# ISE 101 Basics



Today's topic: ISE: Bridging Security and Enterprise Networking

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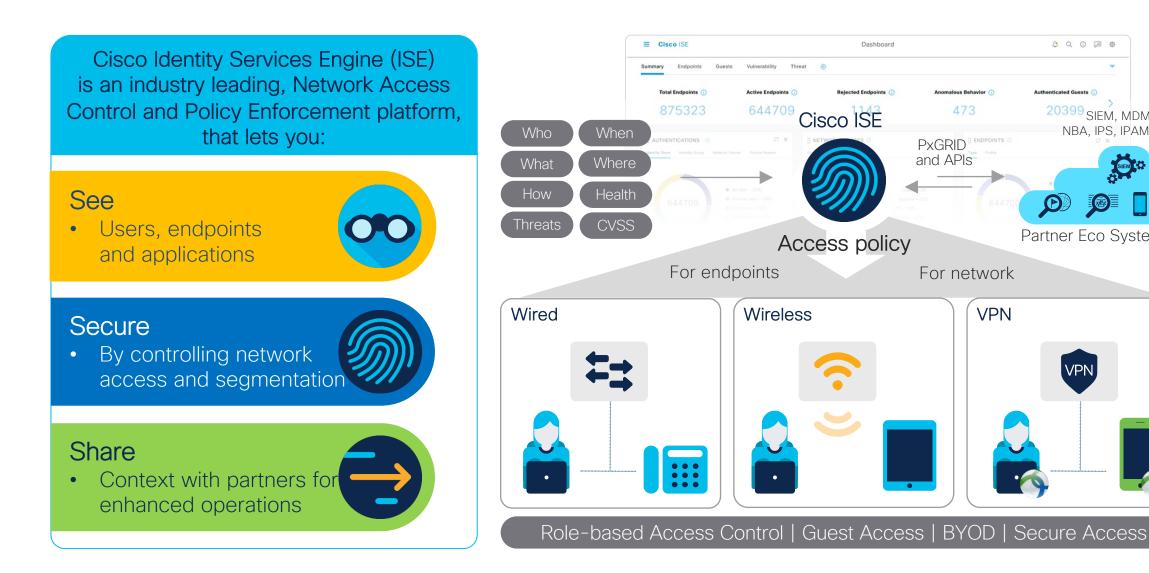
### Agenda

- 1 What is ISE?
  - 2 ISE Outcomes
  - What's new in ISE 3.2?
- 4 What's in it for you?
  - 5 Why ISE?
  - 6 ISE the bridge between EN and Security
  - 7 ISE as part of Cisco Zero Trust

# What is Identity Services Engine (ISE)?



#### Cisco ISE for intent-based access



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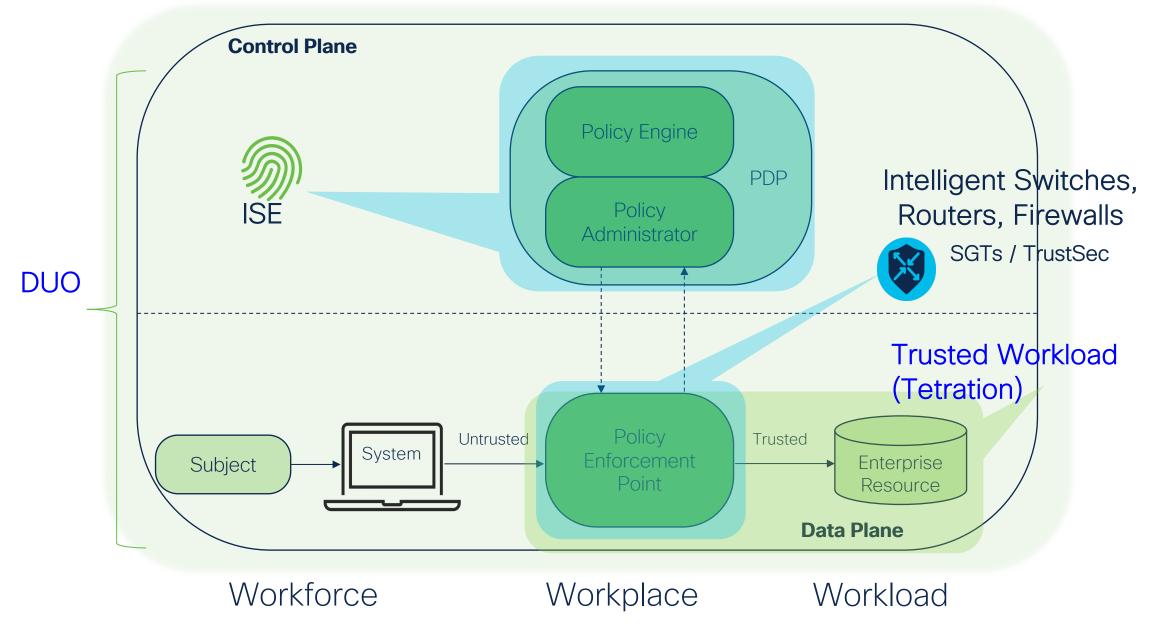
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20399 SIEM, MDM,

Partner Eco System

NBA, IPS, IPAM, etc.

