

# IT Audit and Implementation

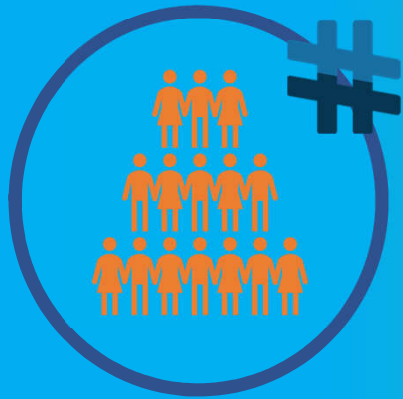
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ISACA Community Day 3 October 2020 – ISACA Student Group

Information System Audit and Accounting Program

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# Background – Digital Growth



**7.75 Billion**  
**(Population)**



**5.19 Billion**  
**(Connected)**



**4.54 Billion**  
**(Internet User)**

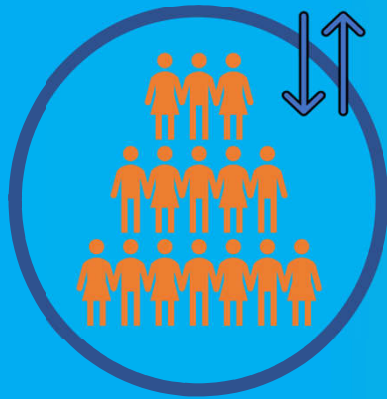


**3.8 Billion**  
**(Social Media)**

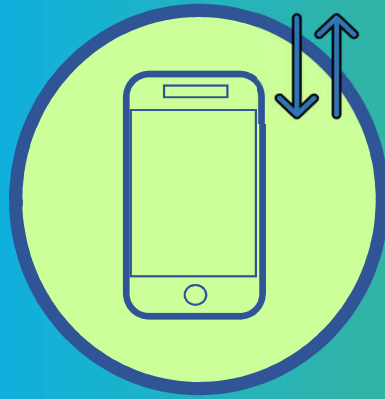
# Background – Global E-Commerce Activities



## Background – Indonesian Digital User



**272.1 Million**  
**(Population)**



**338.2 Million**  
**(Connected)**

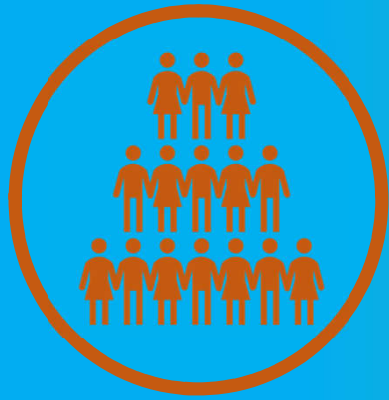


**175.4 Million**  
**(Internet User)**



**160 Million**  
**(Social Media)**

## Background – Indonesian Population by Age



**272.1 Million**  
**(Population)**



**210.3 Million**  
**(13+ above)**



**187.1 Million**  
**(18+ above)**



**179 Million**  
**(16 to 64 )**

## Background – Indonesian Device Ownership



(96%)



(94%)



(21%)



(66%)



(23%)



(5.7%)



(16%)



(7.8%)



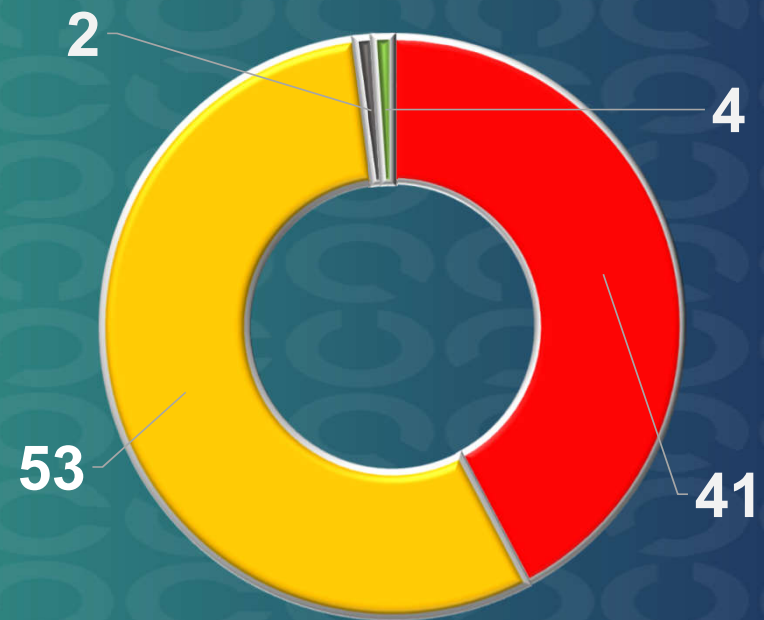
(13%)



