



# *Penerapan Teknologi Big Data Badan Siber dan Sandi Negara*

PUSAT DATA DAN TEKNOLOGI INFORMASI KOMUNIKASI

Jakarta, 14 Agustus 2020

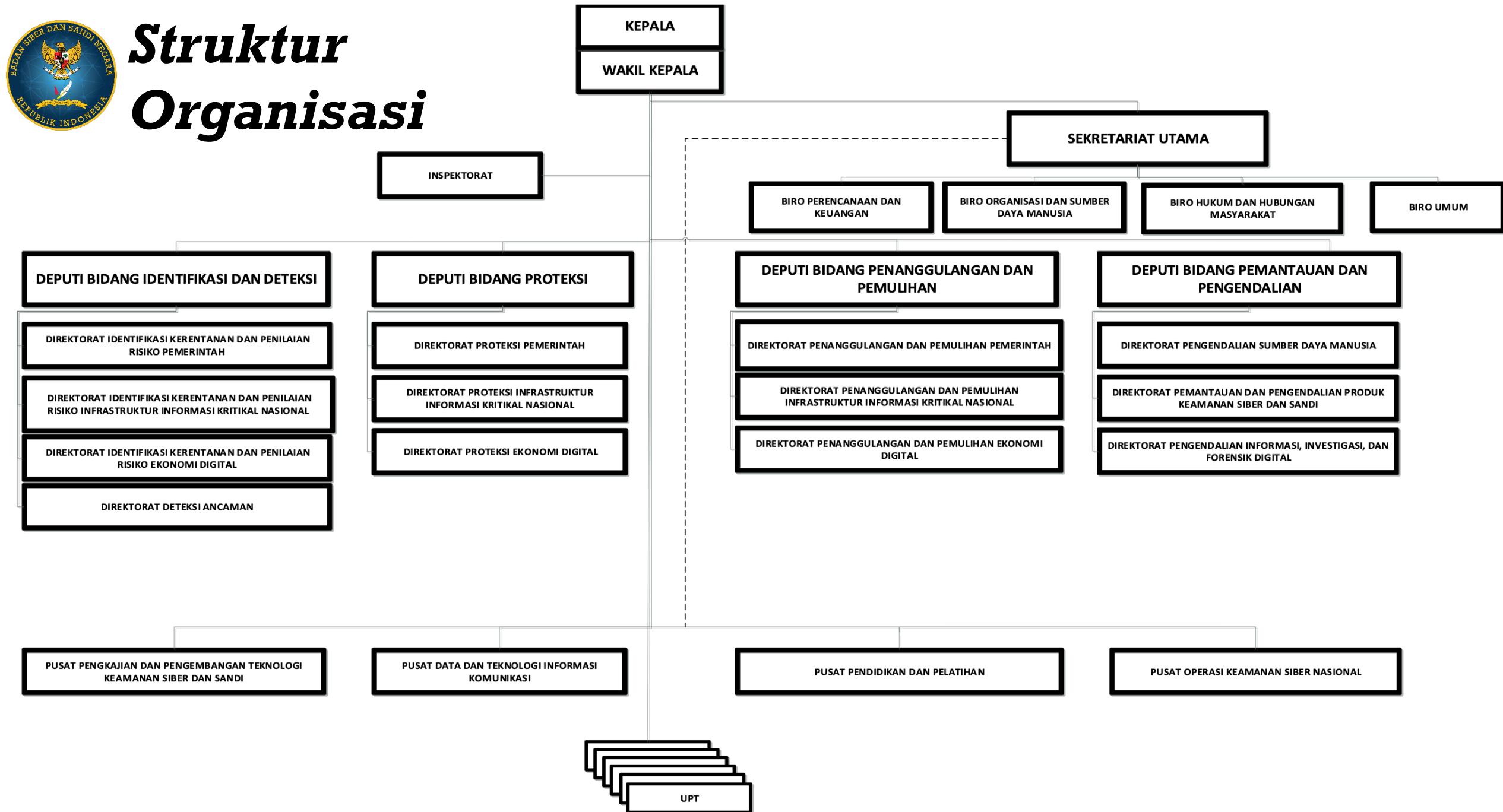
**Bersama BSSN Kita Aman dan Sejahtera**



