Cyber Preparedness

> A Proactive Response to Infiltration

Colin McKinty
Vice President, Cyber Strategy for the Americas
colin.mckinty@baesystems.com

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Cyber Preparedness

How To Get Started

Take A Proactive Stance

Be Ready to Respond

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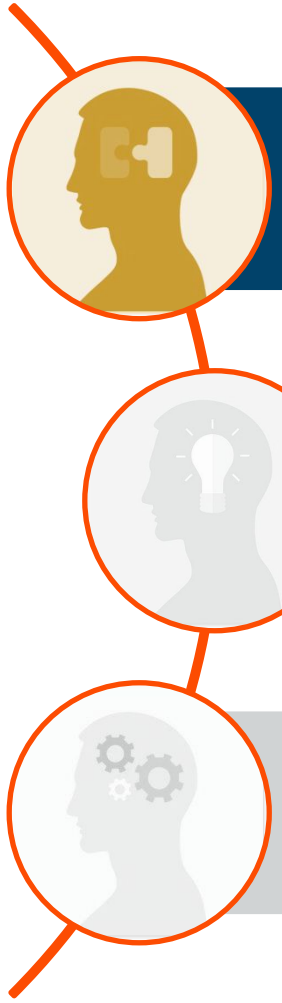

How To Get Started

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Where Does Cyber Preparedness Begin?

Technology?

Security team?

Processes?

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It starts with The Board.

It is driven by a culture where cyber risk is addressed as part of operational risk

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Why Should They Care?

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The Obvious

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Reducing Risk.

Enables Growth.

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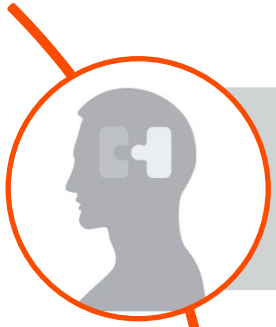

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- Fire started in a NJ home last year
- A driver saw the fire and banged on the front door until someone answered
- The alarms went off -- afterward
- The family inside escaped
- Fireman eventually got control
- Happy ending … but what if the driver did not stop?
- Also, almost one year later, re-construction is just starting

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Effective Smoke Detection

- Consider where you replace them
- Ensure the batteries work
- Monitor and maintain

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Have a Plan for When the Alarm Goes Off

- Think of this as Incident Response
- The value of knowing someone is looking after you … ready to bang on your door when fire starts

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- What if there's a "fire" in your network?
- What if the alarms don't go off right away or if you don't have the right alarms in place?
- What kind of damage could that do if your business took a year to get back to normal?
- Also, consider the scenario where your entire operation "burns to the ground"

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Hierarchy of Security Needs

To be fully prepared and avoid disasters:

- Detect new, hidden threats
- Effectively and efficiently respond
- Reduce the time & resources required in the detection to resolution phase

