What Are the Implications of Infrastructure as Code and PCI DSS?

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Introduction to IaC and PCI DSS

PCI DSS

A set of baseline technical and operational requirements designed to protect account data.

Infrastructure as Code (IaC)

Managing and provisioning computer resources through machine-readable definition files, rather than hardware configuration or interactive tools.

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Intersection of IaC and PCI DSS

Integrating IaC with PCI DSS facilitates implementation of a secure, consistent, repeatable infrastructure.

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Traditional vs IaC Infrastructures

Hardware Devices / Traditional

- Manual, static configuration files
- Apply configurations to each device separately
- Not scalable
- High chance of misconfigurations

Cloud-Based / IaC

- Machine readable content convert to live configurations
- Apply multiple configurations simultaneously
- Consistent and scalable

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How Might Those Differences Be Represented?

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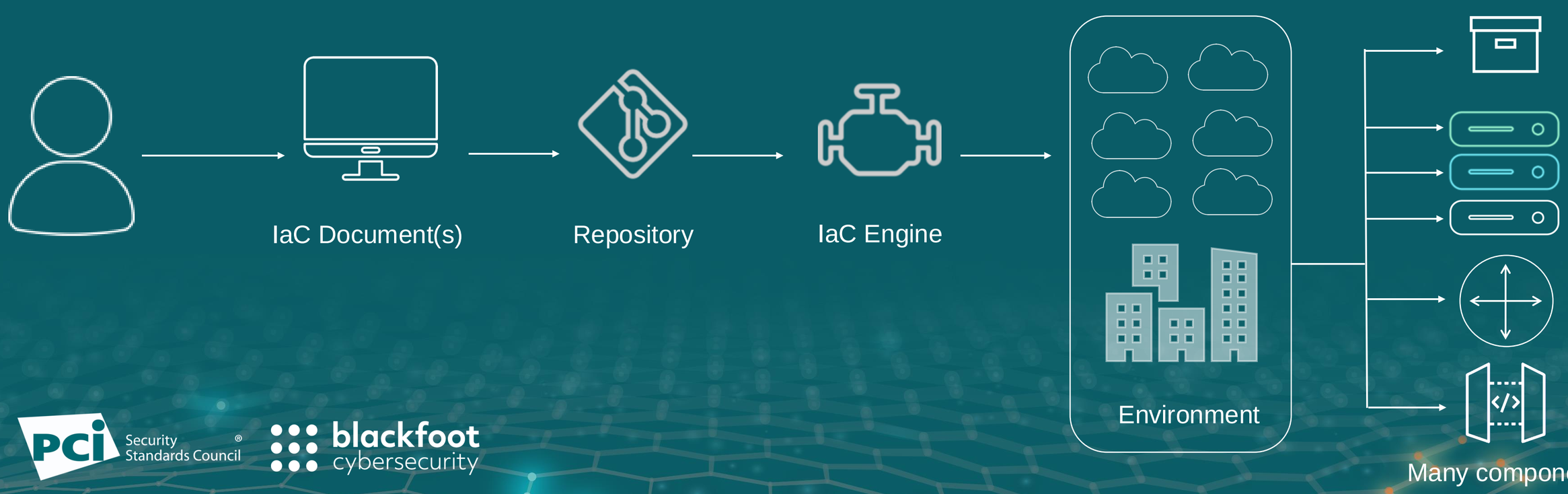

