Variable Trust for BYOD & B
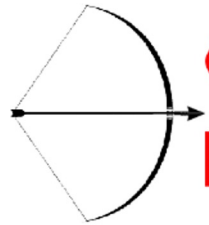
Jordan "Cancer" Scott
September 14, 2023

Code Talkers
Engineering

Agenda

1. Whoami (3 slides)
2. If...then...else (9 slides)
3. Biography (3 slides)
4. Baseball story (1 slide)
5. Real world cyber attack (12 slides)
6. Trustworthy (10 slides)
7. Falsification of False (23 slides)
8. Intermission (15min)
9. Whoru (5 slides)
10. do...while...loop (2 slides)
11. Home brew recipe (3 slides)
12. Another Baseball story (1 slide)
13. Fake world cyber attack (12 slides)
14. Worthy Trust (11 slides)
15. Fact or Crap: The Game! (1 slides)
16. Closing

96 slides 30 minutes.

Let's go!!!!

Cyber Recon Project for USCYBERCOM

University of Colorado Colorado Springs
(UCCS)

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Student Team:
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Katrina Rosemond
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Sharing knowledge is not about giving people something, or getting something from them. That is only valid for information sharing. Sharing knowledge occurs when people are genuinely interested in helping one another develop new capacities for action; it is about creating learning processes.

— Peter Senge —

Qrljacking

QRLJacking or Quick Response Code Login Jacking is a simple social engineering attack vector capable of session hijacking affecting all applications that rely on "Login with QR code" feature as a secure way to login into accounts. In a simple way, In a nutshell victim scans the attacker's QR code results of session hijacking.

https://www.linkedin.com/posts/jordan-cancer-scott_this-was-fun-enjoy-the-laughs-activity-7042621607512592384-x7gZ

Zero Trust

Zero trust (ZT) provides a collection of concepts and ideas designed to minimize uncertainty in enforcing accurate, least privilege per-request access decisions in information systems and services in the face of a network viewed as compromised.

Trust Me, I'm an Engineer

"Make sure your submission is strictly educational and not a commercial or sales pitch, our subject matter experts quickly eliminate anything 'sales pitchy' or vendor specific"

This is not the language this conference used. But many do.

Not Future Proof ! ! ! !

BYO...

BYOB?

