“Assume Breach”

A Network Security Engineer Perspective

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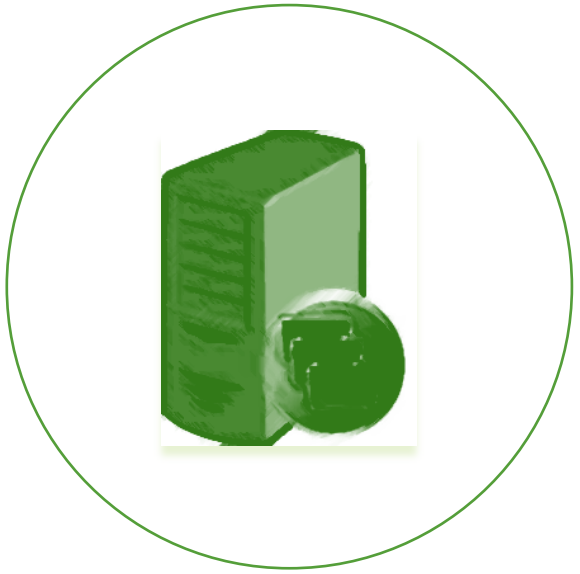
Network Security Pre-Digital Transformation

Clear and Clean-cut Segmentation

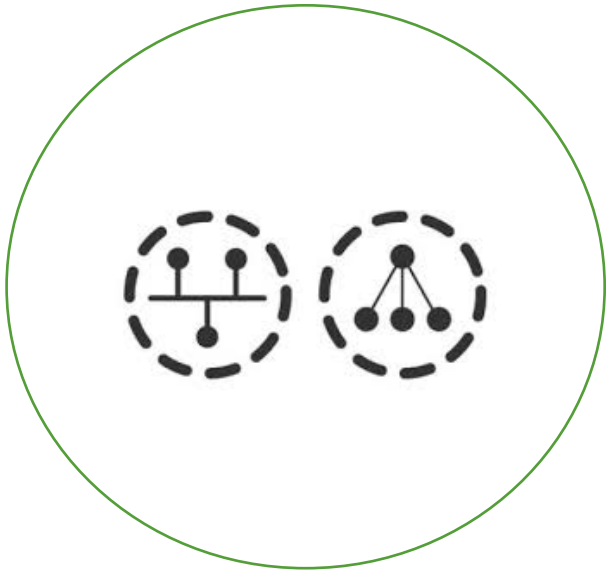
Perimeter Firewalls

Simple Zoning: Trust-Untrust-DMZ



Simple Application Patterns

Monolithic or Layered (typically 3) App. Architecture



VLAN based Segmentation

Inter-VLAN static Layer 3 or 4 based Policies

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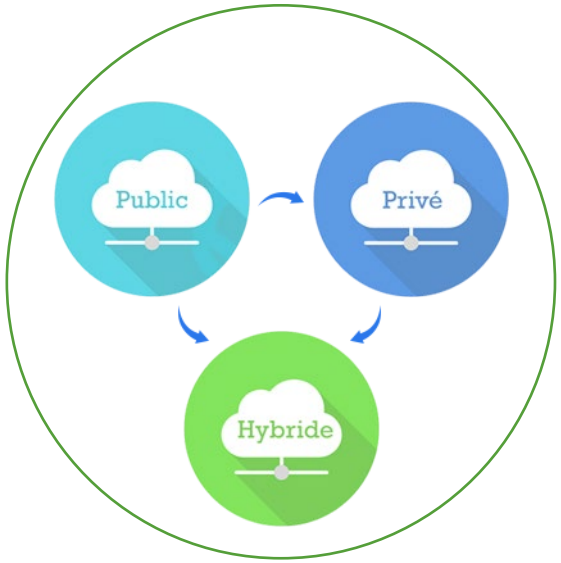
Network Security Today

Where, How, and When to Segment?

The Perimeter Vanished.

Trust is lost



The World is Hybrid.

Crown Jewels Everywhere

Microservices & APIs Exploded.

Open Communication

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Protection against persistent attackers is

