Government Vulnerability Disclosure Programme

Government Technology Agency – Cybersecurity Group

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Government Technology Agency

• GovTech is a Statutory Board under the Smart Nation and Digital Government Group (SNDGG) in the Prime Minister’s Office

• GovTech is the public sector lead for cybersecurity and oversees the key government ICT infrastructure, as well as regulates ICT procurement, data protection and security in the public sector

• There are a total of 100 ministries, statutory boards and government agencies in the Singapore Government
National Cybersecurity Strategy

1. Building a Resilient Infrastructure
2. Creating a Safer Cyberspace
3. Developing a Vibrant Cybersecurity Ecosystem
4. Strengthening International Partnerships
GovTech – Initiatives

• 2018 – Government Bug Bounty Programme (BBP)
  • One of many ongoing efforts in our International front, to leverage on crowdsource to identify cyber blind spots in government systems
  • 3 successful runs so far

• 2019 – Government Vulnerability Disclosure Programme (VDP)
  • Parallel effort to leverage on crowdsource to strengthen the security of our internet-facing systems

• Lessons learnt are shared through SingCERT
  • For promulgation to the larger international community
VDP is different from Traditional Penetration Testing
Achievements to Date

**VDP**
- **167 submissions** received in 3 months
- **111 (67%)** triaged as valid vulnerabilities

**BBP**
- **461 submissions** received from 3 runs
- **90 (20%)** valid vulnerabilities
- **720 International researchers**
Types of Vulnerabilities Discovered

- **70%** of vulnerabilities found due to lack of Input Validation
- **49%** of vulnerabilities involved Cross Site Scripting
- **46%** of vulnerabilities were not easy to discover
- Common vulnerabilities seen and discovered

Types of Vulnerabilities Discovered:

- Cross Frame Scripting
- HTML Injection
- Client Side Template Injection
- Cross Site Scripting
- SQL injection
- Client Side Validation Bypass
- Open Redirect
- Path Traversal Attacks
- Content Manipulation
- XML External Entity
- Arbitrary File Upload
Benefits of Crowdsourced VDP and BBP

1. Identifying cyber blind spots of traditional security reviews and testings
2. Identifying the vulnerability root cause in our Government applications and systems
3. Building a community to aid in Continuous Testing
“Cybersecurity is a team effort, everyone has a part to play, and everyone has to play their part. The Government will take the lead to spearhead initiatives to enhance Singapore’s cybersecurity stance, and we will need everyone’s cooperation to reap long term benefits for the cyber ecosystem. We aim to build a Smart Nation – one that will be enabled by trustworthy infrastructure and technology.”

Former Minister-in-charge of Cybersecurity, Dr Yaacob Ibrahim,
GovernmentWare 2015
Thank You

For any enquires, please contact:
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