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Prevention: Still Important

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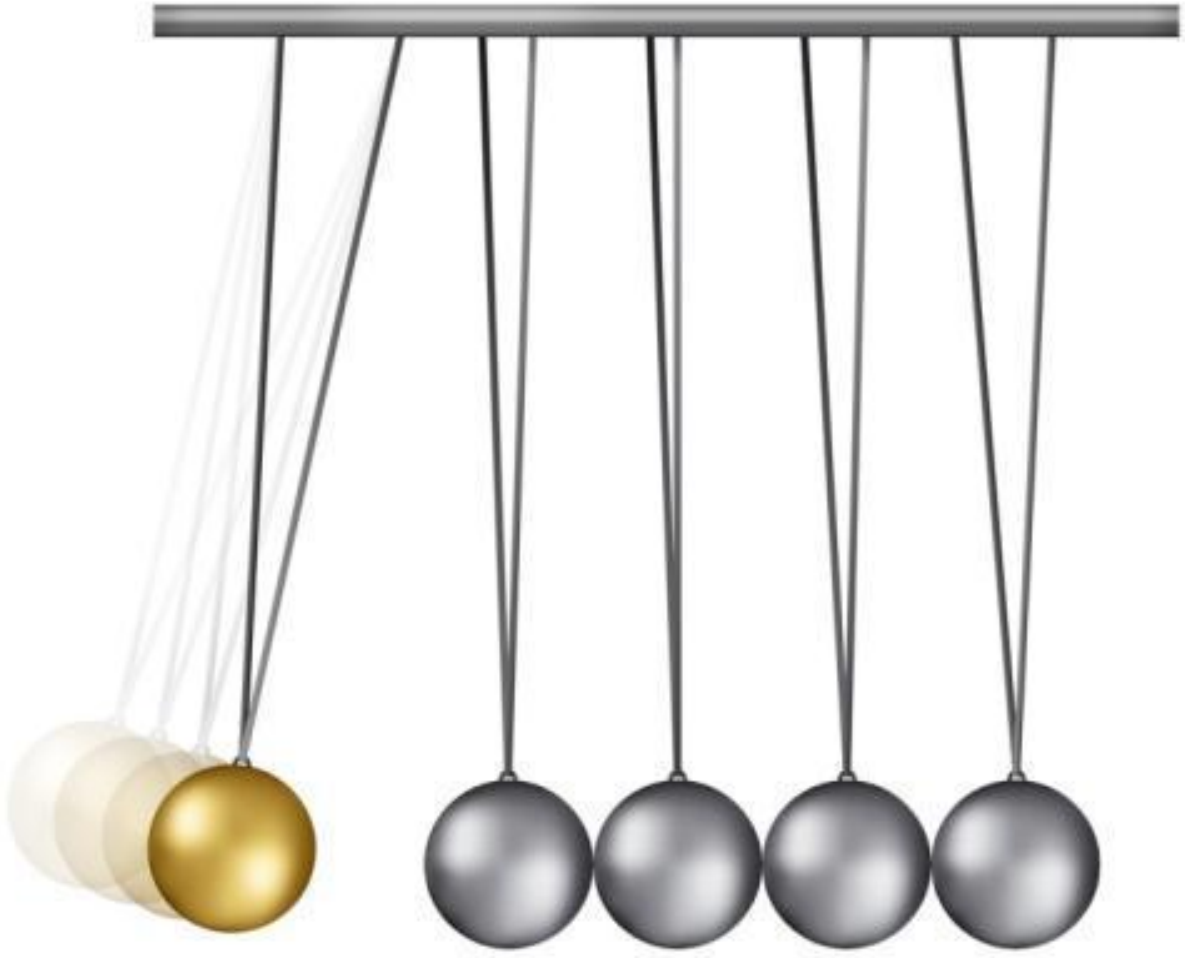
Balancing Spend Allocations

Prevention

Detection

Response



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The ability to respond to an incident is only as good as an organization's ability to …

detect the incident.

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Detection

> Why It's Challenging

- Too many bad guys/attacks
- Bad guys don't want to be found
- Attacks take new forms every day
- Sophisticated APT and targeted attacks routinely circumvent existing security defenses
- The longer they stay undetected, the greater the financial damage and sensitive data loss

