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# Cybersecure Private 5G In-A-Box for Edge Deployments

May 7,  
9 am PDT



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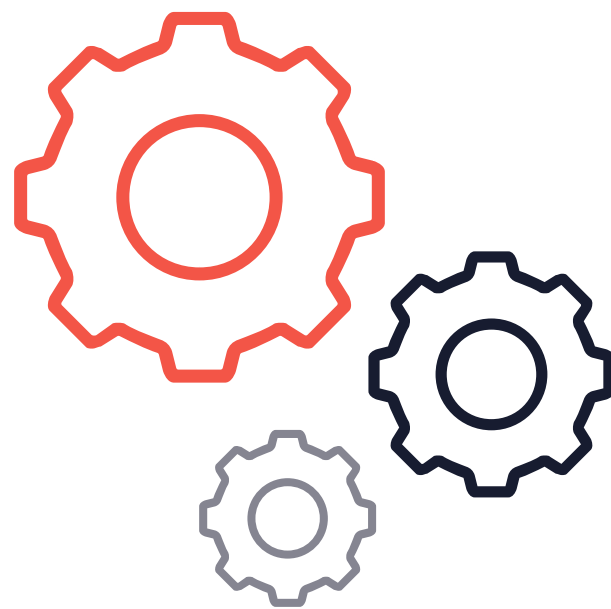
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VP of Market Development, ECS



# IES.5G

CYBERSECURE PRIVATE 5G IN-A-BOX  
FOR EDGE DEPLOYMENTS



## What are we solving?

The need to easily and rapidly deploy a zero trust secure private 5G SA network via an integrated, rugged, and edge-ready solution designed modular to scale with the needs of DoD, critical infrastructure, healthcare, logistics and warehousing, SLED, telco, industry 4.0, smart infrastructure, and more. **#teamwork**



