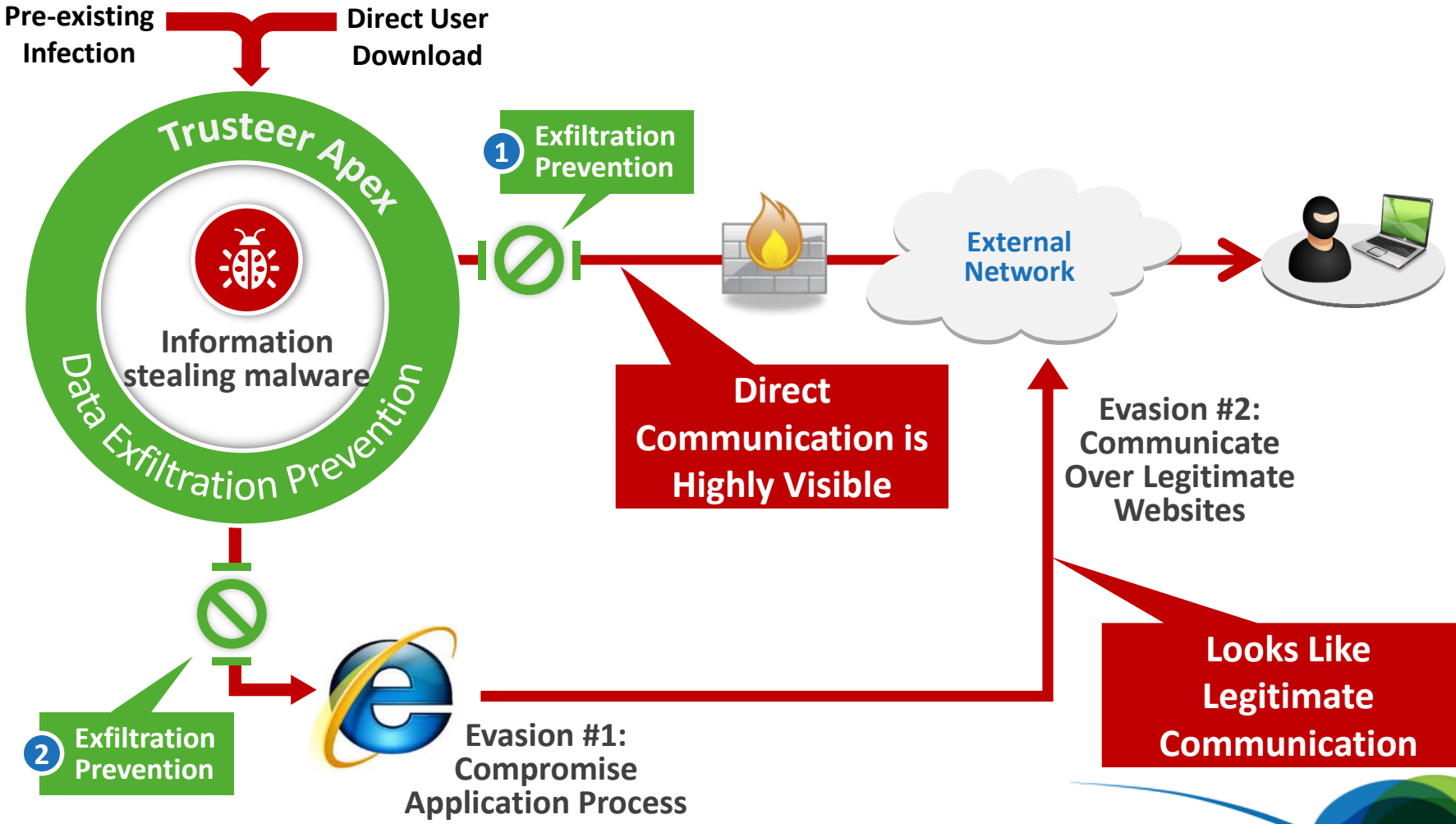
Block suspicious executables that attempt to compromise other applications or open malicious communication channels



