# PSIRT New Experience
# Managing Cloud Vulnerabilities

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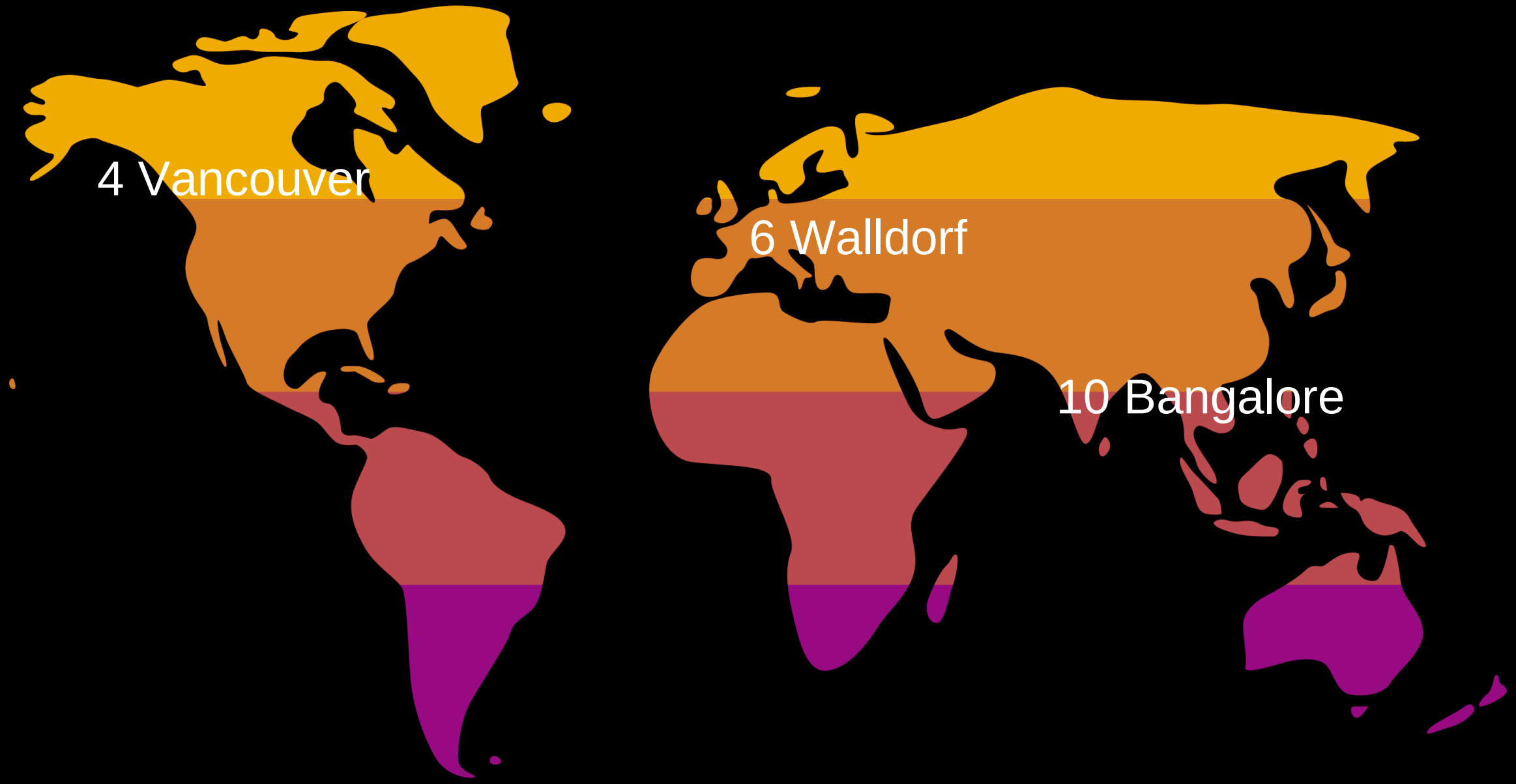
4 Vancouver
6 Walldorf
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# Purpose and Agenda

## Purpose

- Share experience handling customer cloud penetration reports
- Observations and challenges
- Engage in discussion, any insights, advice, best practices…

## Proposed Agenda

- 30 minutes of presentation and sharing experience
- 15 minutes of discussion to share solutions or ideas to streamline process