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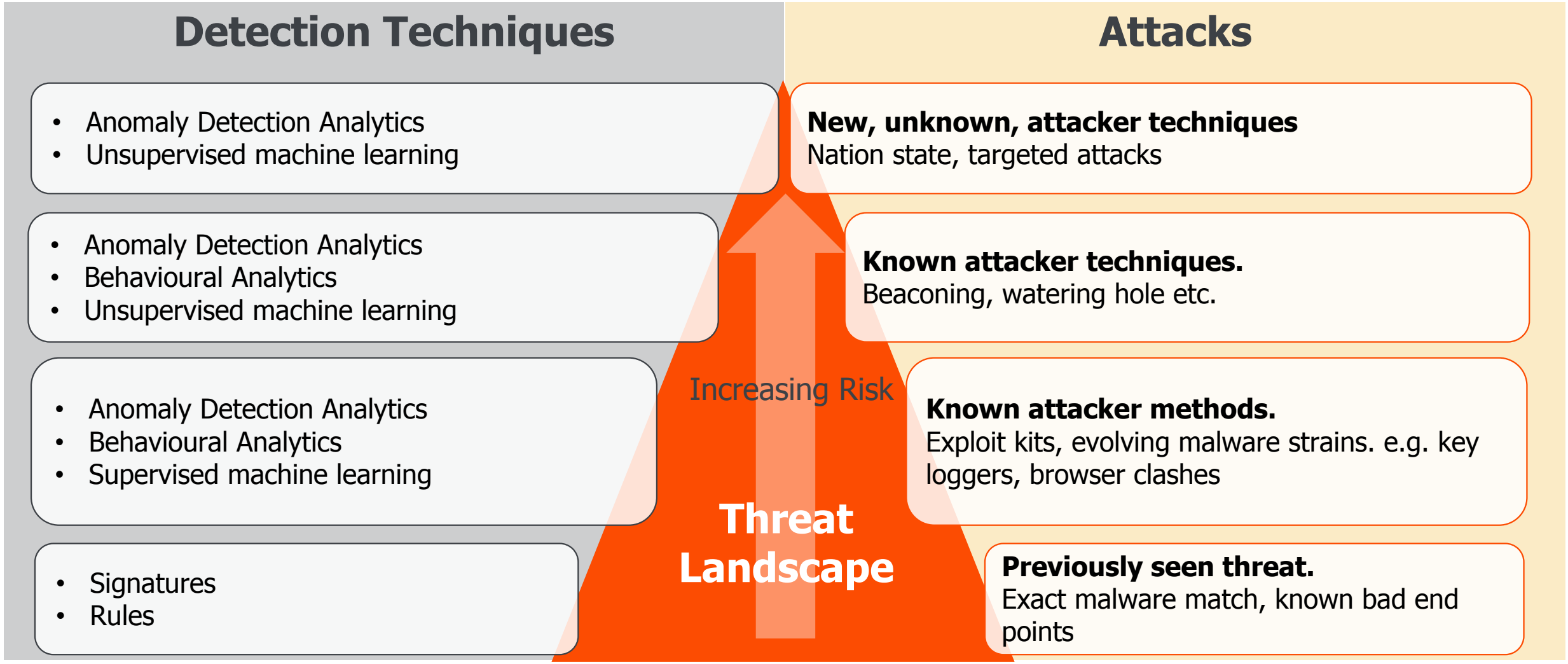
Analytics Techniques



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Characteristics of Behavioral Analytics

Potentially bad vs known bad