THIS BEER TASTES LIKE
I'M NOT GOING TO WORK TOMORROW

$$\frac{W_h \times AA\% \times U_{aa}}{(V_w \times 1.34)} = \text{BITTERNESS*}$$

WEIGHT OF THE HOPS
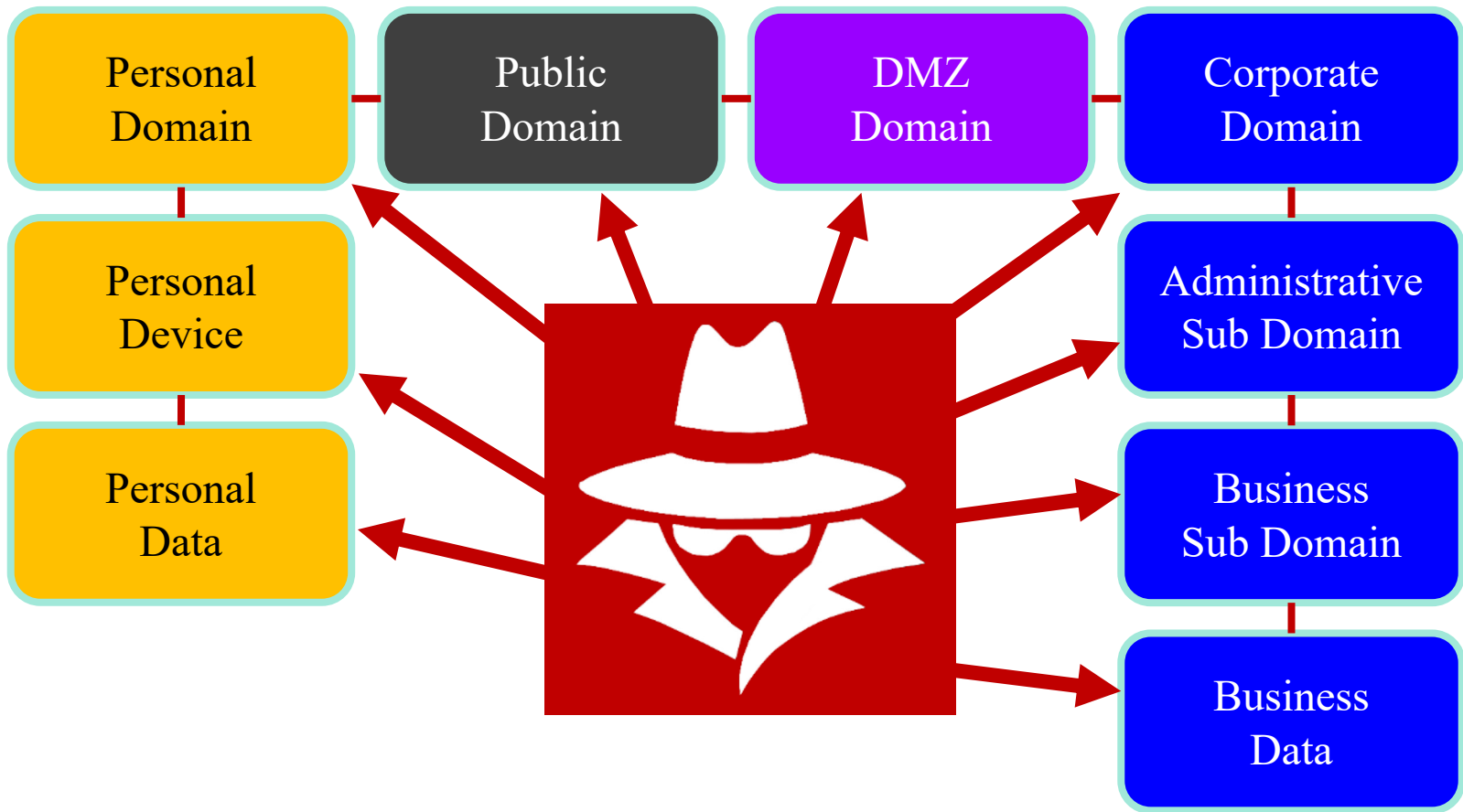
ALPHA ACID PERCENTAGE

HOW MUCH ALPHA ACID IS USED DURING THE BOILING PROCESS

VOLUME OF WORT IN GALLONS

ADJUSTMENT TO ACCOUNT FOR U.S. CUSTOMARY UNITS

(*international bitterness units, specifically)

Only Wine

Personal Domain	Public Domain	DMZ Domain	Corporate Domain

Personal Device

Administrative Sub Domain

Personal Data

Business Sub Domain

Business Data

Bring Your Own Device (BYOD) Corporate / Administrative / Business

Personal Domain

Personal Device

Personal Data

Business Data

Public Domain

DMZ Domain

Corporate Domain

Administrative Sub Domain

Business Sub Domain

Business Data

Trust…

"When a cat closes its eyes around you it means it trusts you"
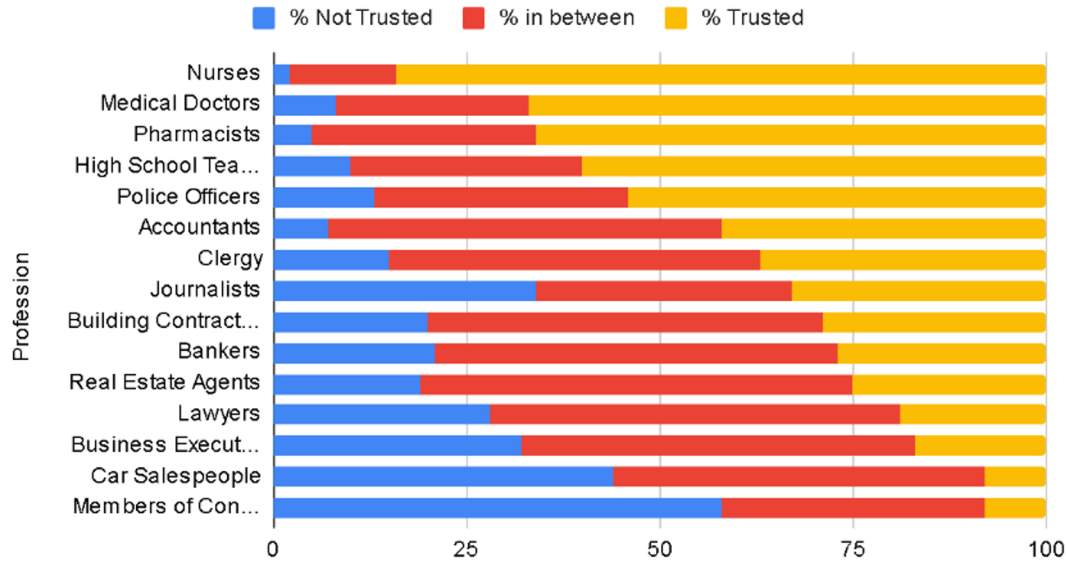My cat:

