Mature PSIRTs Need Mature Tools

Beverly Finch | beverlyfinch@lenovo.com
PSIRT Program Manager, Product Security Office
Lenovo USA, Morrisville, North Carolina

Bio: Beverly Finch

PSIRT Program Manager

- Executive Project Manager (20+ years PMI Certified)
- Lean Six Sigma
- Launched Lenovo PSIRT, 2014
- MITRE CVE Board
- FIRST.org Member
- FIRST PSIRT Framework Working Group
- Chair, Vendor SIG

Product Security Organization

VP- Research & Technology

Server Security Architect-SME (Assigned to DCG)

Director/Mgr Security Office

Chief Security Officer

Security Office

Technical Programs

- Client/SW Sec Architect- SME
- Ethical Hack/Pen Test SME (Assigned to PCG)
- BIOS SME
- Test & IT Admin

Systems & SC Prog Mgmt

- System Programs PM
- Web Dev/Technical Writer
- Supply Chain PM/TPM

PSIRT

- Beverly Finch PSIRT Lead & PM
- Scott Kelso PSIRT Tech-PM

System x Compliance

- System x NSA & HIPAA Compliance PM (Assigned to DCG)
- Security Auditor (Assigned to ISSO Stds – Environmental Group)

WW Security Programs

- WW Compliance PM
- China Compliance PM

Product Security Incident Response Team (PSIRT)

Milestones

- 2014: Established, permanently staffed
- 2015: Admitted to FIRST
  - Sponsored by Cisco, Intel
- 2016: CVE Numbering Authority

Objectives

- Respond to product vulnerability reports
- Coordinate with business units and industry to ensure clear direction and communication
- Negotiate disclosure timelines and plans with researchers and coordination centers
- Drive remediation
- Support customers by publishing product security advisories
- Engage with external PSIRTs to establish and promote best practices around security vulnerability handling

Resource:
PSIRT

- Contact: psirt@lenovo.com
- Advisories: https://support.lenovo.com/us/en/product_security/home

Lenovo PSIRT Evolution

Past
2014

Reactive only

Spreadsheet Tracking

Security advisory control outside PSIRT

Now
2015-2018

Proactive

Jira-based tracking tool

Spreadsheet tracking of product attributes

Security advisory publishing control

Communications/Legal engagement

SLA Dashboards

Automated customer notification

Future
2018+

Product Attribute Database (PAD)

PAD driven by composition analysis tools

Increased ownership by brands

Improved Security Advisories

Add open source advisories

Automated SLA Dashboards

Tooling Concerns

What products do we support?

What is included in our products?

What open source do we use?

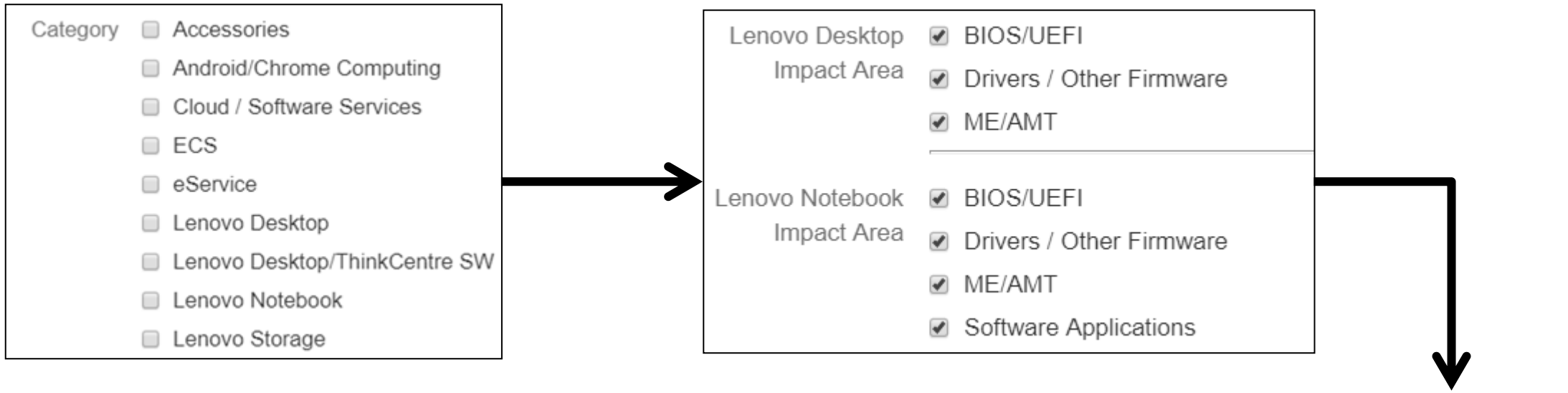
Targeted case assignment

Advisory preparation

SLA Tracking

Customer notification

Current – Creating a Case



Sub-Tasks Progress

1. Test - Lenovo Desktop BIOS/UEFI CLASSIFY
2. Test - Lenovo Desktop - Drivers / Other Firmware task CLASSIFY
3. Test - Lenovo Desktop - ME/AMT task CLASSIFY
4. Test - Lenovo Notebook - BIOS/UEFI task. CLASSIFY
5. Test - Lenovo Notebook- Drivers / Other Firmware task CLASSIFY
6. Test - Lenovo Notebook - ME/AMT task CLASSIFY
7. Test - Lenovo Notebook Software Applications - Lenovo task CLASSIFY

Future – Creating a Case

Attributes

glibc
bios
ME
Linux_kernel
Nvidia graphics
Phoenix
openssl
BMC
fingerprint
audio
System Update
Intel graphics
AMI

Solution

1 **Product Attribute Database**
Inventory of all supported products and their attributes
Links products to supported components and open source/third party code to components

2 **Improved Jira Workflows**
SLAs built in

3 **Automated Product tables for Security Advisories**
Filters generate product tables for advisories

4 **‘Button Push’ SLA Metrics and Notifications**
Improved SLA reporting capabilities

Different is better

Lenovo™