Computer Security Technology Center

SSDS - Secure Software Distribution System

by

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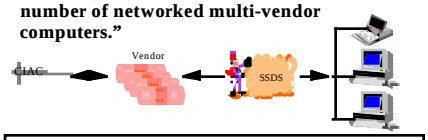
The Goal of SSDS

"To provide an automated means to rapidly evaluate, distribute, and install software security patches in a secure fashion on a large number of networked multi-vendor computers."

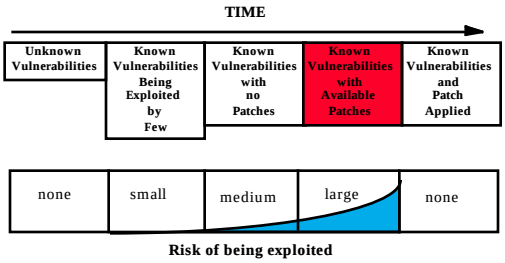


Results:
Greatly enhanced system security and integrity.

SSDS Motivation

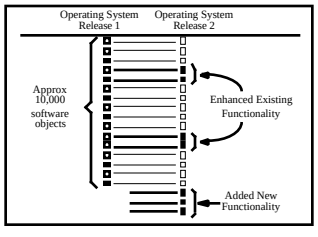
- **Maintenance of computer systems is a significant portion of the cost of ownership. SSDS reduces the this cost by providing transparent system administration.**
- **Multi-vendor computing environments are the norm not the exception. SSDS is vendor independent: it will work with any vendor's computing systems.**
- **System administration is labor intensive and requires specialized knowledge. SSDS leverages the skills and time of system administrators.**
- **Networked computer systems are vulnerable to viruses, trojan horses, and other malicious software. SSDS provides a comprehensive mechanism to evaluate and validate system's software of networked computers.**

Software Vulnerability Timeline



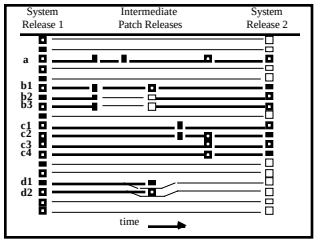
Risk of being exploited

Operating System Upgrade



Hundreds of software modules added or modified

Upgrades - The Ugly Reality



Patch conflicts and contingencies abound

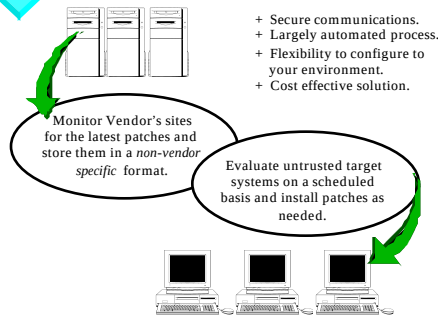
SSDS Objective

A centralized service providing intelligent and flexible automation in ...

- **Notification of new vendor security patches**
- **Determination of patch applicability**
- **Installation of security patches/software**
- **Ability to cleanly "back-out" patches/software**
- **Rapid site-wide patch status metrics and queries**

with authenticated and data-protected connections to the target systems.

SSDS Approach



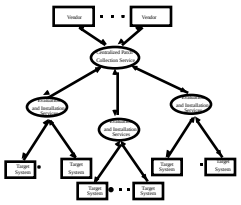
+ Secure communications.
+ Largely automated process.
+ Flexibility to configure to your environment.
+ Cost effective solution.

SSDS Advantages

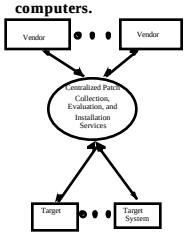
- **Centralized service.**
- **Largely an automated process.**
- **Flexible to fit any environment.**
- **Vendor independent.**
- **Ensures the integrity of the system software.**
- **The price is right!**

SSDS Fits Any Environment

- **Many networks and hundreds of computers.**



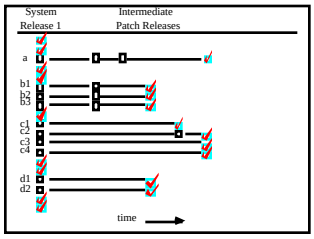
- **One network and few computers.**



SSDS is Vendor Independent

- **Vendor's patches are converted to a standard machine-readable patch format.**
  - **We are starting to work with the vendors to adopt a patch standard format.**
- **SSDS is implemented in Java.**
  - **"Write once, Run anywhere."**
  - **Tested prototype on Sun Solaris.**
  - **Test on other UNIX flavors when Java 1.1 is released.**

SSDS Ensures the System Software Integrity



Obsolete Latest release