Zero Trust Tenets

1. All data sources and computing services are considered resources
2. All communication is secured regardless of network location
3. Access to individual enterprise resources is granted on a per-session basis
4. Access to resources is determined by dynamic policy—including the observable state of client identity, application/service, and the requesting asset—and may include other behavioral and environmental attributes.
5. The enterprise monitors and measures the integrity and security posture of all owned and associated assets
6. All resource authentication and authorization are dynamic and strictly enforced before access is allowed.
7. The enterprise collects as much information as possible about the current state of assets, network infrastructure and communications and uses it to improve its security posture.
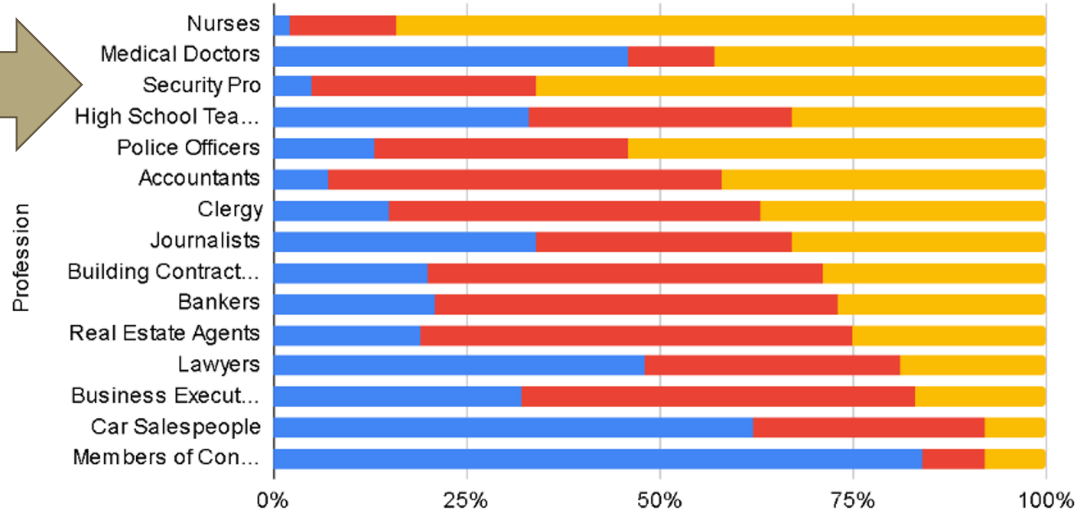
Trusted Professions

Trusted Profession Chart, 2018

■ % Not Trusted ■ % in between ■ % Trusted

Profession: Nurses, Medical Doctors, Pharmacists, High School Tea..., Police Officers, Accountants, Clergy, Journalists, Building Contract..., Bankers, Real Estate Agents, Lawyers, Business Execut..., Car Salespeople, Members of Con...

X-axis: 0, 25, 50, 75, 100

Trusted Professions

Trusted Profession Chart, 2023

■ % Not Trusted ■ % in between ■ % Trusted

Professions (top to bottom): Nurses, Medical Doctors, Security Pro, High School Tea..., Police Officers, Accountants, Clergy, Journalists, Building Contract..., Bankers, Real Estate Agents, Lawyers, Business Execut..., Car Salespeople, Members of Con...