(5.1%)

## Attack on January - April 2020 (88,414,296 totally)

- Information Gathering (53%)
- Trojan Activities (41)%
- Exploit Kit (4%)
- Web Attack and Others (2%)





## Facts and Stats 2019

- ✓ Data Breach 4.1 Billions records
- ✓ Hacker attacks every 39 seconds on average 2.244 times a day
- ✓ 57% of companies experienced social engineering and phishing attacks
- ✓ 53% of companies had over 1000 sensitive files open to every employee
- ✓ The Cost of Data Breach in the healthcare industry was the highest at US\$ 6.5 million
- ✓ US\$ 3.9 Million is the average cost of data breach worldwide and US\$ 8.2 Million in the United States
- ✓ By 2021, there will be 3.5 Million unfilled Cyber Security and Audit Security Jobs Globally



# Integrated Audit



# IT Audit Definition (Steven D. Gantz, 2014)

International Organization for Standardization (ISO) guidelines on auditing use the term audit to mean a “**systematic, independent and documented process for obtaining audit evidence and evaluating it objectively** to determine the extent to which the audit criteria are fulfilled”

Information Technology Infrastructure Library (ITIL) glossary defines audit as “**formal inspection and verification to check whether a standard or set of guidelines is being followed, that records are accurate, or that efficiency and effectiveness targets are being met.**”

# IT Audit Process

- **Determine Response to Findings**
- **Develop Corrective Action Plan**
- **Monitor Corrective Action Activities**
- **Conduct Follow-Up (re-audit)**

- **Prepare and document finding**
- **Prepare Audit Workpapers**
- **Recommend Corrective Actions**
- **Finalize and Deliver Formal Audit Reports**



- **Determine Scope and Objectives**
- **Assign Audit Resources**
- **Choose or Design Audit Procedures**
- **Gather Data to Support Audit**

- **Examine Documentation**
- **Collect and Review Evidence**
- **Evaluate Controls (Observe and Test)**
- **Analyze Information and identify issues**

# IT Audit Methodologies and Framework

Methodology / Framework	Source	Type	Focus
Control Objectives for Business and Related Information Technology (COBIT)	ISACA	IT Governance	Process Control
International Standards on Auditing (ISA)	IAASB	Auditing	External Audit
Internal Control – Integrated Framework	COSO	Internal Control	Internal Audit
ISO 19011	ISO	Auditing	Mgmt. System
ISO 27001	ISO / IEC	Security Control	ISMS
ISO 27007	ISO / IEC	Auditing	ISMS
ISO 38500	ISO / IEC	IT Governance	Corporate Governance
Information Technology Infrastructure Library (ITIL)	Cabinet Office (UK)	IT Service Management	Service Control
General Accepted Auditing Standards (GAAS)	AICPA	Auditing	External Audit

## IT Audit Institution

Institution	Certificates
Control Objectives for Business and Related Information Technology (COBIT)	ISACA
International Standards on Auditing (ISA)	IAASB
Internal Control – Integrated Framework	COSO
ISO 19011	ISO
ISO 27001	ISO / IEC
ISO 27007	ISO / IEC
ISO 38500	ISO / IEC
Information Technology Infrastructure Library (ITIL)	Cabinet Office (UK)
General Accepted Auditing Standards (GAAS)	AICPA

# IT Audit Certification

Institution	Certificates
American Institute of Certified Public Accountants (AICPA)	CPA, CITP
The Institute of Internal Auditors (IIA)	CIA
Information Systems Audit and Control Association (ISACA)	CISA, CISM, CGEIT, CRISC, CSX-P, CDPSE
International Information Systems Security Certification Consortium (ISC2)	CISSP, SSCP, CSSLP, CCFP, CAP
The International Council of E-Commerce Consultants (EC-Council)	CEH, CHFI, LPT, ECSA



If everyone wants to create  
applications and software,  
then who will evaluate and  
secure it ?

# References

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Indonesia Chapter