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DAN SANDI  
NEGARA**



# Struktur Organisasi



# BIG DATA



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DAN SANDI  
NEGARA**

**Big Data** is high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation.

-Gartner-





# KESIAPAN REGULASI DAN INFRASTRUKTUR



Pedoman Kepala BSSN No.3 Tahun 2019  
Tentang Rencana Strategis Teknologi Informasi dan Komunikasi BSSN



Pedoman Kepala BSSN No. 2 Tahun 2020  
Tentang Pengelolaan Pusat Data BSSN



Pedoman Kepala BSSN Tentang Tata Kelola Teknologi Informasi dan  
Komunikasi BSSN

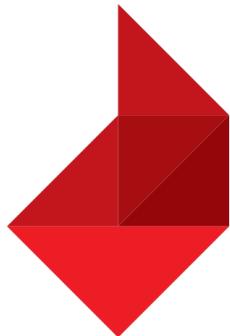


Data Center BSSN mendukung dalam kesiapan  
implementasi Big Data.



# PENYUSUNAN ENTERPRISE ARCHITECTURE

- ✓ Memberikan kerangka acuan dan pedoman dasar bagi implementasi interoperabilitas data.
- ✓ Mempersiapkan organisasi secara strategis untuk cepat berkembang dengan pemanfaatan *Data Analytics*.
- ✓ Menerjemahkan kebutuhan bisnis kedalam persyaratan data dan informasi.
- ✓ Memfasilitasi penyelarasan data dan proses bisnis
- ✓ Menggambarkan aliran data dan informasi antara satuan kerja beserta proses bisnisnya.
- ✓ Mengimplementasikan rancangan kedalam aplikasi datawarehouse dan dashboard informasi eksekutif.



