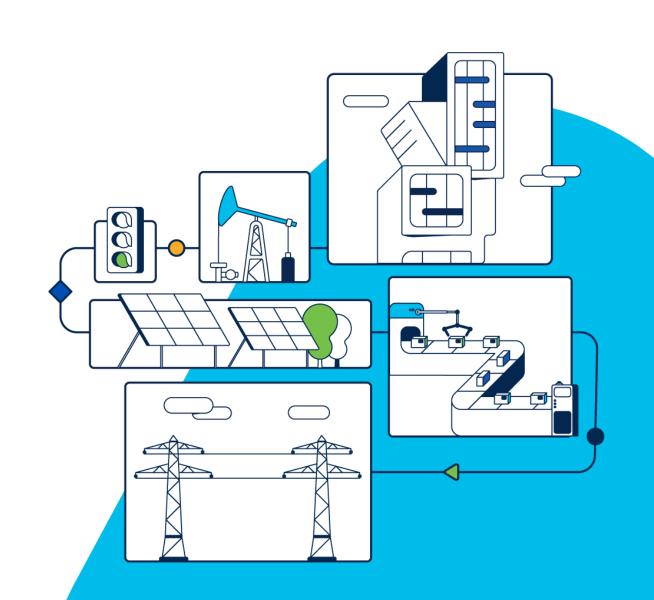


## Cisco Catalyst IE3100 Rugged Series Switch

**BDM** Presentation

February 2023



# Industrial organizations are accelerating their digital agility for a sustainable future











Connectivity is growing exponentially



#### Introduction

# Barriers hinder success in organizations to achieve their goals



#### Complexity

- Numerous connectivity types for each use case
- Many management tools
- Difficult to scale due to multiple distributed sites



#### **Cybersecurity**

- Lack of visibility into connected assets and cyber risks
- Outside vendors accessing OT asset for remote operations



#### Lack of skilled resources

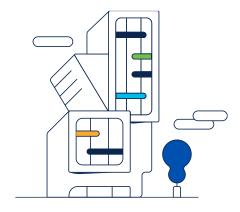
- Small IT teams in charge of massively distributed infrastructures
- Increasing dependency on IT
- Need to enable OT to be self sufficient

Increased safety and security risks | High risk of outages | Limited agility



Cisco IoT solutions meet the needs of IT and operations





## **Industrial Grade**

Purpose built for Operations



## **Enterprise IT Grade**

Leverage existing knowledge and investments

- Built for harsh and outdoor environments
- Industry use-cases and certifications
- Industrial protocol support and integrations
- · Machine data and control

- Industry-leading end-to-end Cisco security architecture
- Less complexity at scale: one network architecture
- Consistent commercial model software, licensing



# Cisco has been supporting IT and Operations for over 20 years





- #1 in market across enterprise and industrial networking
- Ruggedized for any environment
- Complete portfolio for all use cases
- IT teams support Operations



#### **Enterprise grade security**

- Security built into the products
- Extend IT security practices to industrial networks
- Seamless security workflow for IT and OT
- Purpose built security for OT



Partner to ensure customer success

- Cisco Validated Designs
- CX services
- 330 specialized global partnerships

Accelerate industrial digitization for a sustainable future



## Cisco's market leading industrial switches

Rackmount DIN-Rail IP67











Cisco Catalyst IE9300 Rugged Series Cisco Catalyst IE3200 Rugged Series

Cisco Catalyst IE3300 Rugged Series Cisco Catalyst IE3400 Rugged Series Cisco Catalyst IE3400 Heavy-Duty Series



**IOS-XE Operating Software** 



Cisco DNA Center Management



**Advanced Visibility and Security** 

## Cisco Catalyst 3x00 Product Family

## The market leading DIN-rail and IP67 wall-mount industrial switch portfolio









Catalyst IE3400

Modular switch with PoE, app hosting, asset visibility, lossless ring redundancy, & microsegmentation

#### Catalyst IE3300

Modular switch with 4PPoE, app hosting, asset visibility, mGig ports and 10G Uplinks

#### Catalyst IE3200

Your entry to power over ethernet industrial networking

Layer 3 Industrial Switches

Layer 2 Industrial Switches









Smaller, Faster, Secure

# Introducing the Cisco Catalyst IE3100 Rugged Series Switch

Compact • Gigabit • Layer-2 Industrial DIN Rail Switch

#### Compact rugged switch for machine builders and space constrained deployments





Trackside/Wayside cabinets



Solar farms



Amusement rides



## Manage with tools familiar to IT

### Leverage your existing knowledge and investments



#### Reduce downtime

Improve network visibility and performance with AI/ML and machine reasoning



#### **Increase efficiency**

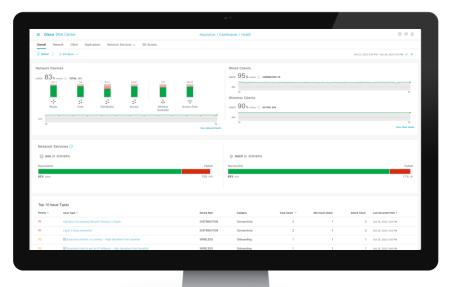
Automation and workflows simplify, empower, and streamline network management