Not Enough

Detection of sophisticated attacks is

Tough

Assume Breach Mindset

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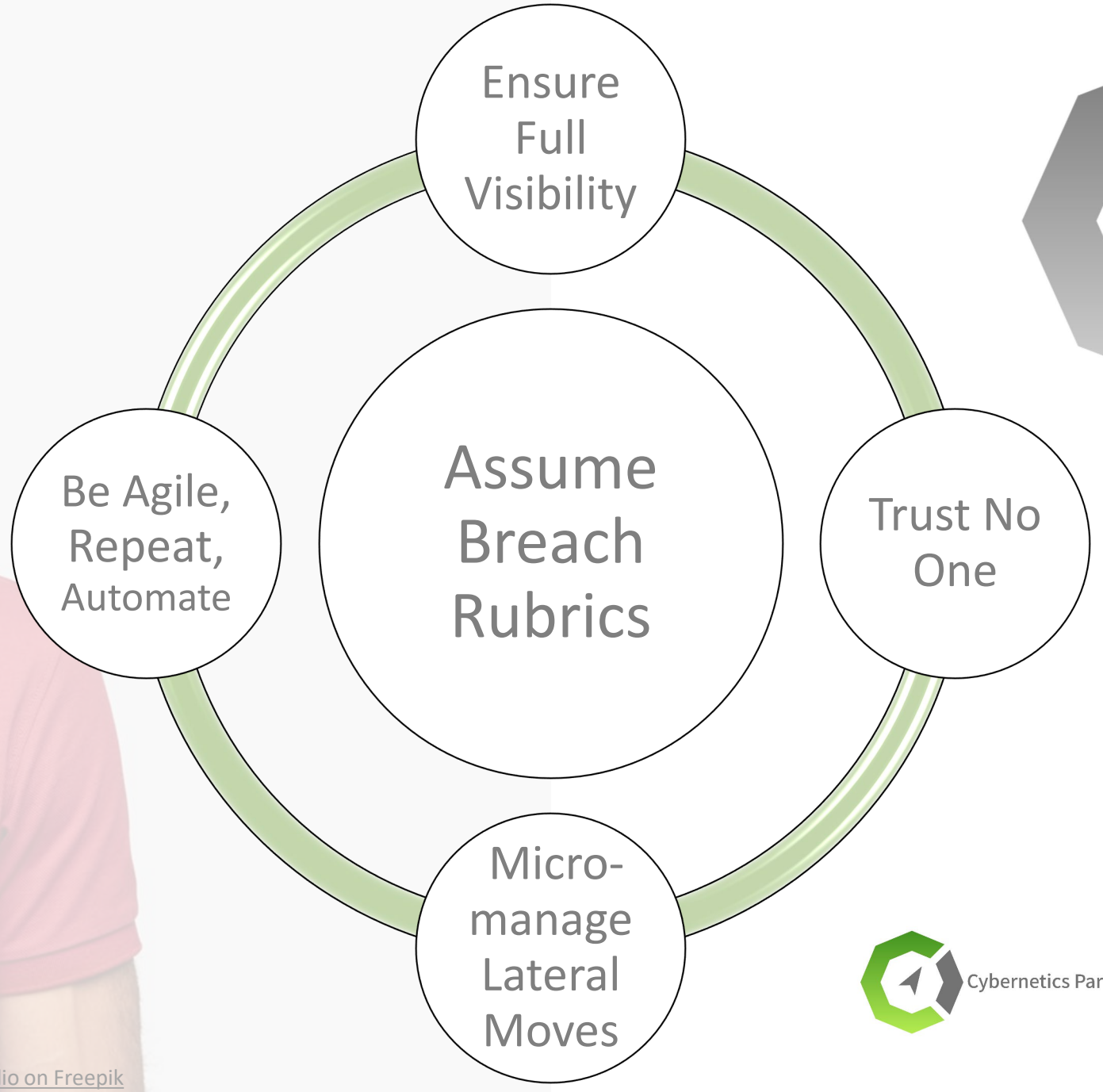
Image by wayhomestudio on Freepik



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Apply Full Visibility

Cover of all attack surfaces and environments

(Bare metal, Virtual, Containers, IoT, OT)

Tap all traffic directions

East-West (lateral) is a Must

Discover all Workloads, Repeat (Forever)

Context Based Identification and Flow Mapping

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Trust No One

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Isolate, Segment

Default to an implicit Deny

Practice Zero tolerance for IP address or TCP/UDP based access only policies.

Demand Identity and more Context to enforce fine-grained policies at Workload and Application level

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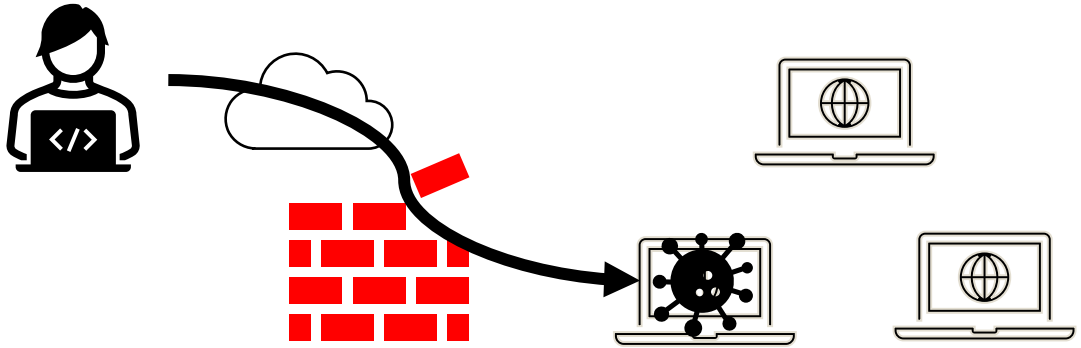
Micromanage Lateral Moves