Enduring vs brittle

Risk based vs binary

Time range vs point in time

General vs specific case

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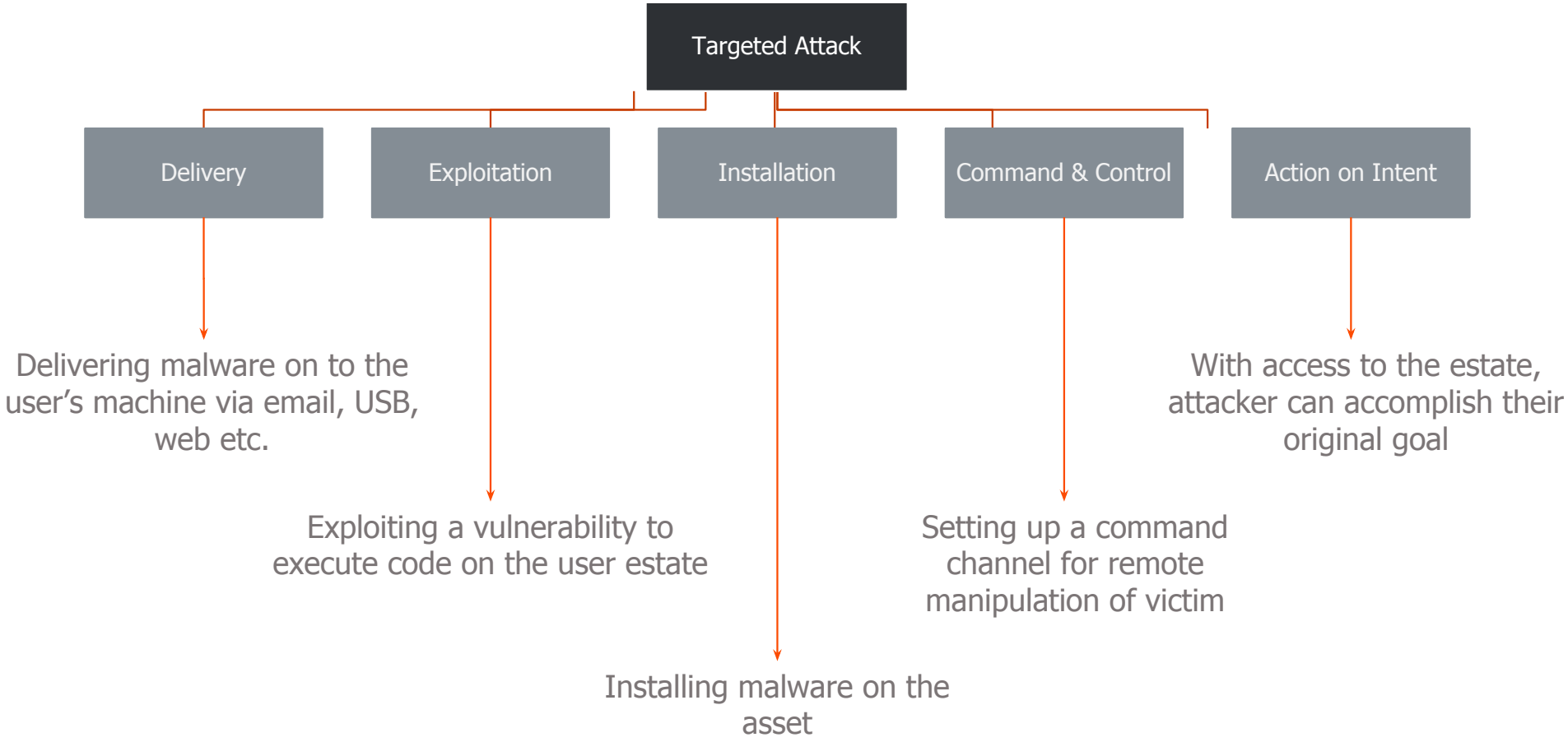
Detection needs to driven by a Threat model