X-axis: 0%, 25%, 50%, 75%, 100%

Y-axis label: Profession

n=1,025 U.S. adults

7% Beerme

Made Up Metrics Co

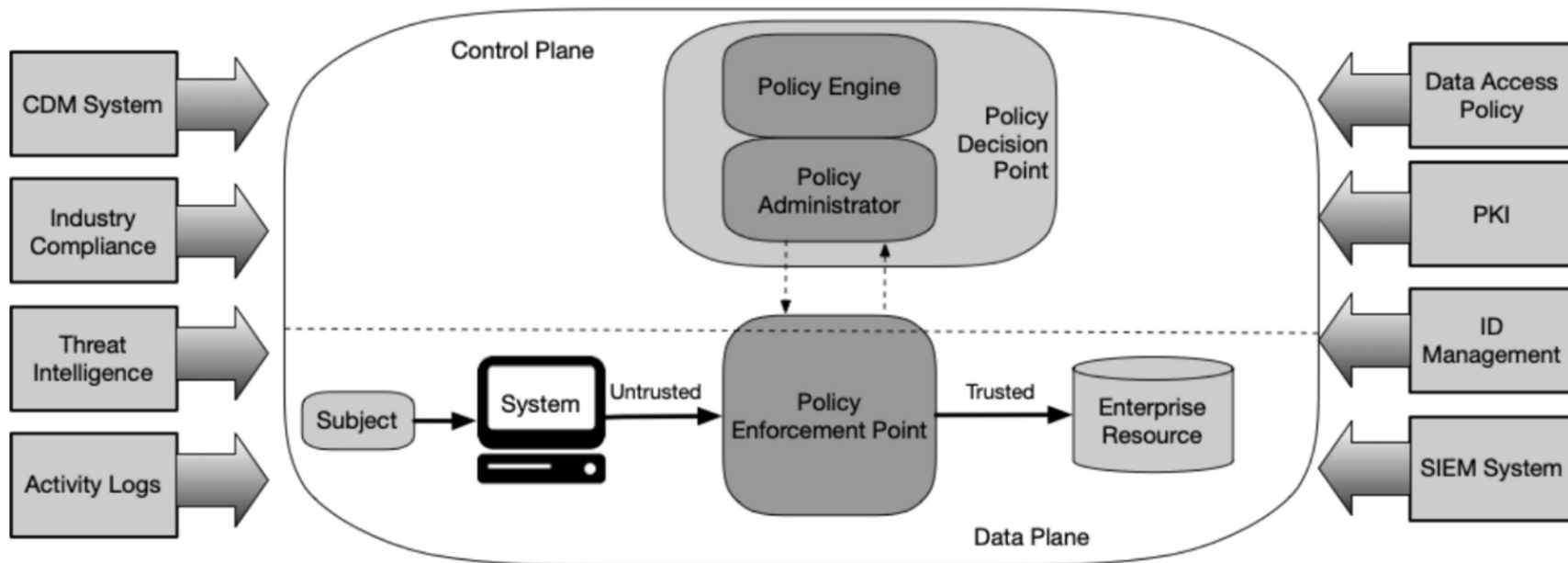# Zero Trust Architecture

Figure 2: Core Zero Trust Logical Components
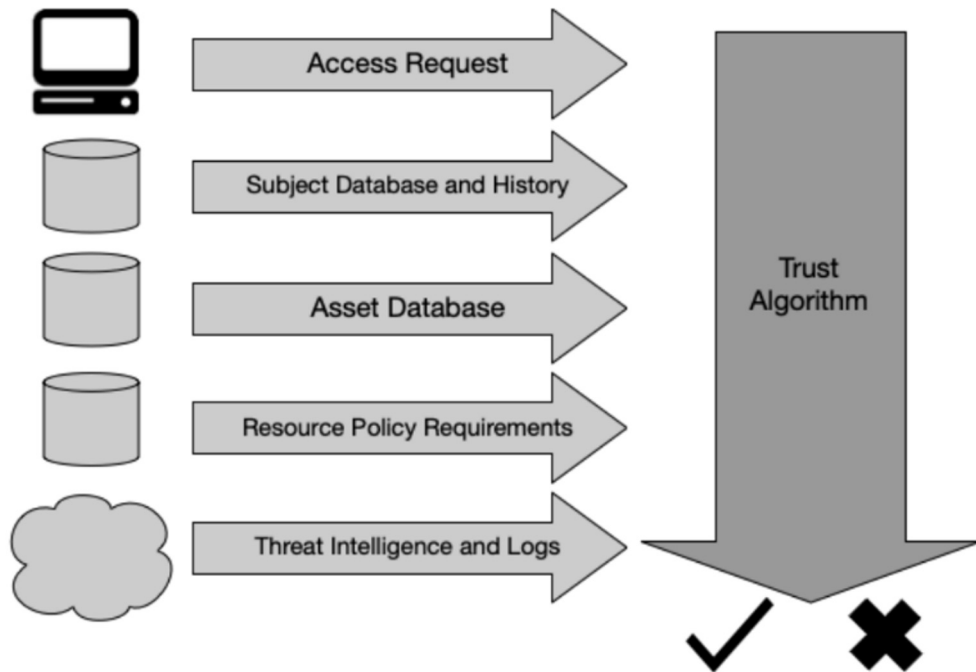
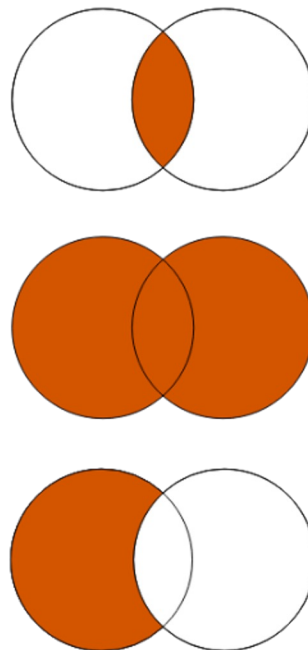# Zero Trust == Boolean Trust
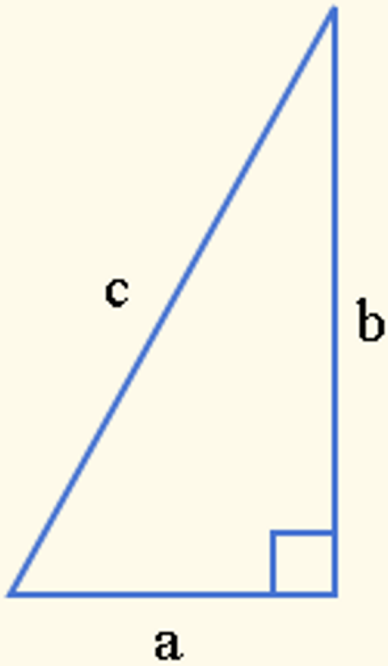

Figure 7: Trust Algorithm Input

Zero Trust Concept Issues

- Not humanistic to never build trust
- Pass / Fail algorithm can result in self-denial of service
- Subjective supporting information
- One directional trust model

Transparency builds Trust

Variable Trust…

Variable Trust

- Beau Houser, chief information security officer for the Small Business Administration, defended the model at FCW's Aug. 6 Cybersecurity Summit, saying that "***the name is a bit misleading; it should be called variable trust.***"
    - https://gcn.com/cybersecurity/2019/08/when-zero-trust-really-means-variable-trust/297562/

- https://trustedadvisor.com/why-trust-matters/understanding-trust/understanding-the-trust-equation

The Trust Equation

$$T = \frac{C + R + I}{S}$$

T — Trustworthiness

C — Credibility

R — Reliability

I — Intimacy

S — Self-Orientation

Trusted Advisor
[ASSOCIATES LLC]

Trust Equation Variables

CREDIBILITY - has to do with the words we speak. In a sentence we might say, "I can trust what she says about intellectual property; she's very credible on the subject."

RELIABILITY - has to do with actions. We might say, "If he says he'll deliver the product tomorrow, I trust him, because he's dependable."