#### **Stay compliant**

Track updates, ensure SW images comply, and remain aware of security updates

#### Cisco DNA Center





Cisco Catalyst IE3100 Rugged Series

## Product investments towards a circular economy

For a more sustainable future



Eliminating paint with anodization

Anodizing saves 10.5 Tons of powder coating per year

100% recyclable packaging

Reduce foam and carton waste, and save on logistics

Small Form Factor

**Gigabit Ethernet** 

L2 Switching



## Compact size with faster speeds

Size comparison with IE2000 Layer-2 Fast Ethernet switches

Width: Height:

2.55" / 6.5cm 5.00" / 12.7cm Depth:

4.33" / 11.0cm

19% Volume Reduction

14% Width Reduction

Width:

3.00" / 7.6cm

Height:

5.00" / 12.7cm

Depth:

4.33" / 11.0cm



21% Volume Reduction

17% Width Reduction

Width:

4.30" / 10.9cm

Height:

5.00" / 12.7cm

Depth:

5.08" / 12.9cm



19% Volume Reduction

14% Width Reduction

**Small Form Factor** 

**Gigabit Ethernet** 

L2 Switching



## Cisco Catalyst IE3100 Rugged Series Switch

Faster speeds and comprehensive features in a smaller form-factor



- GigE Speeds
- Dual power inputs
- SD Card swap drive
- Alarm ports
- L2 NAT\*

- PTP time sync
- Dynamic VLAN assignments
- MRP\* redundancy
- Cisco IOS-XE operating system
- Cisco DNA Center management

**Small Form Factor** 

**Gigabit Ethernet** 

L2 Switching



## Cisco Catalyst IE3100 Rugged Series Switch

### Best-in-class security



- Layer 2 port security
- 802.1x based network access control
- Downloadable access control lists
- Security Group Tag Exchange protocol (SXP)
- SD-Access extended node\*

**Small Form Factor** 

Gigabit Ethernet

L2 Switching



## Cisco Catalyst IE3100 Rugged Series SKUs











	IE-3100-4T2S-E	IE-3100-8T2C-E	IE-3100-18T2C-E	IE-3105-8T2C-E	IE-3105-18T2C-E
Ports	4 GE + 2 GE SFP	8 GE + 2 GE Combo	18 GE + 2 GE Combo	8 GE + 2 GE Combo	18 GE + 2 GE Combo
Layer 2 Port Security	<b>√</b>	<i>→</i>	<b>√</b>	<b>√</b>	<b>√</b>
802.1x NAC	√	✓	√	✓	✓
TrustSec SXP	✓	✓	√	✓	✓
Downloadable ACLs	<b>√</b>	$\checkmark$	$\checkmark$	✓	✓
MRP / PTP / REP	✓	✓	√	✓	✓
L2 NAT				✓	✓
TSN				<b>/</b> *	<b>√</b> *
SDA Extended Node				<b>√</b> *	<b>√</b> *





Catalyst IE3100 Rugged Series

## Catalyst IE3100 for machine builders

#### Challenges

- Very little space available in machines for networking equipment
- Many machine builders use unmanaged switches in their designs and use the same set of static IP addresses in each machine
- Open ports are security risks
- Cannot build resilient networks
- Cannot segment the network, prioritize or monitor traffic

#### The Catalyst IE3100 solution

- Small form-factor makes desired placement easier
- Full-featured IOS-XE with L2 NAT to avoid duplicate IP address and MRP for rapid fault detection and reconfiguration
- Dynamic NAC policy through ISE for secure operations
- Managed by Cisco DNA Center for QoS and performance assurance



## Catalyst IE3100 for space constrained environments

#### Challenges

- Limited amount of shared space in outdoor cabinets
- Modifications and engineering required to fit a larger switch
- Smaller switches sometimes means compromising with management, security, and resiliency

#### The Catalyst IE3100 solution

- Small form-factor makes desired placement easier and reduces engineering effort
- Managed by Cisco DNA Center
- Fully integrated with Cisco security solutions
- Choice of 6, 10, or 20 ports for flexibility



# New addition to the market leading Cisco Industrial Ethernet portfolio

### Smaller, Faster, Secure

- ✓ GE Speeds
- ✓ Dual power inputs
- ✓ SD Card swap drive
- ✓ Alarm ports
- ✓ L2 NAT\*
- ✓ PTP time sync
- ✓ MRP redundancy\*\*
- ✓ Cisco IOS-XE® operating system
- ✓ Cisco DNA Center management



**Small Form Factor** 

**Gigabit Ethernet** 

L2 Switching



## A comprehensive portfolio to meet every industrial use case

Rackmount IP67 DIN-Rail













Cisco Catalyst IE9300 Rugged Series Cisco Catalyst IE3400 Heavy-Duty Series Cisco Catalyst IE3400 Rugged Series Cisco Catalyst IE3300 Rugged Series Cisco Catalyst IE3200 Rugged Series

Cisco Catalyst IE3100 Rugged Series



**IOS-XE Operating Software** 



Cisco DNA Center Management



**Advanced Visibility and Security** 

cisco

The bridge to possible