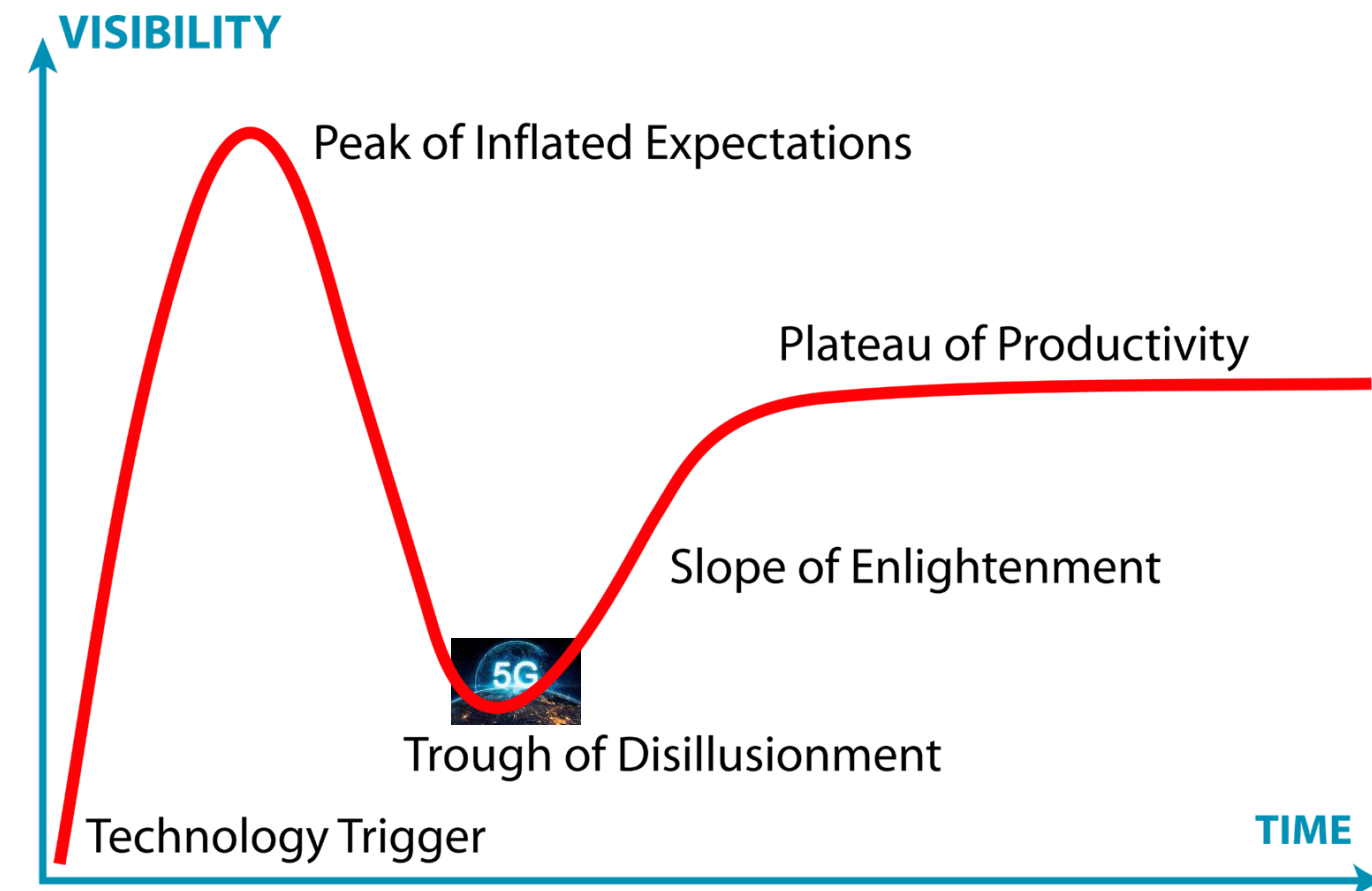
# 5G - State Of The Union

## ❑ What we saw in 2022/2023

- ❑ Very few 5G technology based deployments
- ❑ Distributed architecture, complex solution to manage.
- ❑ System integrators were still luke warm
- ❑ Customers skeptical on ROI, post COVID inertia

## ❑ What we see now?

- ❑ We see real customer asks around IOT and workloads accessing services over 5G.  
Integrated security paramount for any deployment
- ❑ Rise of Gen AI means real world edge deployments of AI services
- ❑ Connectivity, Disaster recovery aided by zero trust security
  - ❑ Private 5G single box solution with native Zero Trust