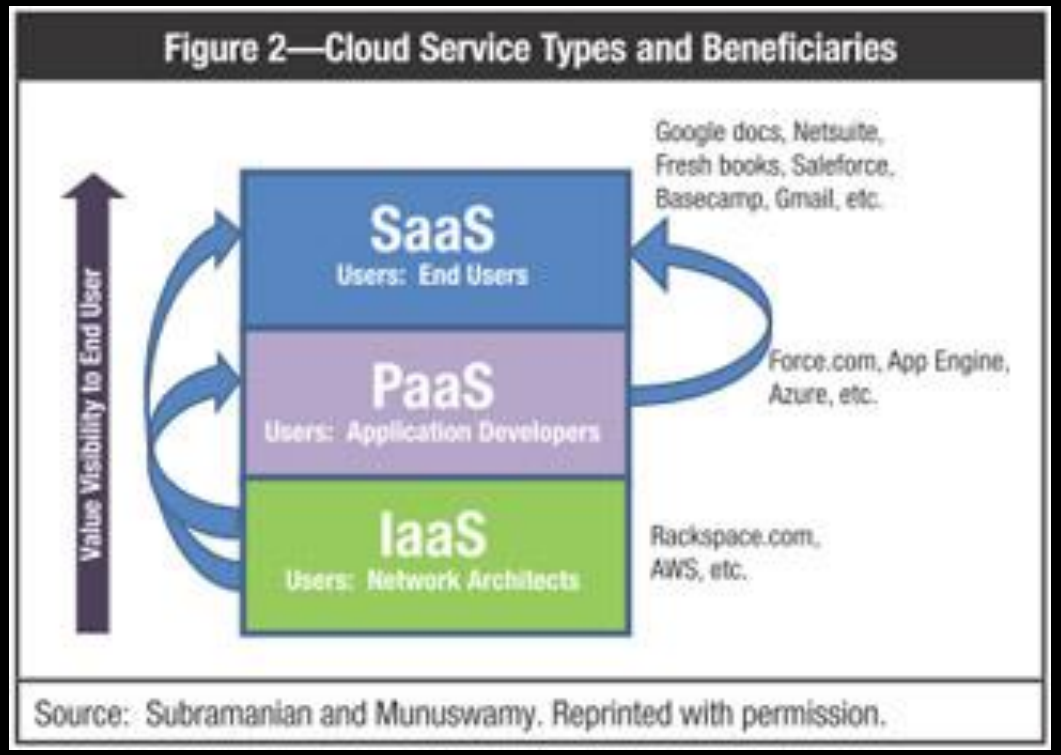
## References

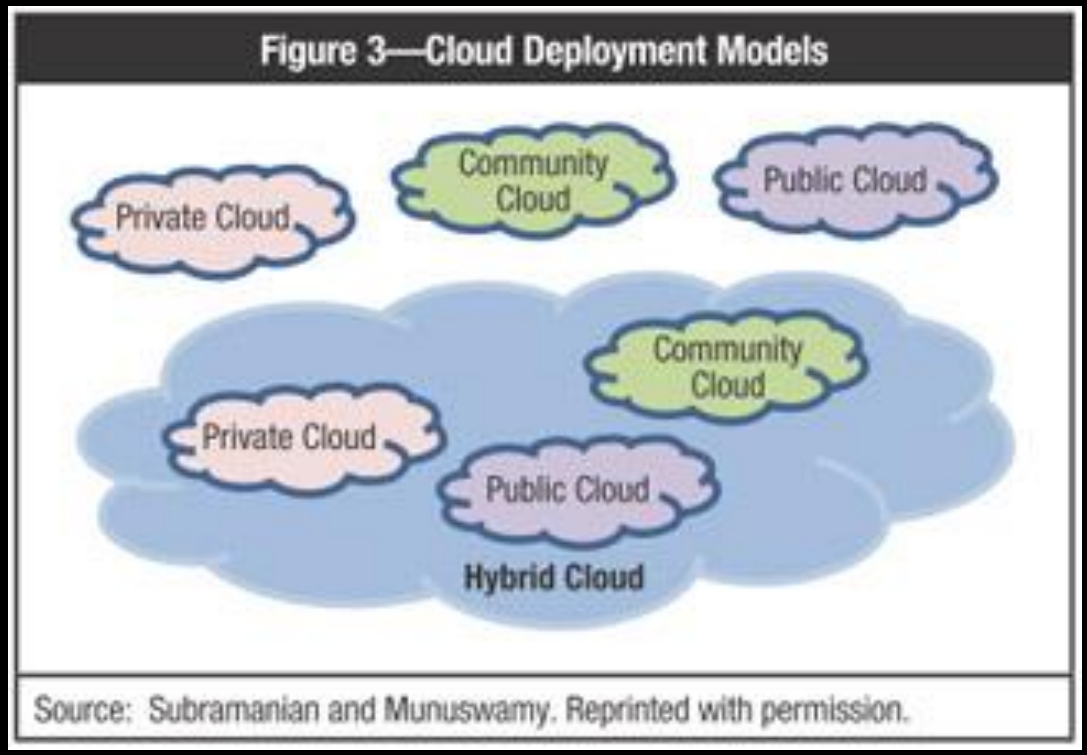
- ISACA: Security Mysteries in the Cloud - https://www.isaca.org/Journal/archives/2015/Volume-3/Pages/security-mysteries-in-the-cloud.aspx