Corporate Credentials Protection
Prevent Credentials Theft

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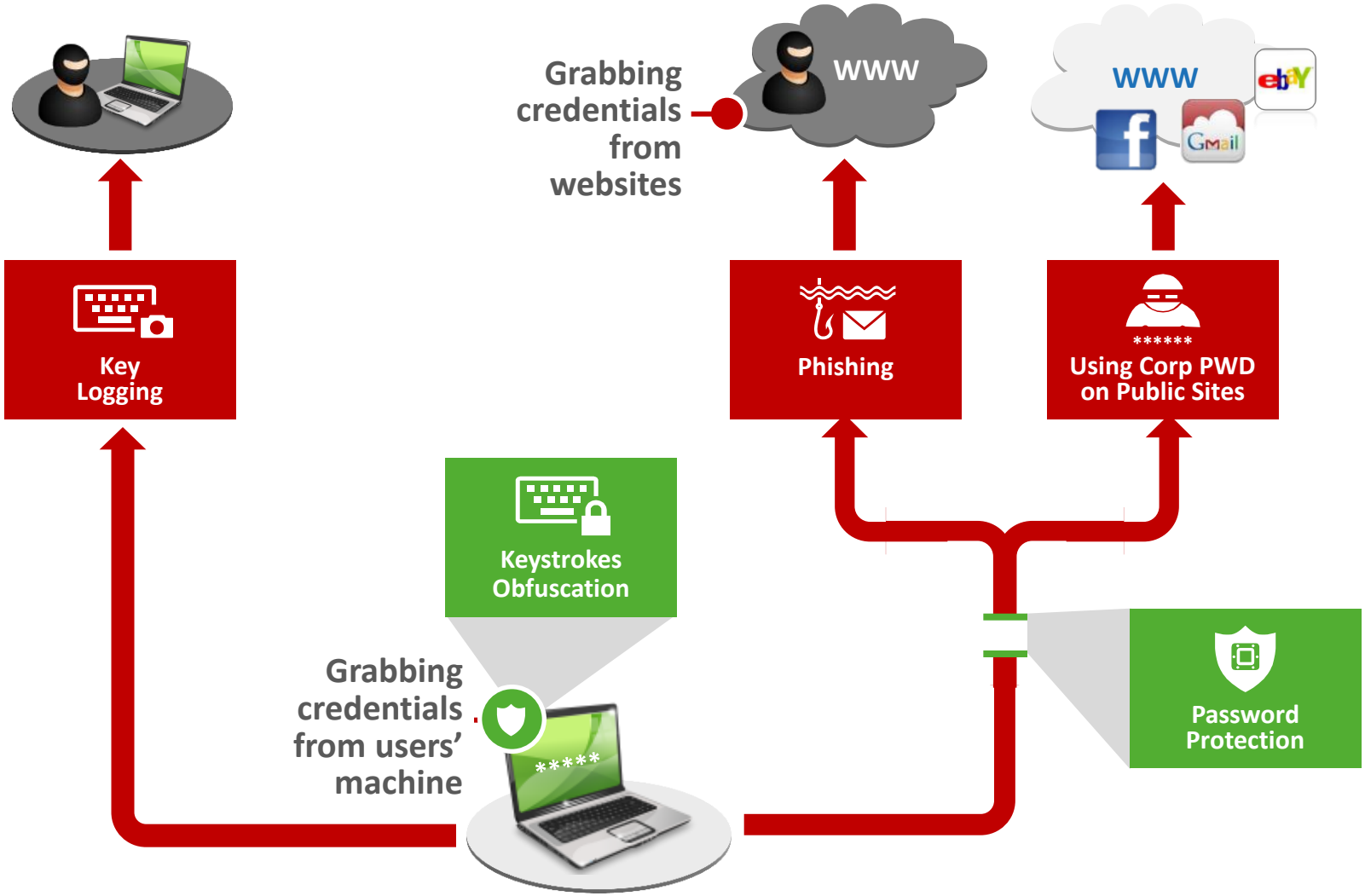

Trusteer Apex: 3 Security Layers

- Disrupts the exploit chain in multiple points
- Prevents silent malware download via exploitation
- Protects against zero-day threats

- Blocks malicious attempts to compromise applications
- Prevents attempts to establish communication channels
- Prevent information theft

- Block key-loggers
- Prevent submission on phishing sites
- Prevent reuse on public consumer sites

A few words about Java

A powerful yet dangerous application:

From laptops to datacenters, game consoles to scientific supercomputers, cell phones to the Internet, Java is everywhere!