#### NIST Zero Trust Architecture - SP 800-207





### ISE 3.X



**Cloud Delivered** 



Use Case Based





Faster Time to Value

< 20 minutes



Reduced TCO (Total Cost of Ownership)



### ISE 3.2 Release Highlights





\* Will require a future 3.1 patch

\*\* Targeted for 3.2p1

More on ISE YouTube Channel: <a href="https://cs.co/ise-videos">https://cs.co/ise-videos</a>

### The new ISE 3.2 - licensing

#### 2.X (Lego Model)

#### Apex (Compliance) Plus (Context) Profiling Location visibility and enforcement Posture Context Sharing (pxGrid) MDM Compliance BYOD (+CA,+MDP) TC-NAC RTC (ANC)

#### Base (Network Onboarding)

- AAA & 802.1X
- Guest (Hotspot, Self-Reg, Sponsored)
- Trustsec
  - Easy Connect (PassiveID)

#### 3.X (Nested-doll Model)

#### Premier (Compliance - Full Stack)

- Posture
- MDM Compliance
- Threat Centric Network Access Control

#### Advantage (Context and Cloud)

- Context Sharing (pxGrid Out/In)
- Profiling
- Location visibility and enforcement
- Bring Your Own Device (BYOD)
- Ranid Threat Containment

#### Essentials (User Visibility & Enforcement)

#### Enforcement

- AAA & 802.1X
- Guest (Hotspot, Self-

enforcement

 Group Based Policy (TrustSec)

#### Cloud

- User Defined Network (UDN)

Registration, Sponsored)

• Easy Connect (PassiveID)

Smart licensing

Just one common VM license

Evaluation license available

### ISE Nodes - Mix and Match

Physical Appliances

Virtual Machines

Cloud Instances



SNS-3615

SNS-3655

SNS-3695

SNS-3715

SNS-3755

SNS-3795















### What's in it for you?



### Why ISE?

Gain visibility with context and control

Know who, what, where, and how endpoints and devices are connecting. Look deep into devices to ensure compliance and limit risk, with or without the use of agents.

Extend zero trust to contain threats

Software-defined network segmentation shrinks the attack surface, limits the spread of ransomware, and enables rapid threat containment.

Accelerate value of existing solutions

Integrate with Cisco and third-party solutions to bring an active arm of protection into passive security solutions and increase your return on investment (ROI).

Future proof your network security

ISE provides the foundation for policy control within Cisco DNA Center™ and is the linchpin for SD-Access.

#### ISE business value and ROI

Cisco ISE provides streamlined, scalable network access to help realize a stronger security posture. The composite organization received a 191% ROI over the first three years of use, with a current returned value of \$1.03 million across many categories\*, including:

44%

Improved security impact from breaches

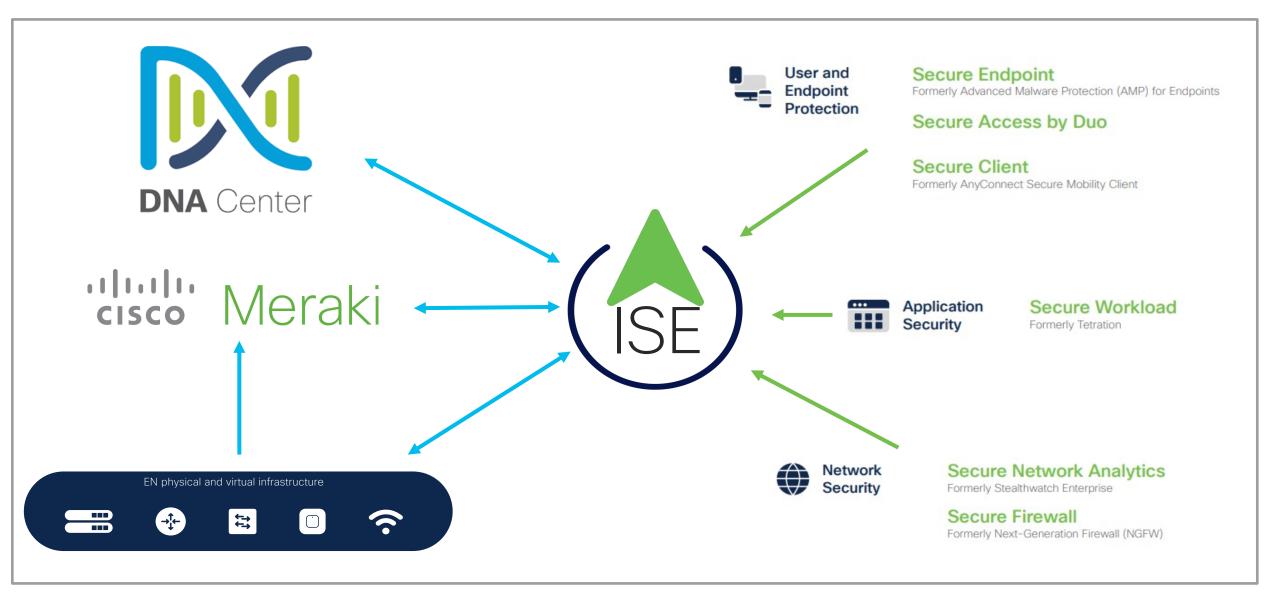
33%

Reduced IT costs with automation

23%

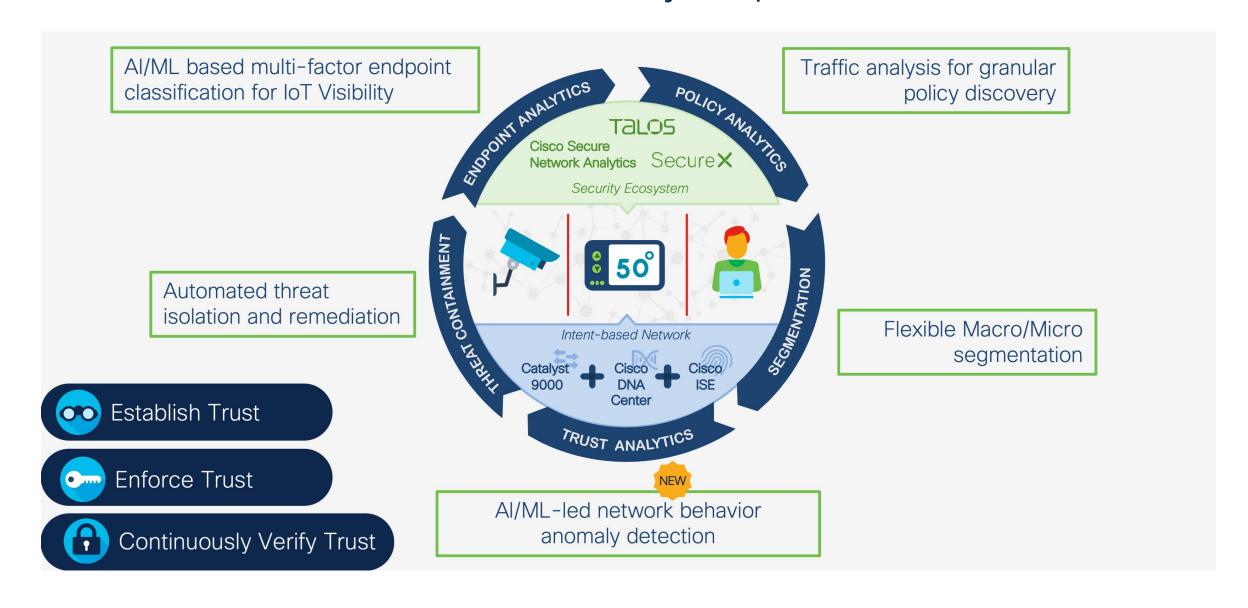
Improved business outcomes, such as employee productivity

