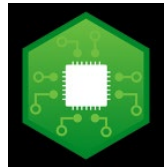# Initial ATR Provisioning Step 1

The AKM Management Module uses the Root-of-Trust's Provisioning Security Credentials to create its own set of AKM Provisioning Security Credentials between itself and the target node (in this case, Edge Node A).

AKM Management Module

Acts as a proxy server for the AKM Backend "Root-of-Trust" Database and Configuration Server and is responsible for provisioning and monitoring AKM Nodes locally.

Creates

Edge Node A

Provisioning AKM Trust Relationship ID and Associated Security Credentials for: MgmtMod-EdgeNodeA

This Provisioning ATR ID represents the Provisioning ATR between the Management Module and Edge Node A.

Security Credentials for: Management Module-Edge Node A

**Provisioning AKM Trust Relationship ID and Associated Security Credentials for: MgmtMod-EdgeNodeA**

This Provisioning ATR ID represents the Provisioning ATR between the Management Module and Edge Node A.

Stored Within →

AKM Management Module

Acts as a proxy server for the AKM Backend "Root-of-Trust" Database and Configuration Server and is responsible for provisioning and monitoring AKM Nodes locally.

Stored Within
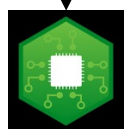
Edge Node A

1) Using a direct physical and secure connection, save the AKM Provisioning Relationship Security Credentials within intelligent tamper resistant storage devices such as a TPM or HSM, residing both within the Management Module itself and also within Edge Node A.

2) 2) Part of the information within the Provisioning AKM Trust Relationship Security Credentials is a unique hardware value associated with Edge Node A, that is then used to bind the specific tamper resistant storage device to Edge Node A.
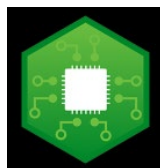
Repeat steps 1 and 2 for creating provisioning relationships for the remainder of the available nodes.

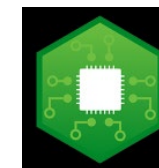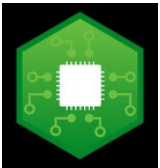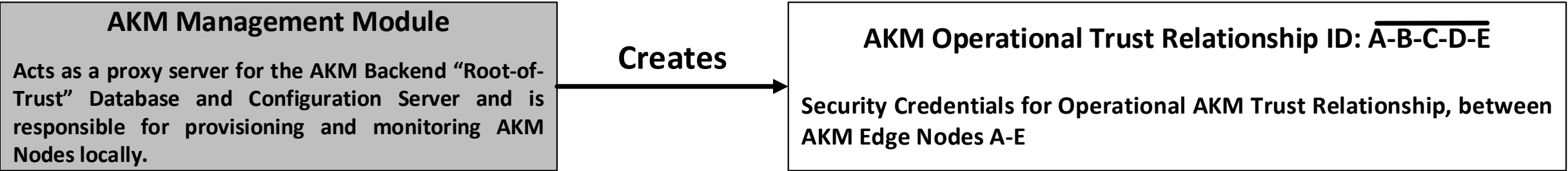**Edge Node B**   **Edge Node C**   **Edge Node D**   ●   ●   ●   ●   **Edge Node H**

Now, using information from the provisioning relationships (MgntMod-EdgeNodeA, MgntMod-EdgeNodeB, MgntMod-EdgeNodeC, MgntMod-EdgeNodeD, and MgntMod-EdgeNodeE) between the Management Module and the individual Edge Nodes (A, B, C, D, and E), create an AKM Operational Security Relationship for Edge Nodes A through E in AKM Trust Relationship ID #1

AKM Management Module

Acts as a proxy server for the AKM Backend "Root-of-Trust" Database and Configuration Server and is responsible for provisioning and monitoring AKM Nodes locally.

Creates →

AKM Operational Trust Relationship ID: A-B-C-D-E

Security Credentials for Operational AKM Trust Relationship, between AKM Edge Nodes A-E
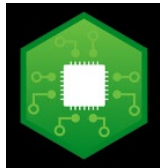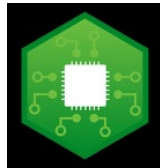
Edge Node A

Edge Node B

Edge Node C

Edge Node D

Edge Node E

Using the provisioning relationships between the Management Module and individual Edge Nodes, save AKM Trust Relationship ID #1 within each of the Edge Nodes A through E

AKM Management Module

Acts as a proxy server for the AKM Backend "Root-of-Trust" Database and Configuration Server and is responsible for provisioning and monitoring AKM Nodes locally.

