

#### Paul Green

- President and Founder of G2, Inc
- We are trusted security advisors to the Federal Government and Fortune 500
- We are not a product reseller.
- We are recognized as having subject matter expertise in the implementation security compliance monitoring software.

### **Our Clients**





































Food and Drug Administration

# One of My Greatest Accomplishments



Zoe Marie 8lbs, 11oz. 9 days old.

### Still True in 2006

"Through 2005, 90 percent of cyber attacks will continue to exploit known security flaws for which a patch is available or a preventive measure known."

Gartner Group, May 6, 2002

### Let's Address Two Questions.

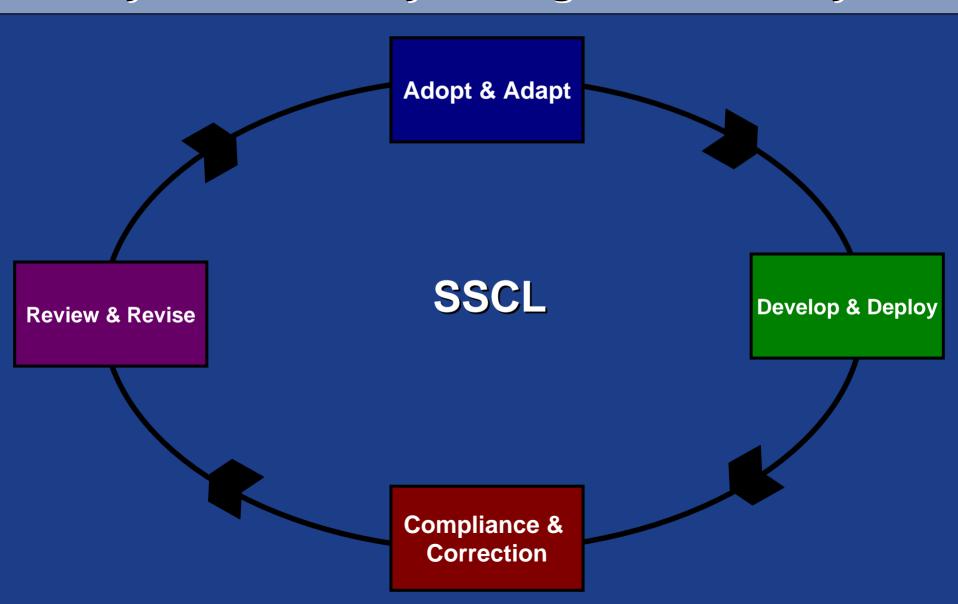
1. How can security automation improve the system security configuration lifecycle?

2. How could this change the services that we now offer?

## What Are My SSCL Goals?

- To facilitate easy-to-manage, consistent server compliance monitoring
- Evolve server security strategy from reactive to proactive
- Reduce attack surface and minimize operational risk
- Near-real-time, verifiable server compliance documentation
- These products will automate and change the way we validate and test our high-level requirements

# The System Security Configuration Lifecycle



- Review existing industry and government configuration checklists and standards (CIS, NIST, NSA, Vendors, etc.)
  - Checklists are often prose documents or spreadsheets and are not machine readable
    - Difficult to manage these files,
    - AND, nearly impossible to compare "side-to-side"

- Customize standard/checklist based on compatibility and risk assessment
  - These are often conglomerations of various checklists creating N number of "custom" baselines
    - When we account for operational issues we end up with NN variations.
    - In the end, how does your "custom" implementation compare to the original standards?

Adopt & Adapt



**NSAP** 

- Educate our clients that a machine readable format for checklists allows us to spend less time on document management and more time focused on other activities in the lifecycle.
- We now have a framework that provides traceability between our customized checklists and high level requirements. (e.g. 800.53, 8500)

- Customize standard/checklist based on compatibility and risk assessment
- Develop configuration scripts (address all standard OS's and builds) based on standards/checklists from A&A

 Incorporate standards/checklists into automated auditing toolset Develop & Deploy



**NSAP** 

- We can now convert the current organization's custom checklists into standardized XML format. (XCCDF/OVAL)
- A larger number of man hours can now be saved by using tools that accept the machine readable XCCDF format by directly importing the policies into the security tools
- We want to create build scripts that interpret standardized XML inputs and configure build scripts
- Learn how to express "customer specific checks" that are may not be included in CCE

- Analyze output from each of the scanning tools, in certain cases this includes manual cross referencing of findings
- Report and communicate results
  - In many cases this process is still paperbased, are the results produce 1000's of pages of information.
- Remediate (initial cycles will produce large amounts of remediation)

# Compliance & Correction



**NSAP** 

- We can develop scripts to compare the standardized XML output from each of the scanning tools.
- A machine readable format can support a seamless integration with XCCDF compatible tools.
- Using CCE, we now also have a common reference that allows us to map the configuration results between different security tools.
- Now we begin the decision process of determining and implementing the appropriate remediation path.
- This can include the analysis of compensating controls.

### **Our Wish List**

- We'd love to know if a CVE applies based on a the value of a CCE. (CVE pertains to only SSH, we want to report how many systems currently run SSH in a moment.)
- Facilitate temporary changes in systems configuration levels with respect to attack based scenarios and then return to the normal operation baseline once a patch has been identified.
- Love to see the connection between other high level requirements such as COBIT control objectives and XCCDF/OVAL.