### ISE - the bridge between EN and Security

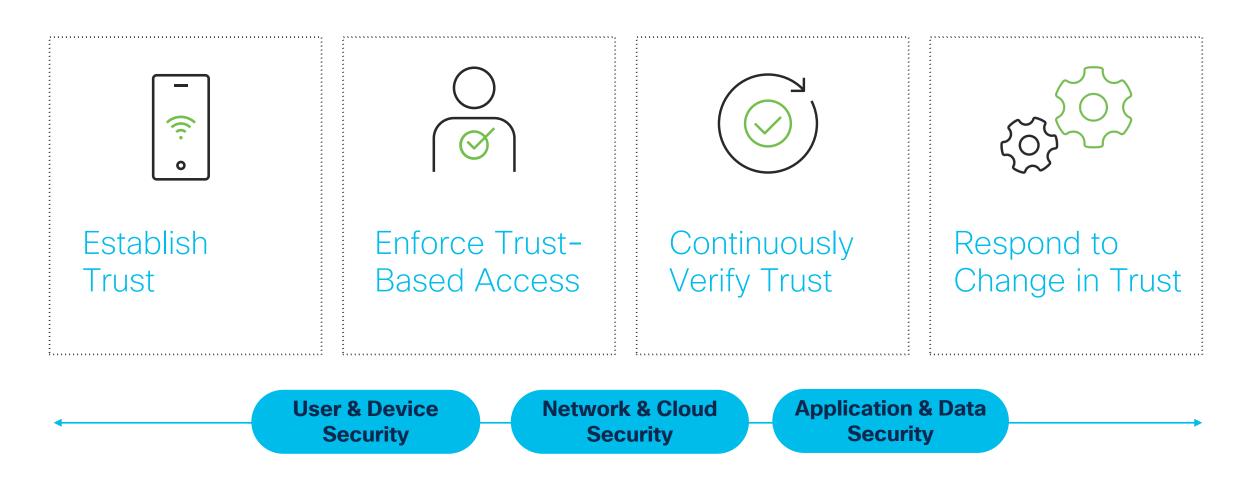


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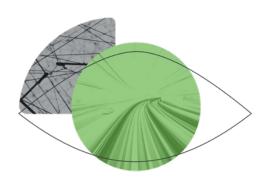
### DNA Center - ISE - SNA: Key capabilities



## What it takes to get Zero Trust right Zero Trust requirements



## ISE: The foundation to Zero Trust in network security



Grant the right level of network access to users without domains

Visibility



Shrink zones of trust and grant access based on least paritable ge

Segmentation



Automate containment of infected endpoints and revoke network

Containment

### How Identity Services Engine enforces Zero Trust

Connecting trusted users and endpoints with trusted resources

#### **Endpoint Request Access**

- Endpoint is identified and trust is established.
- Posture of endpoint verified to meet compliance.

#### Trust continually verified

- Continually monitors and verifies endpoint trust level.
- Vulnerability assessments to identify indicators of compromise.
- Automatically updates access policy.



### Endpoint classified, and profiled into groups

- Endpoints are tagged x/SGTs.
- Policy applied to profiled groups based on least privilege.

### Endpoint authorized access based on least privilege

- Access granted.
- Network segmentation achieved.

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### Zero Trust Identity and Access

#### **Access Problem** Cisco ISE Cisco ISE + Duo Cisco Duo User + Device On-Premise Web No MFA (On-Premise) Only **Applications IOT Device** On-Premise (On-Premise) **Applications** User + Device On-Premise Web (Off-Premise) Based Only **Applications** User / Device User / Device (On-Premise) (On-Premise) User + Device Cloud No MFA No n/w (On-Premise) **Applications** security User + Device Cloud (Off-Premise) **Applications**

Summary: Cisco ISE 3.X is Cloud read DevOps friendly, and fundamental for Zero Trust in the network.

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### Call to Action

- Learn more about ISE by viewing our webinars & videos, and trying it out for yourself it's free!
- Migrate to ISE 3.x before 2.7 reaches end-of-life (leverage the ISE Health Check)
- Stay in touch with Cisco and our Partners we are here for you!



### More on Cisco ISE...

#### Public Resources



ISE Deployment & Integration Guides: <a href="https://cs.co/ise-guides">https://cs.co/ise-guides</a>

ISE Documentation: <a href="https://cs.co/ise-docs">https://cs.co/ise-docs</a>

ISE Compatibility Guides: <a href="https://cs.co/ise-compatibility">https://cs.co/ise-compatibility</a>

ISE instant demo: <a href="https://www.cisco.com/site/us/en/products/security/identity-services-engine/demos.html">https://www.cisco.com/site/us/en/products/security/identity-services-engine/demos.html</a>

ISE Webinars and YT Channel: <a href="https://cs.co/ise-webinars">https://cs.co/ise-videos</a>

ISE @ Cisco DevNet: https://cs.co/ise-devnet

ISE Community: <a href="https://cs.co/ise-community">https://cs.co/ise-community</a>

Forrester report: The Total Economic Impact Of Cisco Identity Service Engine (ISE)

Landing page for ISE Upgrade program:

https://cloud.path.cisco.com/SWC\_Upgrade?product=ISE

ATX page: <a href="https://learningnetwork.cisco.com/s/atx-customer-experience">https://learningnetwork.cisco.com/s/atx-customer-experience</a>

Register for Security Advisories through Cisco Notification Service (CNS) which is free: <a href="https://www.cisco.com/c/en/us/support/web/tools/cns/notifications.html">https://www.cisco.com/c/en/us/support/web/tools/cns/notifications.html</a>

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The bridge to possible