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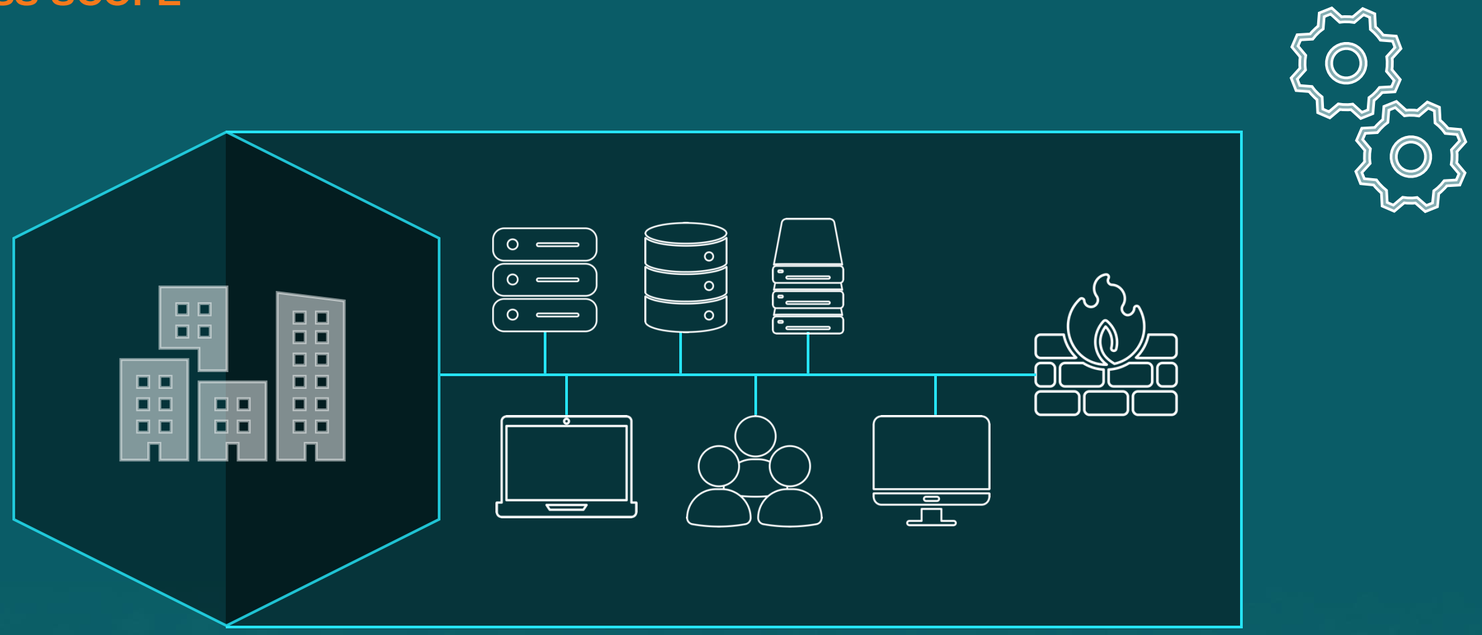
Traditional Infrastructures

PCI DSS SCOPE



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Repository Locations and Connectivity