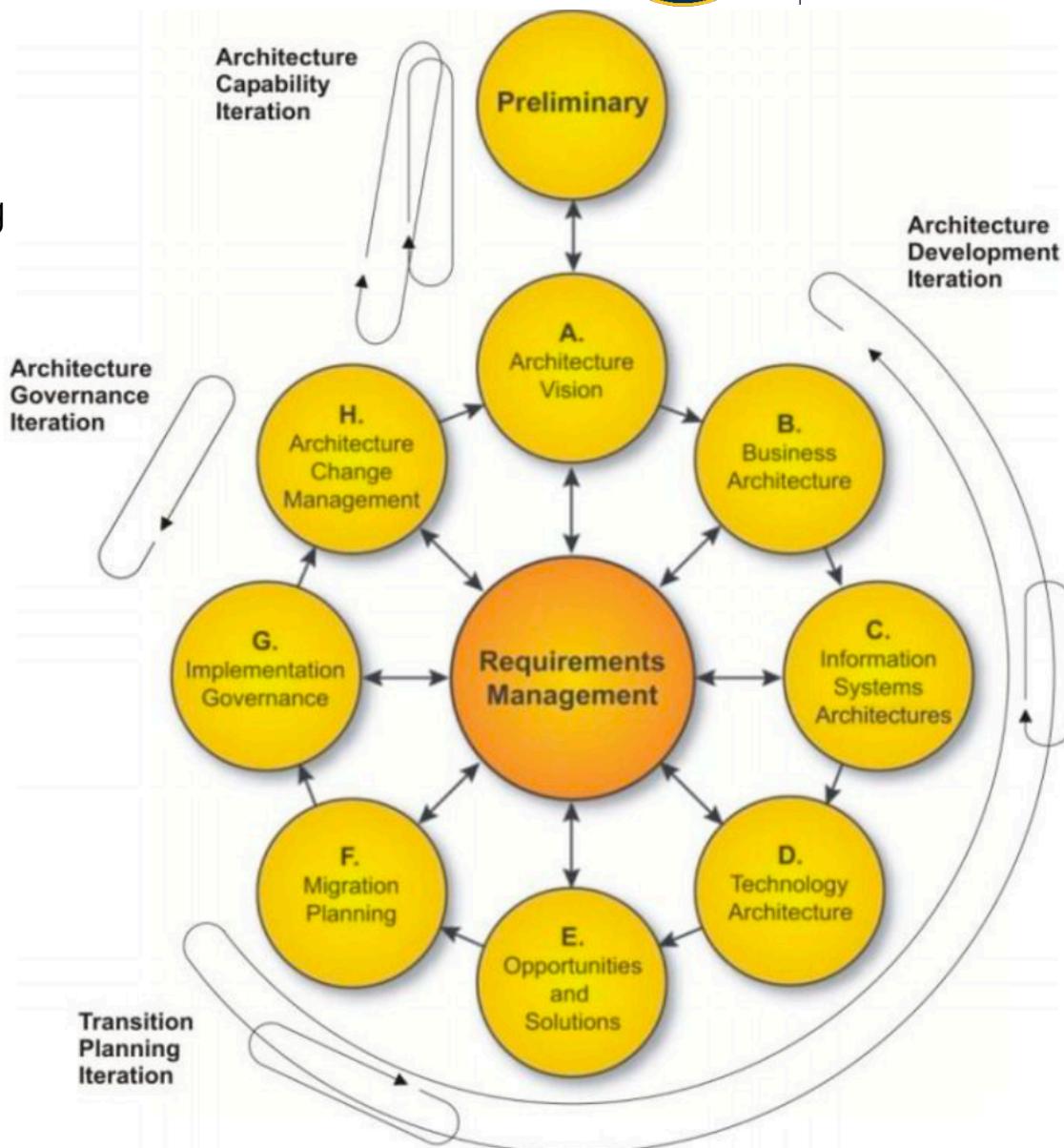
SATU DATA  
INDONESIA



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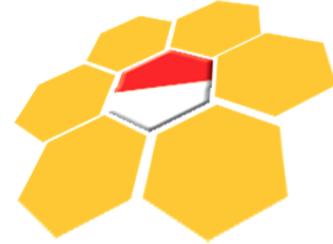
# FASE IMPLEMENTASI ENTERPRISE ARCHITECTURE