- 1.1 billion desktops run Java
- 930 million Java Runtime Environment downloads each year
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Did you know that…

Java is installed on ~85% of the desktop computers.

Google Analytics

explosive growth of **Java vulnerabilities**...

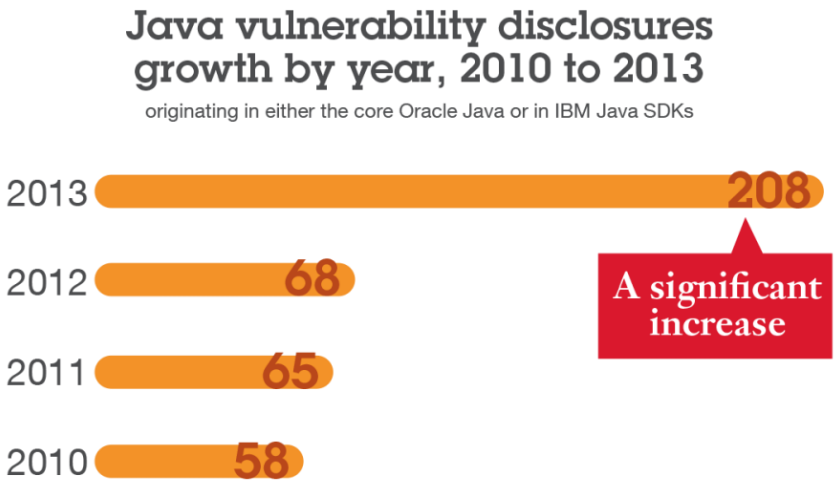

Figure 5. Java vulnerability disclosures growth by year, 2010 to 2013

Source: IBM X-Force® Research and Development

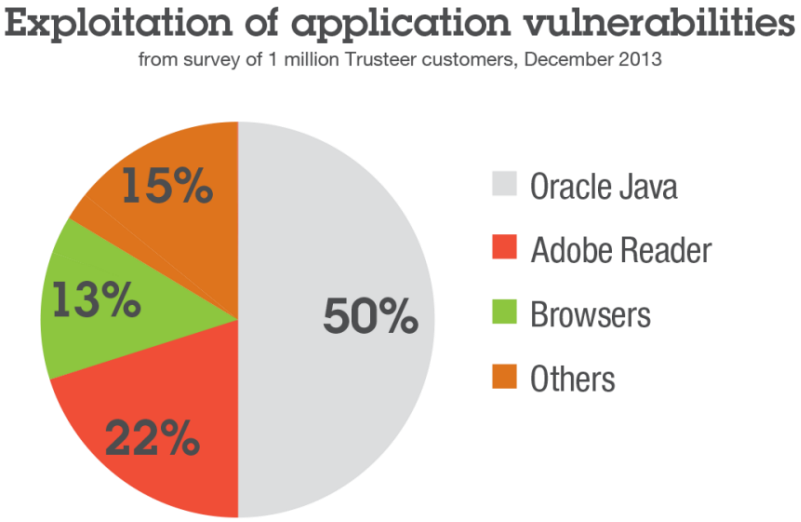

Figure 4. Exploitation of application vulnerabilities

Source: IBM X-Force® Research and Development

… combined with a presence in every enterprise makes Java the **top target** for exploits.

Most successful Java exploits are **applicative**, exploiting vulnerabilities related to the **Java security manager** and bypassing native OS-level protections.