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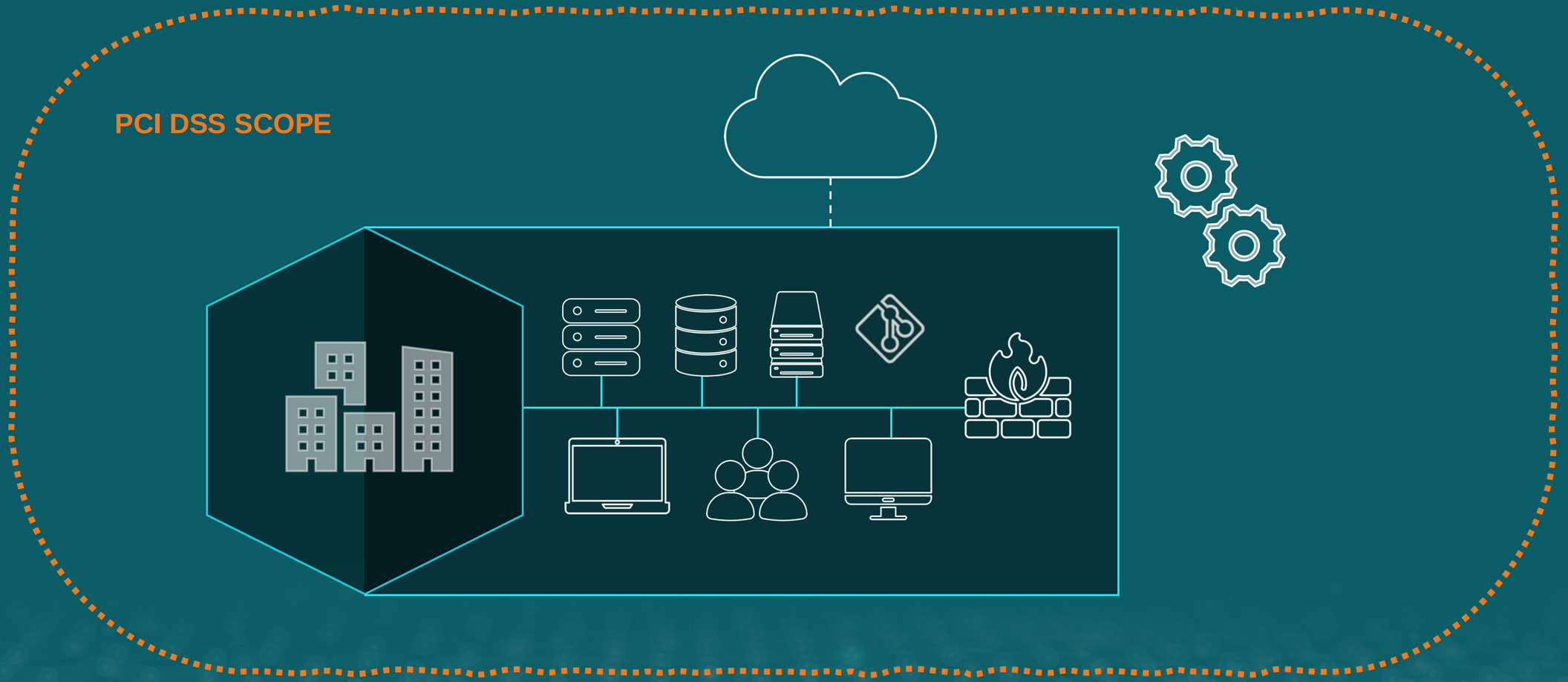