# Outcome new ideas

# Customers moving from on-premise to Cloud the benefits and security considerations

# Cloud provides service, architecture and deployment models




## Cloud Architecture - multitenant & single-tenant

# Cloud security considerations

- Top consideration Security and Privacy
- Regulatory, compliance or audit requirements
- Request to audit = cloud pen-test
- Shared responsibility customer and Cloud provider

# A new experience handling customer reported cloud vulnerabilities…

# Cloud penetration testing approach and results

- Automated tools results may include:
  - high numbers of false positives
  - generic descriptions
  - lack details to validate
  - shared responsibility inside and outside the company
- Priority ratings

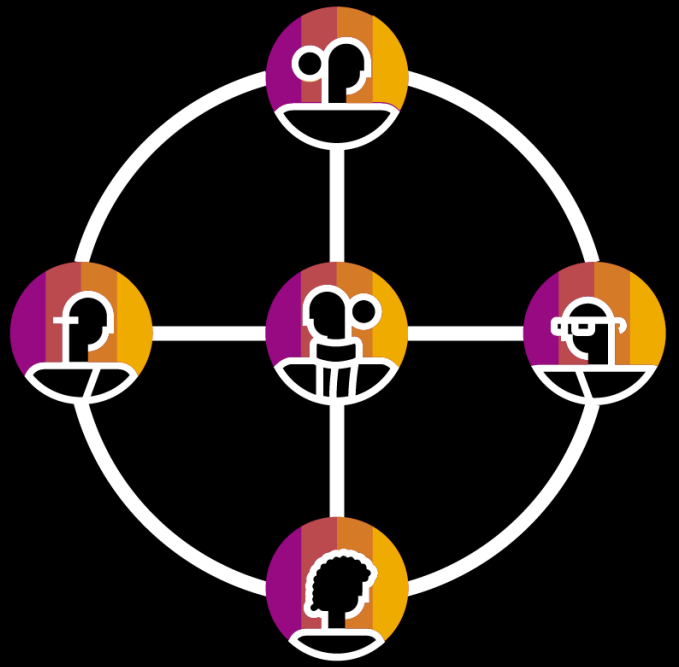


# Findings reported

- All sorts of findings, not all are vulnerabilities
- Repeated findings customers test independently of each other
- Challenge cleanse report
- Solutions? knowledge base, or establish security expert for each cloud offering

# Consumer service expectations

- Expectations vary from high to passive
- Review based on customer priority
- Common Vulnerability Scoring System (CVSS) not as important for Cloud - internally used to validate findings
- Service Level Agreement (SLAs) currently under review for cloud offerings



# Communication role redefined

- Communication expands to a customer support role
- New skills required to manage expectations and ensure confidence
- Considerations secure communications – Non Disclosure Agreement (NDA)
- Tracking and reporting findings

# Cloud areas review and remediation

- Engineers review full report
- Prioritize based on customer priority
- Create ticket in back end systems for validated findings
  – not linked to on-premise ticketing system
- Cloud and on-premise versions require co-ordination
- Cloud fix applied for all customers

## On-premise vs Cloud

| Subject | On-premise | Cloud |
|---|---|---|
| Communication | External researchers | Customers and 3rd party testers. |
| Types of issues reported | Most are verified vulnerabilities | A range of findings, not all are vulnerabilities. |
| Number of reported findings | Typically, one | Full report with multiple findings. |
| CVSS | Required | Customers provides priority rating. CVSS used internally on occasions to validate severity. |
| Patch released | Required | Not required. Fix typically released faster than on-premise to all Tenants. No patches. No customer action required. |

# Cloud process continues to evolve

# Thank you.

Contact information:

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# References

- https://nmap.org/
- https://portswigger.net/burp
- https://www.tenable.com/products/nessus/nessus-professional