Attackers already inside

Perimeter protection already bypassed

Now attackers moves are mainly lateral trying to reach the crown jewels

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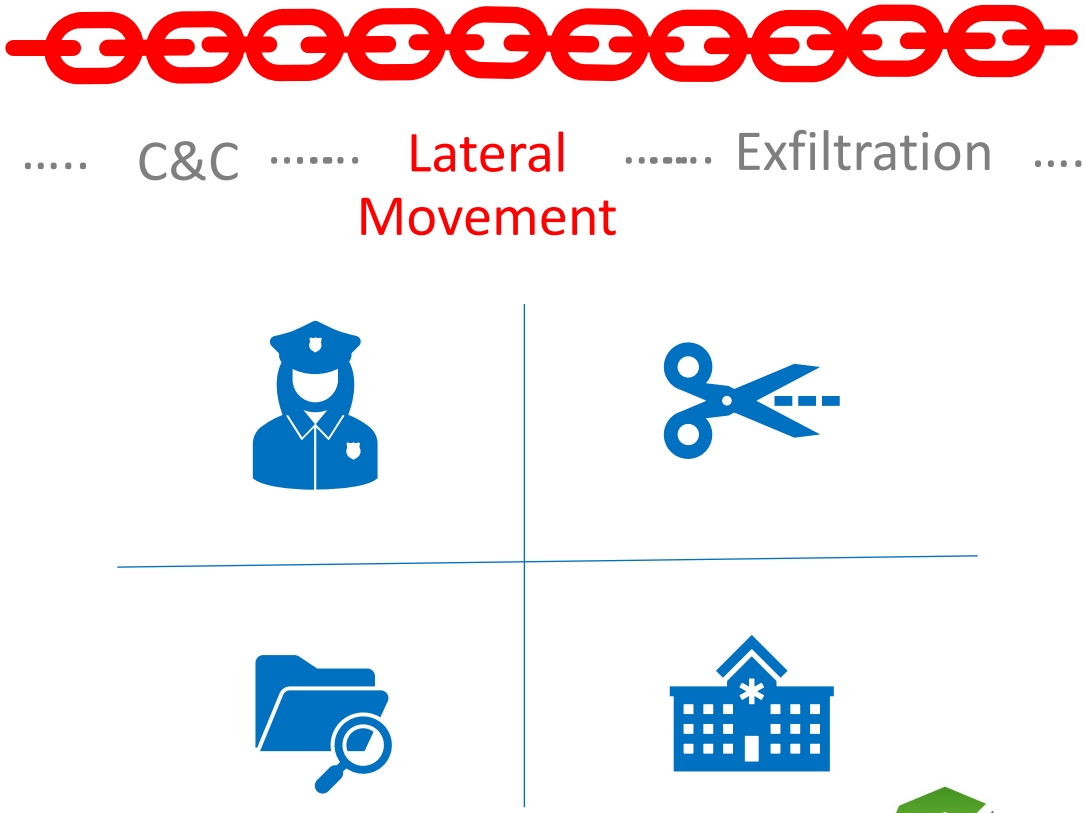
Micromanage Lateral Moves

Isolate and Microsegment with the objective to:

- Break the kill chain or at least slow down attackers
- Contain the Breach
- Enable more focused investigation
- Allow for Faster Remediation



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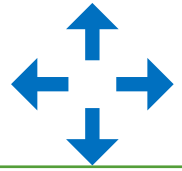
Be Agile, Repeat, Automate

Practice Agility



Adapt the continuous change of today's DevOps environment

Repeat Processes (forever)

Continuous Discovery, Deployment, Policy Identification & Enforcement

Automate to Enable Scale

Automate discovery, policy recommendation, and possibly policy enforcement

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Available Technology

Zero Trust Micro Segmentation (ZTMS)

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What to Look for in a ZTMS Solution?

Coverage of all attack surfaces and environments	 Tapping on all traffic directions	 Continuous Workload Discovery and Flow Mapping
 Recommendation and Enforcement of Fine-grained Context based policies	 Automation to Scale all Continuous Processes	 Integration with Ecosystem (Cloud, Identity, Firewalls, SIEM, Threat Feeds)

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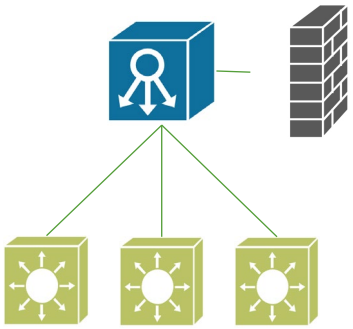
What are ZTMS Deployment Options?



Network Overlay

(taps onto Network controls)

Agent Based

Cloud Native (Provided by AWS, Azure, Google…)

API Based with Cloud Providers

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Recommendations

Adopt Zero Trust Micro Segmentation as integral part of your Zero Trust Strategy and Architecture

Micro segmentation is not a hype or a panic response but an evolved long-awaited architecture

Identify Your Organization Use Cases

Flow mapping, Isolation, or Breach containment

Select the Best Fit Solution

Tightly integrates with your enterprise architecture & workload environment and provides the granular identification & policy control needed

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Final Recommendations

Two words:

“Assume Breach”