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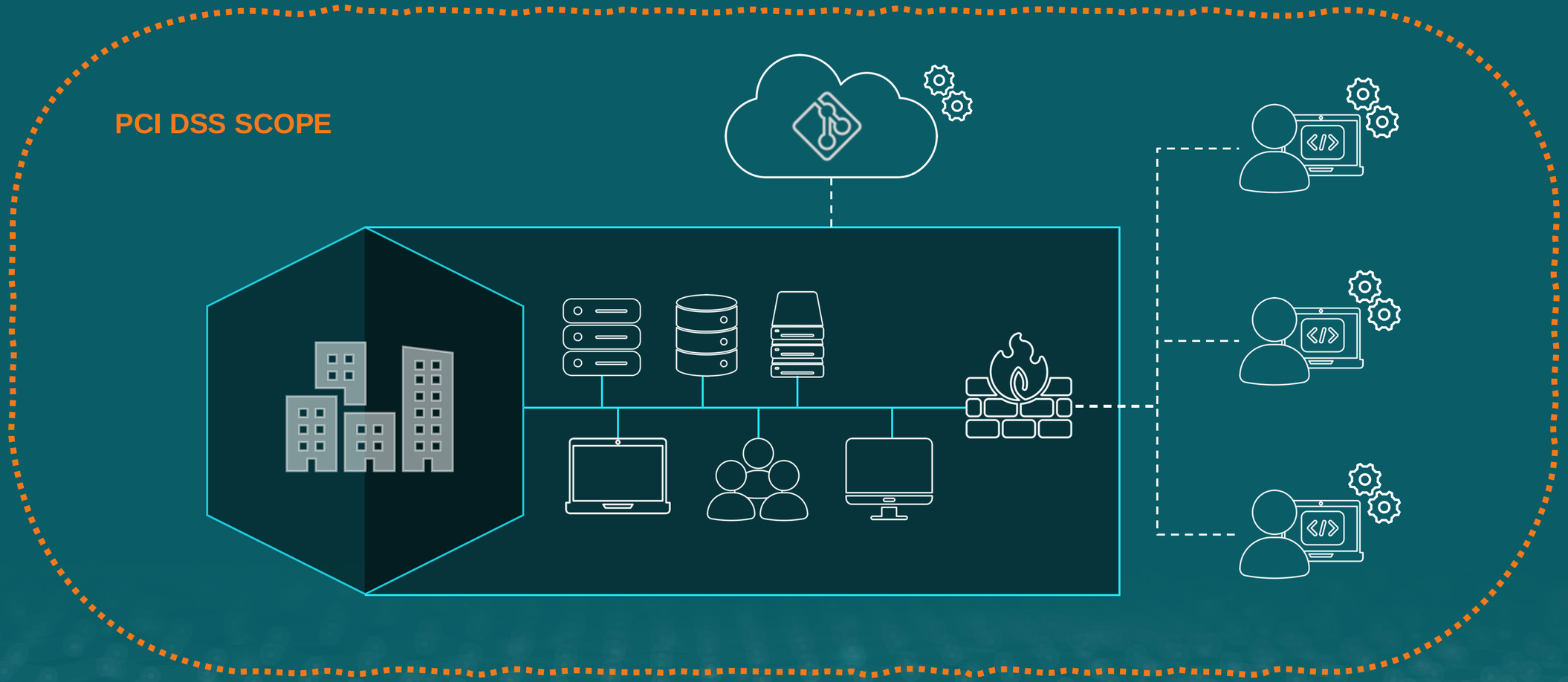
Endpoint Considerations and Scope Validation



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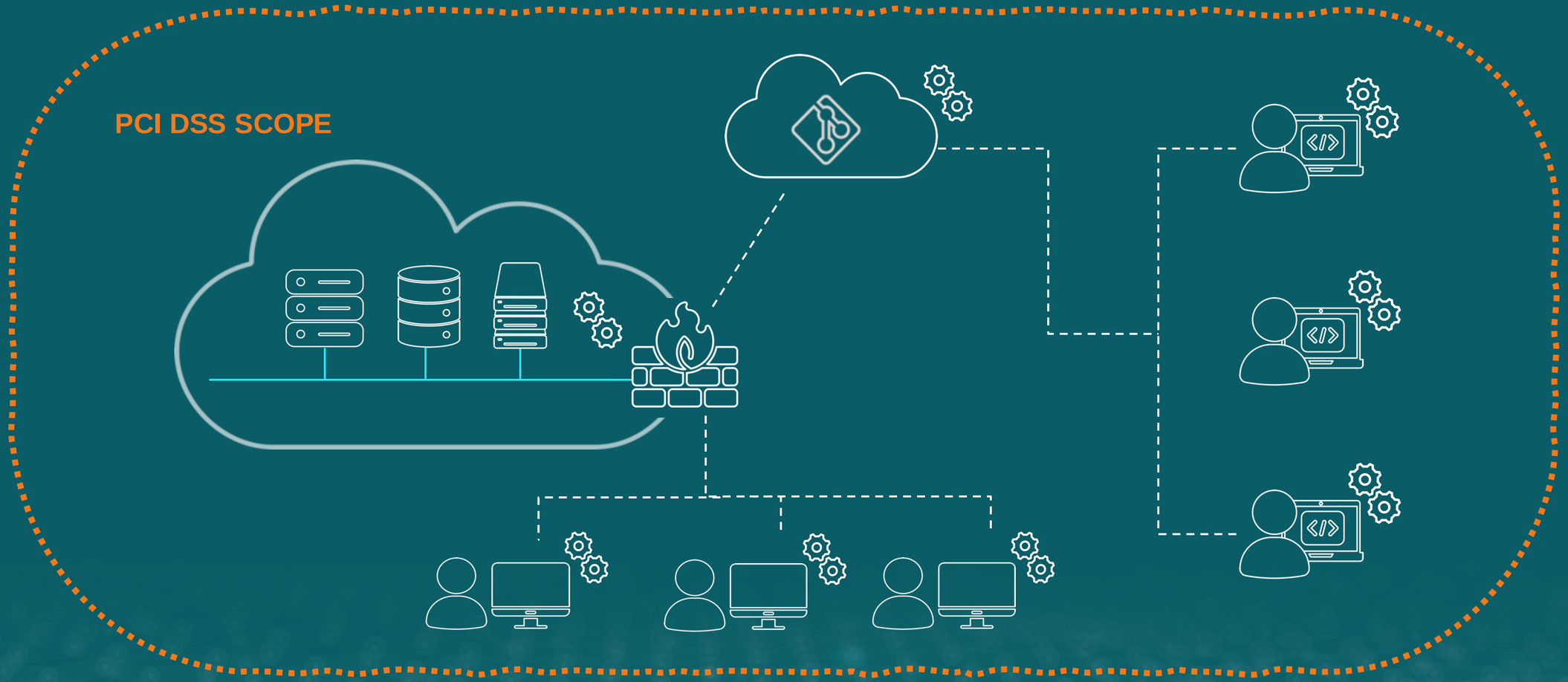
Cloud Considerations and Scope Validation