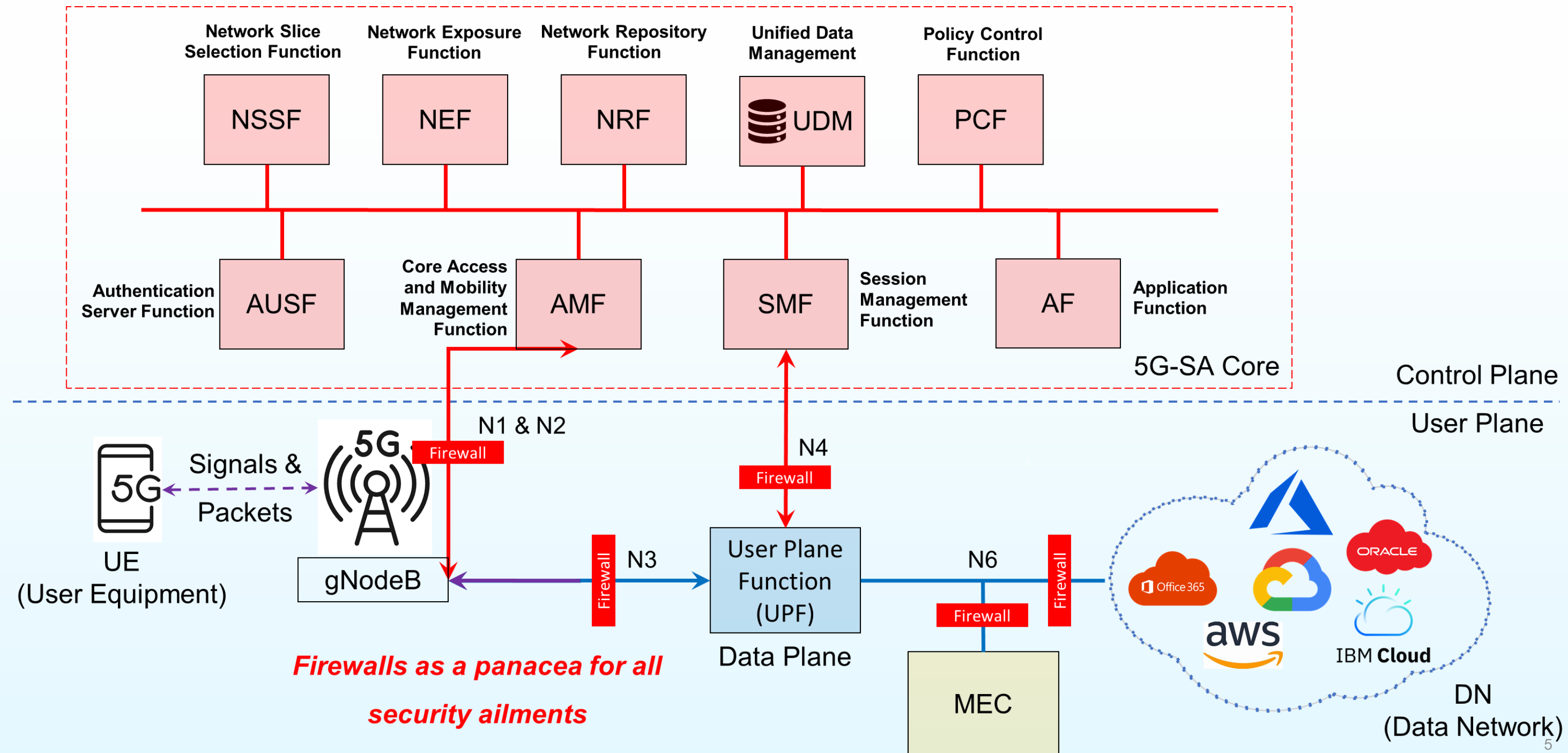


# 5G - State Of The Technology

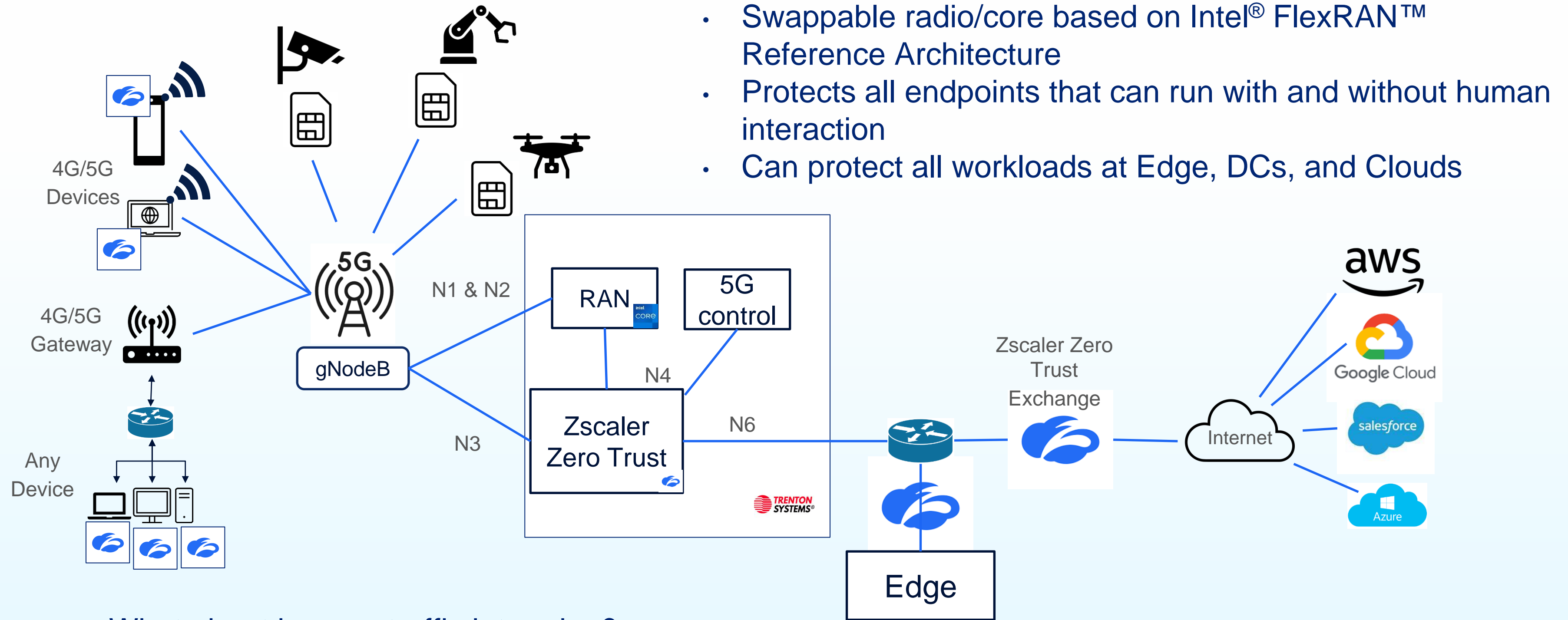
- ❑ Complex distributed services architecture
  - ❑ Few enterprises possess deep network expertise, making it difficult for them to specify and deploy a solution that addresses the complexity of their internal processes and systems
  - ❑ Enterprise business requirements are so unique that they dictate a diverse range of requirements that can only be met by an equally diverse range of vendors
  - ❑ Enterprises need a solution that is end-to-end with full lifecycle support
  - ❑ Enterprise need to now understand spectrum surveys, CBRS, radio deployment/tuning
- 
- ❑ Need for comprehensive security yet simplified.
  - ❑ Enterprises need to address the growing compliance and security risk caused by new technologies such as machine learning and artificial intelligence, the use of public cloud, and the greater attack surface brought about the convergence of OT/IT (operational and information technology)