Analytics are categorised by 'attack technique'. These are the stages an attacker has to go through to successfully complete an attack on a network.



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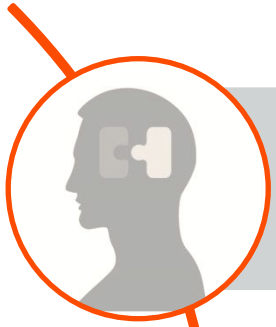

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Response

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Having proper analysis capabilities requires both trained personnel and the proper tools to perform the analysis.

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A PLAN
VS
A FRAMEWORK

"No plan of operations
extends with certainty
beyond the first encounter
with the enemy's main strength"

-- Helmuth Karl Bernhard Graf von Moltke

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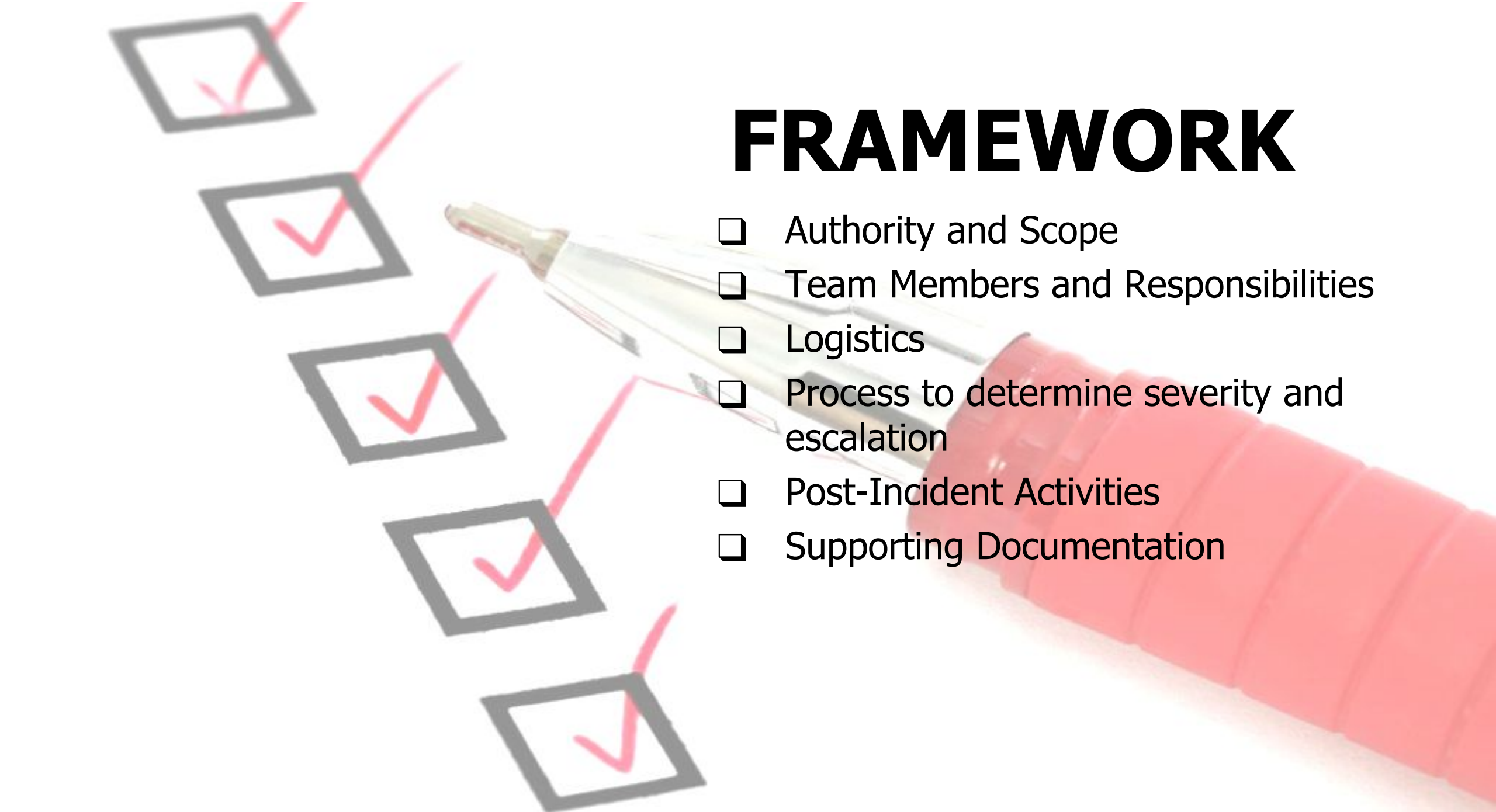

FRAMEWORK

- ❑ Authority and Scope
- ❑ Team Members and Responsibilities
- ❑ Logistics
- ❑ Process to determine severity and escalation
- ❑ Post-Incident Activities
- ❑ Supporting Documentation

The most critical component in any Incident Response Practice …

Authority and backing from executive management.

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IR Team

- Primary team
- Extended team
- Third parties

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Primary

- Security Team
- IR Lead
- Operations Team
- Service Desk Team

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Extended

- Executives
- Legal
- Communications
- Human Resources
- Compliance
- Physical Security

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3rd Parties

- Outsourced IT (help desk, server support)
- Forensic Firms
- ISPs
- Legal Counsel
- Law Enforcement
- Public Relations Teams