Creates →

AKM Operational Trust Relationship ID: $\overline{\text{A-B-C-D-E}}$

Security Credentials for Operational AKM Trust Relationship, between AKM Edge Nodes A-E

$\overline{\text{A-B-C-D-E}}$ **Stored Into**

Edge Node A

Edge Node B

Edge Node C

Edge Node D

Edge Node E
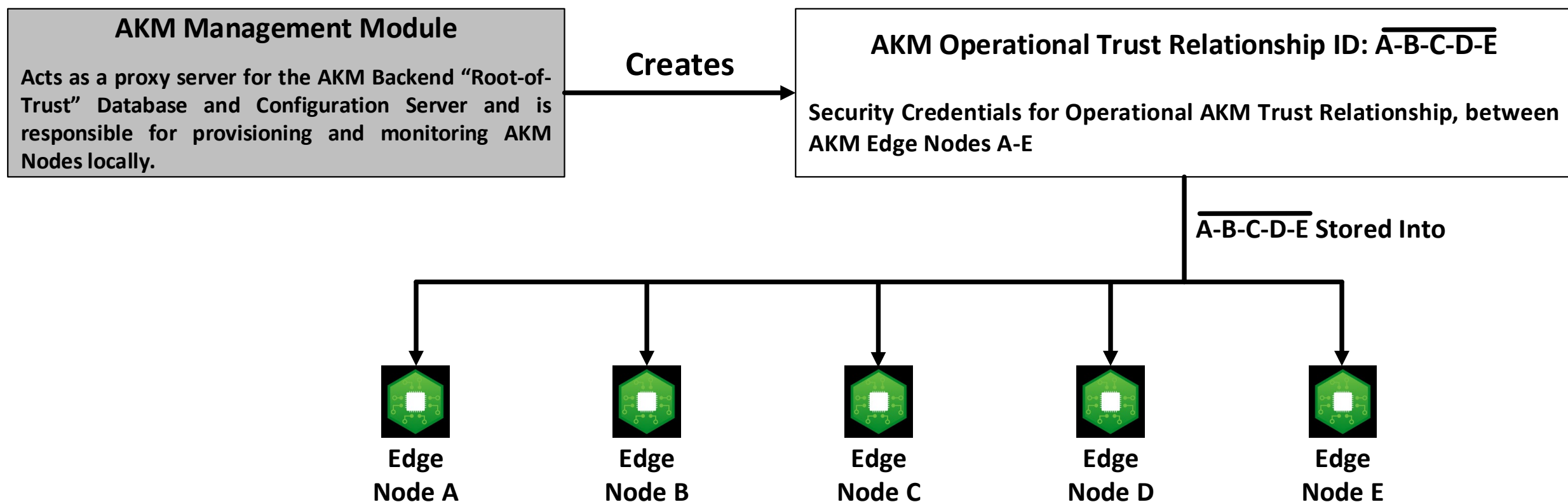
Now, do nothing other than to monitor the underlying AKM Trust Relationship for potential breach attempts!!!

AKM Management Module

Acts as a proxy server for the AKM Backend "Root-of-Trust" Database and Configuration Server and is responsible for provisioning and monitoring AKM Nodes locally.

Subsequent to AKM Trust Relationship provisioning, the primary purpose of the Management Module is to monitor the local AKM Trust Relationships and to automatically facilitate reconfiguring and recovery in the event of a potential breach or attempted breach, in accordance with policy. It is also used to create new AKM Trust Relationships and to add and/or delete nodes as desired by an operator or automatically in accordance to policy.

AKM Trust Relationship #1

Security Credentials for an Operational AKM Trust Relationship between AKM Edge Nodes A-E

Edge Node A

Edge Node B

Edge Node C

Edge Node D

Edge Node E

AKM Trust Relationship #1