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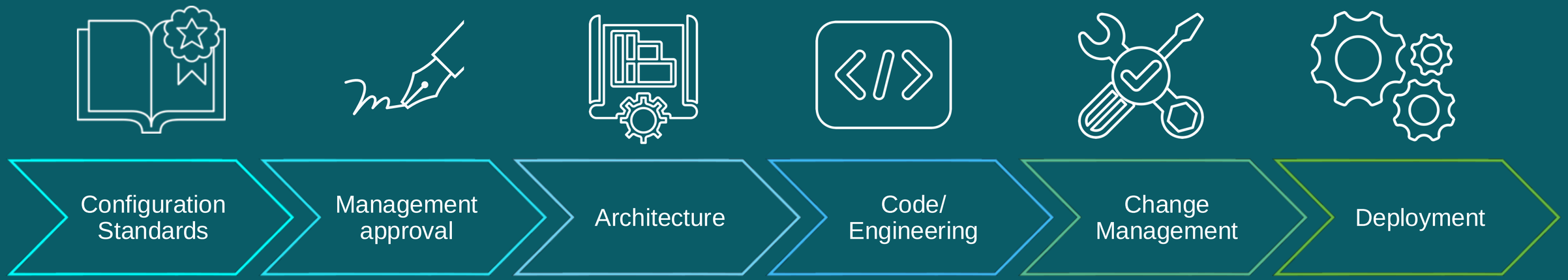
Steps to Infrastructure as Code



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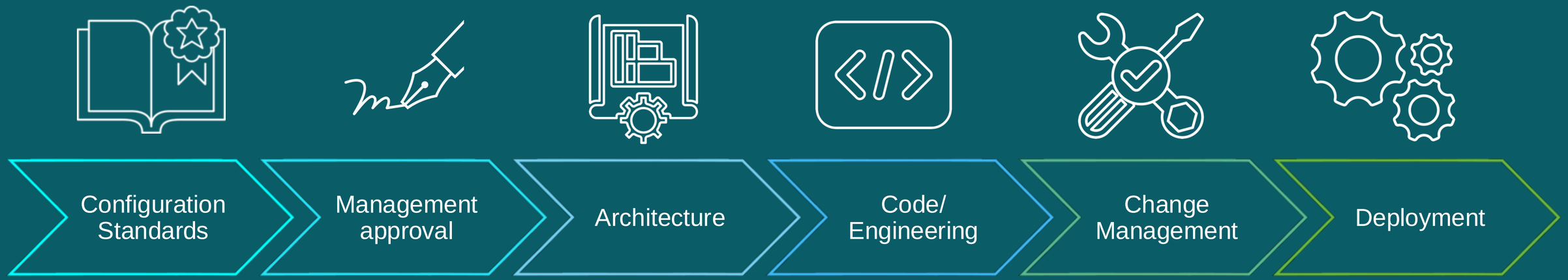