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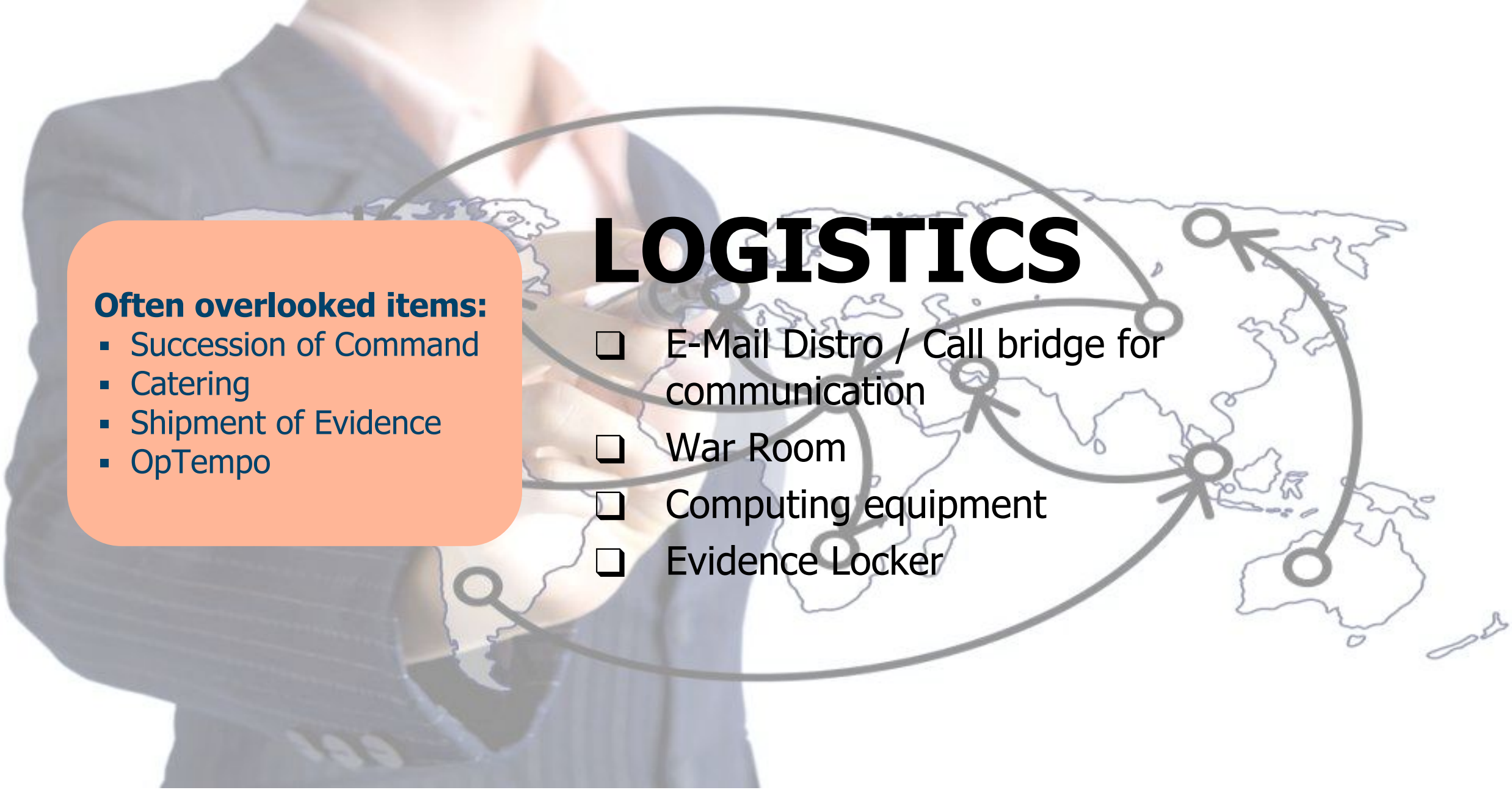

Often overlooked items:

- Succession of Command
- Catering
- Shipment of Evidence
- OpTempo

LOGISTICS

- ❑ E-Mail Distro / Call bridge for communication
- ❑ War Room
- ❑ Computing equipment
- ❑ Evidence Locker

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Testing Incident Response

- ❑ High Level Audit
- ❑ Objective Based Assessment
- ❑ Table top Exercise
- ❑ War Game

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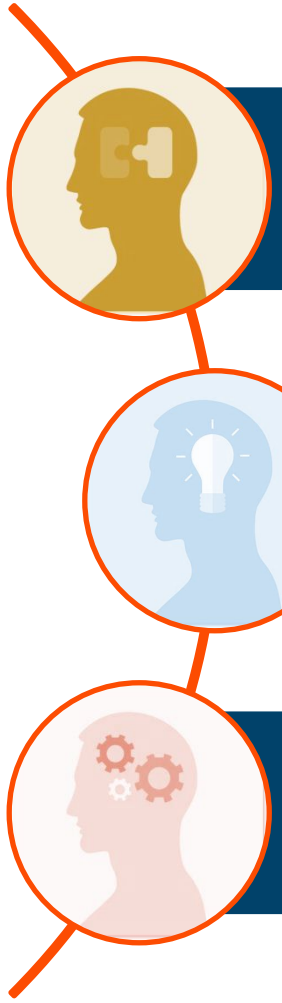
Cyber Preparedness – Key Takeaways



Begins With Preparedness Culture

Balancing Act; Varied Techniques

Turn IR Plan Into an IR Framework

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Thank You

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Q&A

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BAE Systems
Surrey Research Park
Guildford
Surrey
GU2 7YP
United Kingdom

T: +44 (0)1483 816000
F: +44 (0)1483 816144

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BAE Systems Applied Intelligence
Surrey Research Park
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