Applicative exploits

- Difficult to defend
- Gain unrestricted privileges
- Bypass native OS-level protections

Native exploits

- Buffer Overflow
- Illegal memory use
- Use-after-free

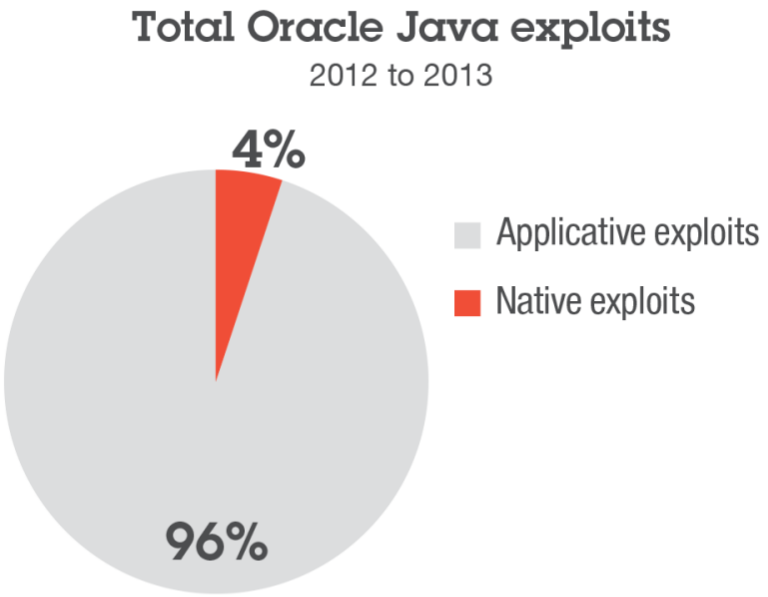

Figure 6. Total Oracle Java expoits, 2012 to 2013

Source: IBM X-Force® Research and Development

Java Execution Should be Monitored and Controlled

- Prevent Exploitation of both Native and Applicative Vulnerabilities
- Execution of Java code on the endpoint must be restricted
  - Fine grained control is needed
- Oracle's solution: Allow execution of signed JARs
  - Not good enough

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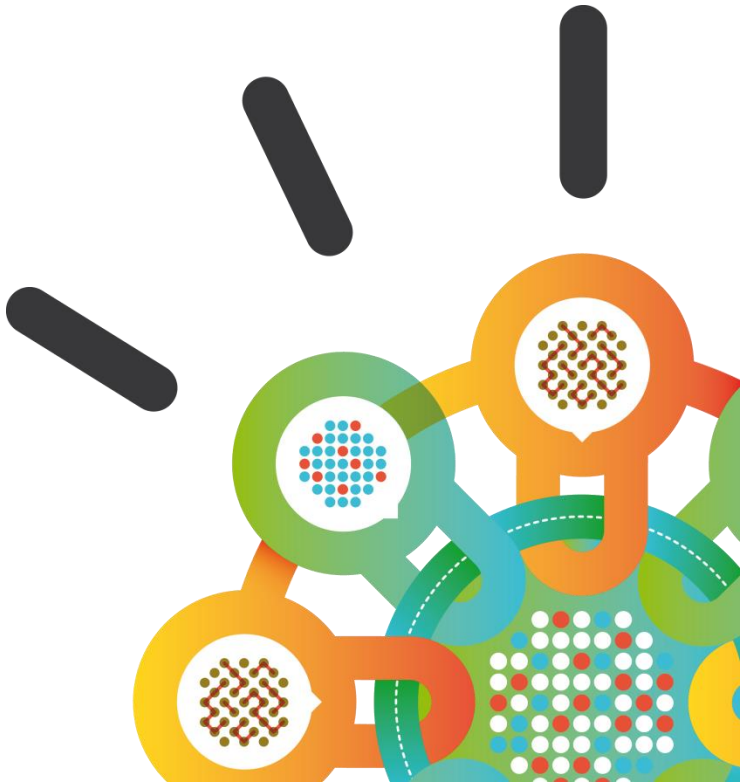
Questions?



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