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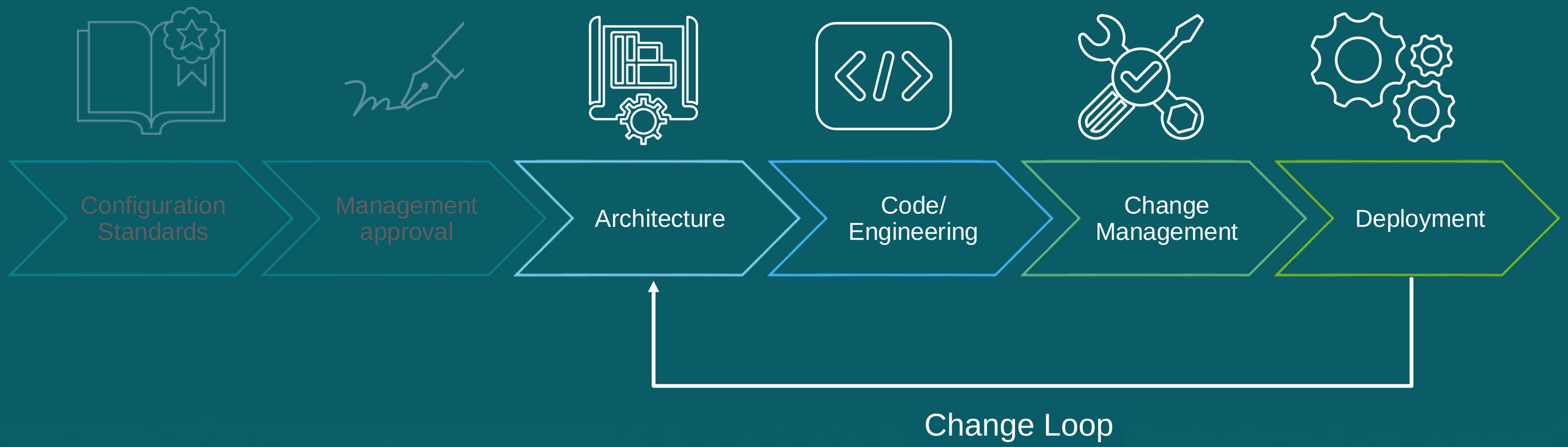