INTIMACY - refers to the safety or security that we feel when entrusting someone with something. We might say, "I can trust her with that information; she's never violated my confidentiality before, and she would never embarrass me."
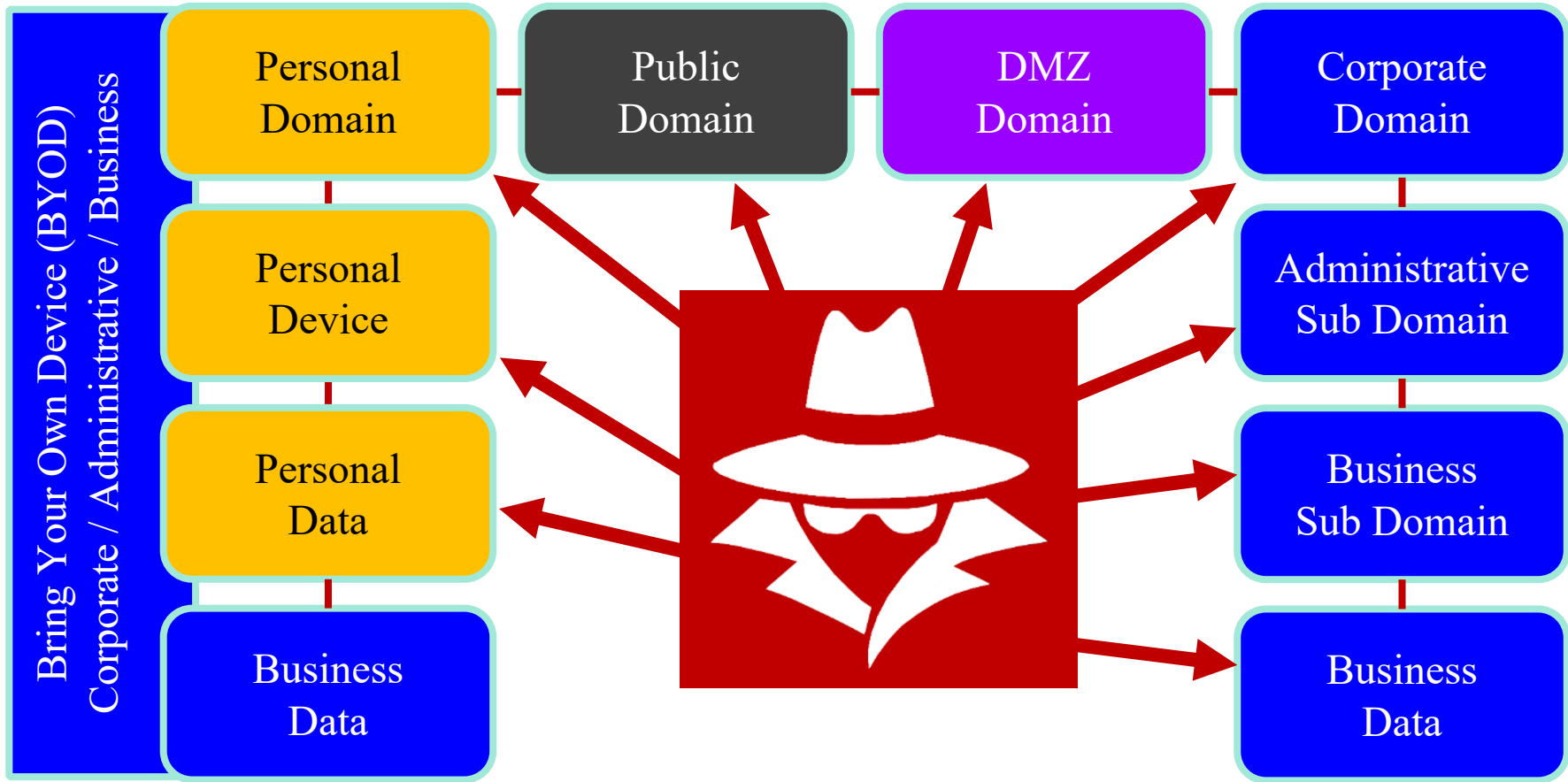
SELF-ORIENTATION - refers to the person's focus. In particular, whether the person's focus is primarily on him or herself, or on the other person. We might say, "I can't trust him on this deal — I don't think he cares enough about me, he's focused on what he gets out of it." Or more commonly, "I don't trust him — I think he's too concerned about how he's appearing, so he's not really paying attention."

Trust Questions

- How long have I known you?

- Have your actions caused me to question you?

- Do we have a mutually trusted friend?

- How long were we apart?

- Why did you respond that way?

- What is your body language telling me?

- Why does your appearance not match previous appearances?

- When would I be willing to tell you my deepest secrets?

Variable Trust for BYOD

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Questions?

- The supportive question
- The selfless question
- The tough-but-fair question
- The practical recommendation
- The think-outside-the-box prompt
- The tell-me-what-else-you-know question
- The I-couldn't-disagree-more question