# **BSSN & BIG DATA**



# **BADAN SIBER DAN SANDI NEGARA**



# Indonesia Honeynet Project

# Log Monitoring

# splunk >

# Cyber Threat Intelligence



# OPENCTI



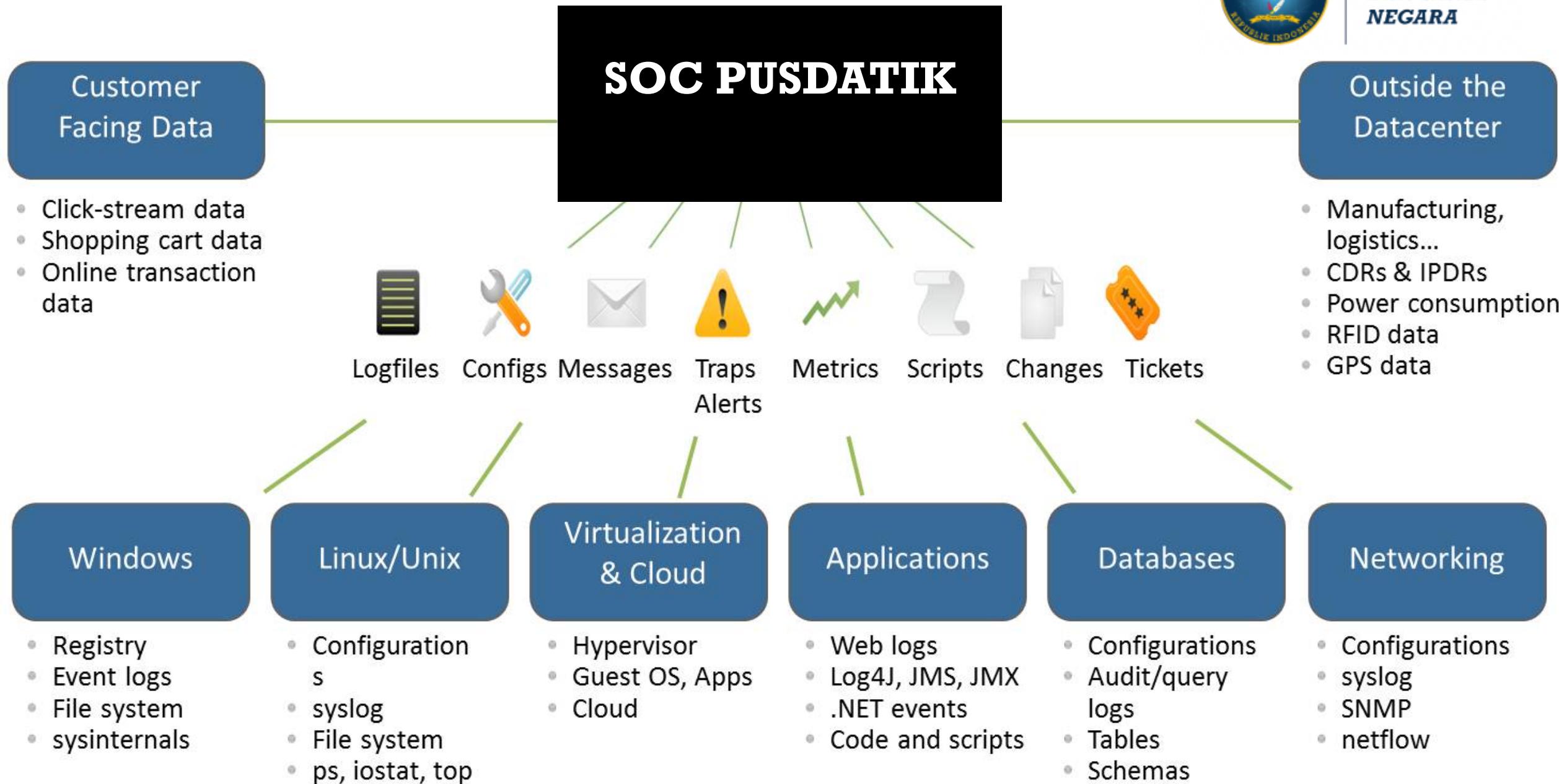
# MISP

## Threat Sharing

# Security Operation Center



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# HONEYNET PROJECT BSSN



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# CYBER THREAT INTELLIGENCE

## ANALYTICS

115+ MILLION  
node graph-based analytics engine

340 MILLION  
correlation relationships defined

OVER 600 TERABYTES  
of analytics storage

212 PETABYTES  
sensor traffic analyzed each month

45 BILLION URLs  
analyzed each month

## DATA SOURCES

Incident Response  
Over 100,000 incident response hours/year  
Hundreds of subject matter experts  
across 16 countries

SENSORS  
11 million sensors around the world  
deployed across 60 countries  
24x7x365 visibility through 6 worldwide SOCs

THREAT ANALYTICS  
Billions of events processed each day



## INTELLIGENCE

**DETECTION**  
Identify threats that other solutions miss  
7 million attacks detected each month  
Discovered 19 out of 36 zero days

**PROACTIVE**  
Stay a step ahead of the attacker by  
understanding motivations and techniques  
delivered across 40 technology partners  
40+ targeted industry profiles

**RESPONSE**  
Answer key questions and prioritize threats  
based on attacker context  
30+ advanced threat actors tracked  
300+ advanced malware families tracked  
10+ nation-state threat sponsor profiles



## **Pengelolaan Big Data di BSSN**

Penerapan Big Data di lingkungan Badan Siber dan Sandi Negara saat ini sudah dilakukan di beberapa sektor seperti : Monitoring/analisis Log, Honeynet, Cyber Threat Intelligence.

Pengembangan Big Data juga terus dilakukan dengan harapan BSSN dapat menghasilkan data untuk kepentingan Keamanan Siber Nasional.

# TERIMA KASIH

*Bersama BSSN Kita Aman dan Sejahtera*