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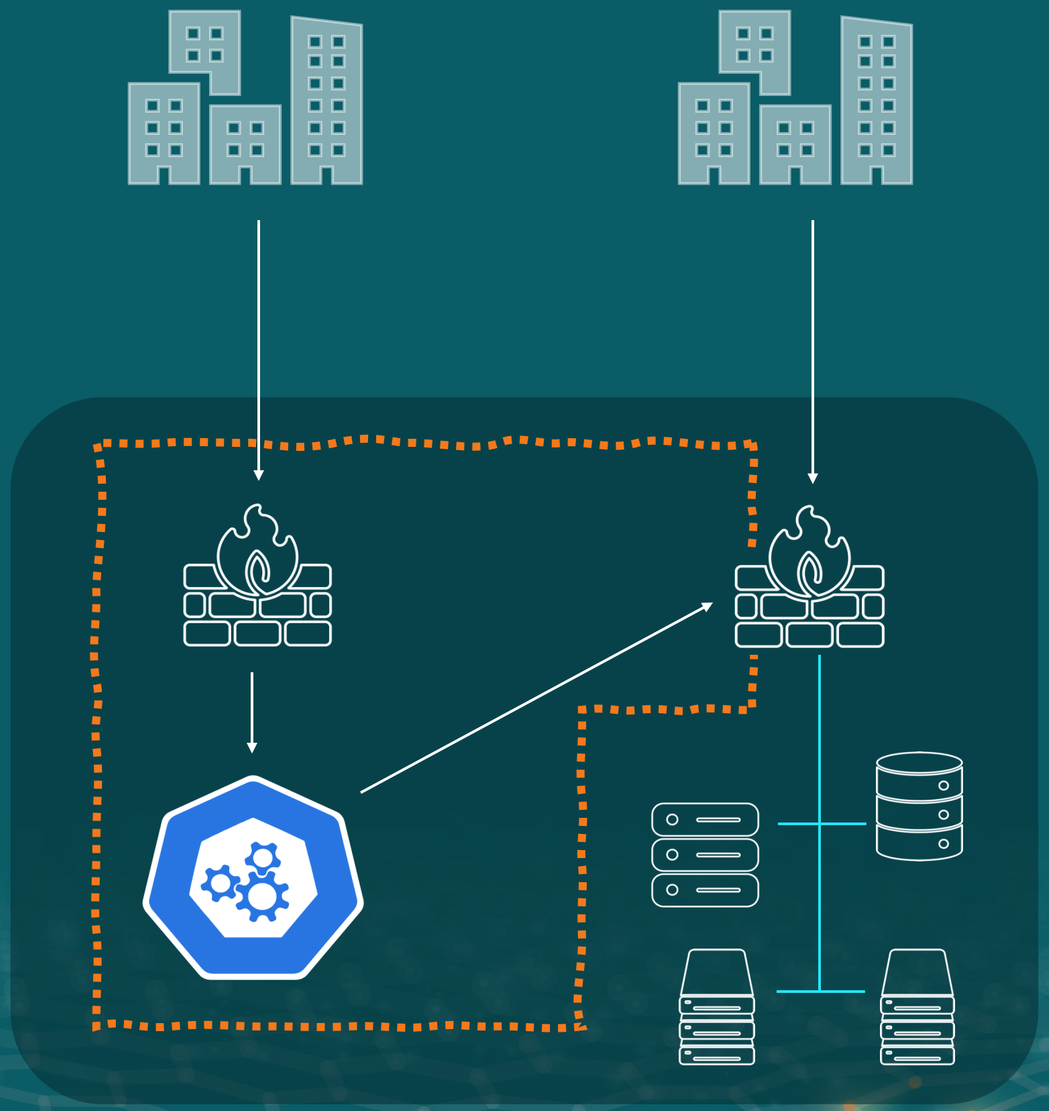
Pop Quiz | Ask a QSA

Scenario:

- Launch of an **externally-facing API** to transmit and process **cardholder data (CHD)**.
- The organization's first implementation of IaC, and first implementation of an API for CHD.

Consider:

1. Infrastructure as Code
2. CDE components



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Pop Quiz | IaC Components

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PCI DSS Requirements

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PCI DSS Requirements

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PCI DSS Requirements

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PCI DSS Requirements

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Ongoing Considerations

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Ongoing Considerations

PCI DSS SCOPE

SIGNIFICANT CHANGE

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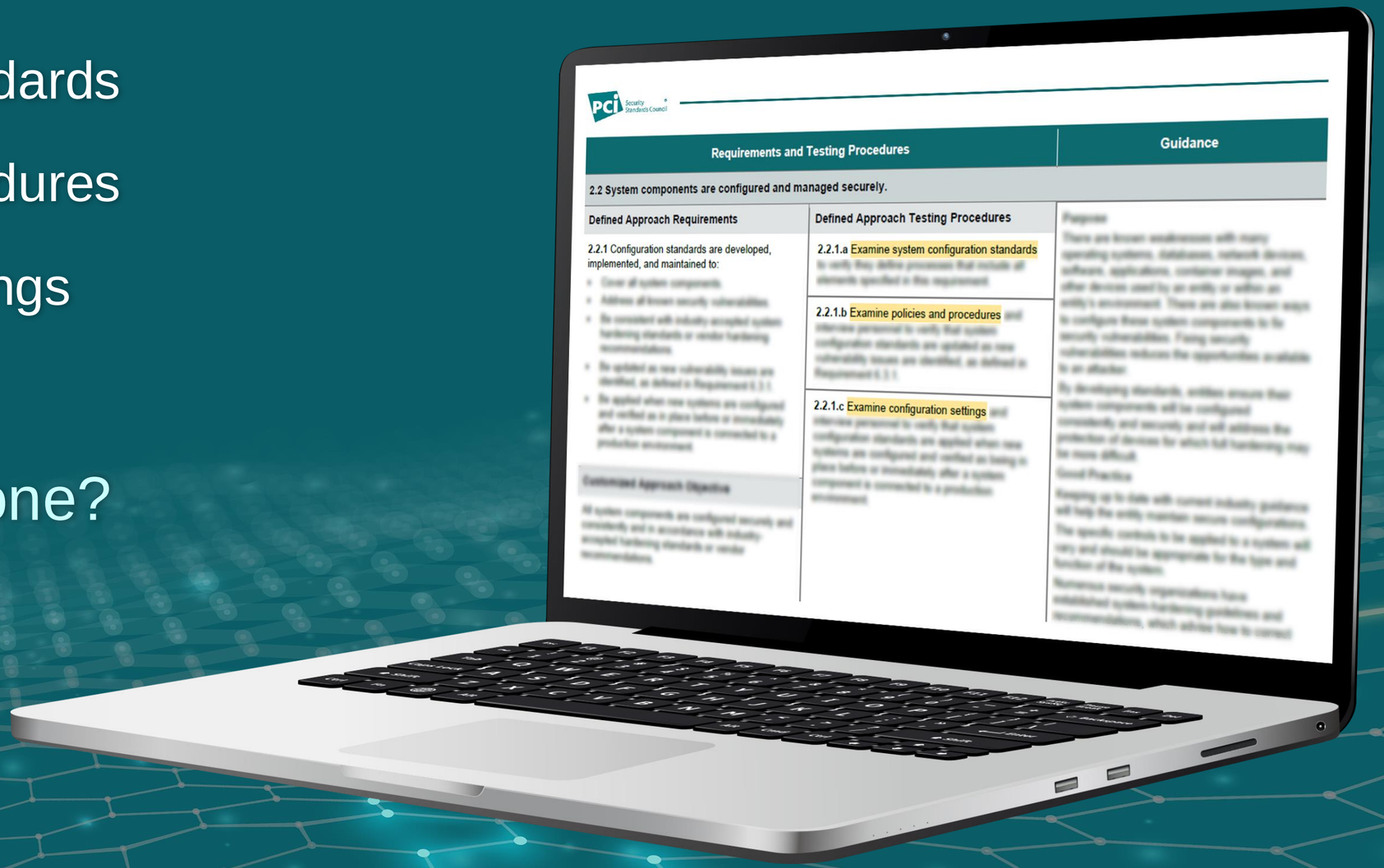
IaC (Relationship) with PCI DSS Requirements

- Configuration Standards
- Policies and Procedures
- Configuration Settings

Where has IaC gone?



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Governance Controls

Policies and procedures for operating IaC

Secure configuration of repository and use of features

Multi-tiered change control processes

Access control

(IaC vs target system components)

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Infrastructure as Code – Considerations for PCI DSS

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Infrastructure as Code – Considerations for PCI DSS

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Key Takeaways

Requirements
6.5 & 12.5

Assessment Time

Direct Component
Review

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