*Need one solution to deliver them all*

# 5G - State Of The Union. Security Today (No cybersecurity requirement in 3GPP standard)



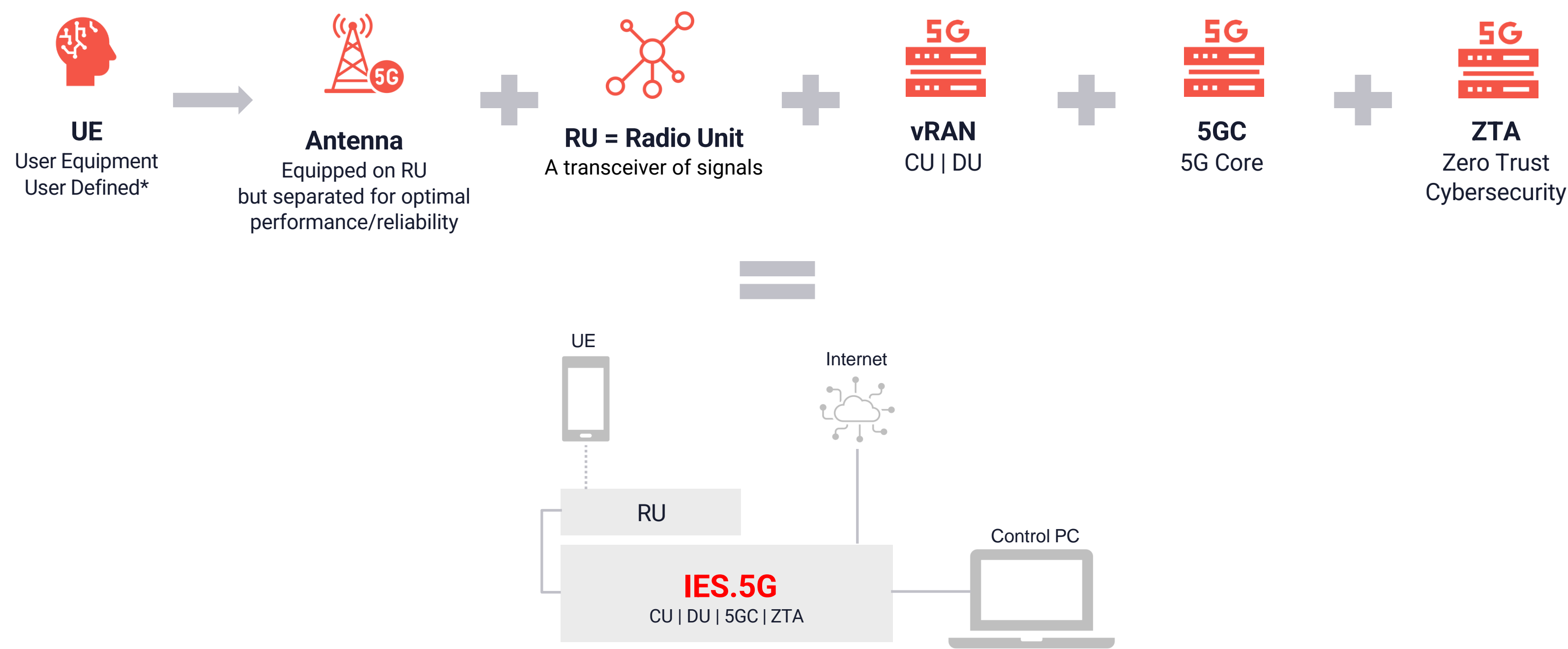
# Solution Architecture



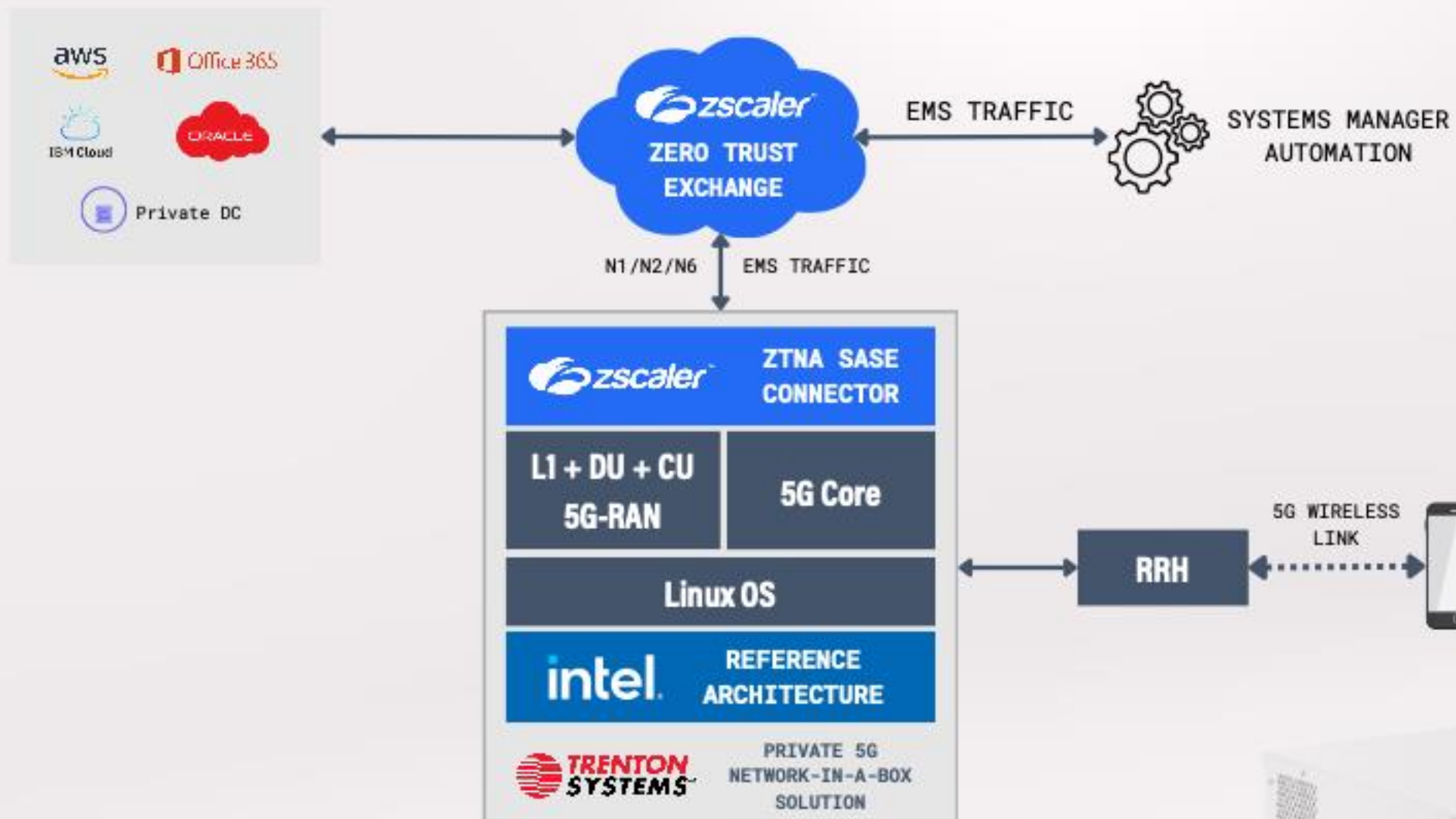
- What about ingress traffic into edge?
- These products support zero trust secured flows (eg: OT traffic)

# IES.5G: Secure Private 5G In-a-Box

An integrated, scalable, and simplified solution to deploy private 5G at the edge.







**IES.5G**

## SECURE, PRIVATE 5G NETWORK-IN-A-BOX SOLUTION

- US MILITARY-GRADE HARDENED, HIGH-PERFORMANCE COMPUTING SYSTEMS IN SWAP-OPTIMIZED FORM FACTORS
- INTEROPERABLE 5G CORE AND RAN ALONG WITH XEON SCALABLE PROCESSORS AND E810 CARD
- BUILT-IN MANAGEMENT INTERFACE FOR SERVICE/SUBSCRIBER MANAGEMENT
- MANAGEMENT AND DATA TRAFFIC SECURED THROUGH ZSCALER ZTNA EXCHANGE
- MODULAR AND SCALABLE SOLUTION WITH FLEXIBLE COMPONENTS FOR ON-PREM AND EDGE DEPLOYMENTS



# Demo

# | Rugged HPC + Connectivity + Security + Integration

Edge-ready performance, rapid deployment, and zero trust security with the power of 5G for responsive decision-making in the field. Cybersecurity across hardware, firmware, software, and network layers leaves no room for compromise. Certified to the most stringent standards to operate in harsh environments.

## KEY TAKEAWAYS



### Edge ready

Designed for in-the-field operation under harsh conditions



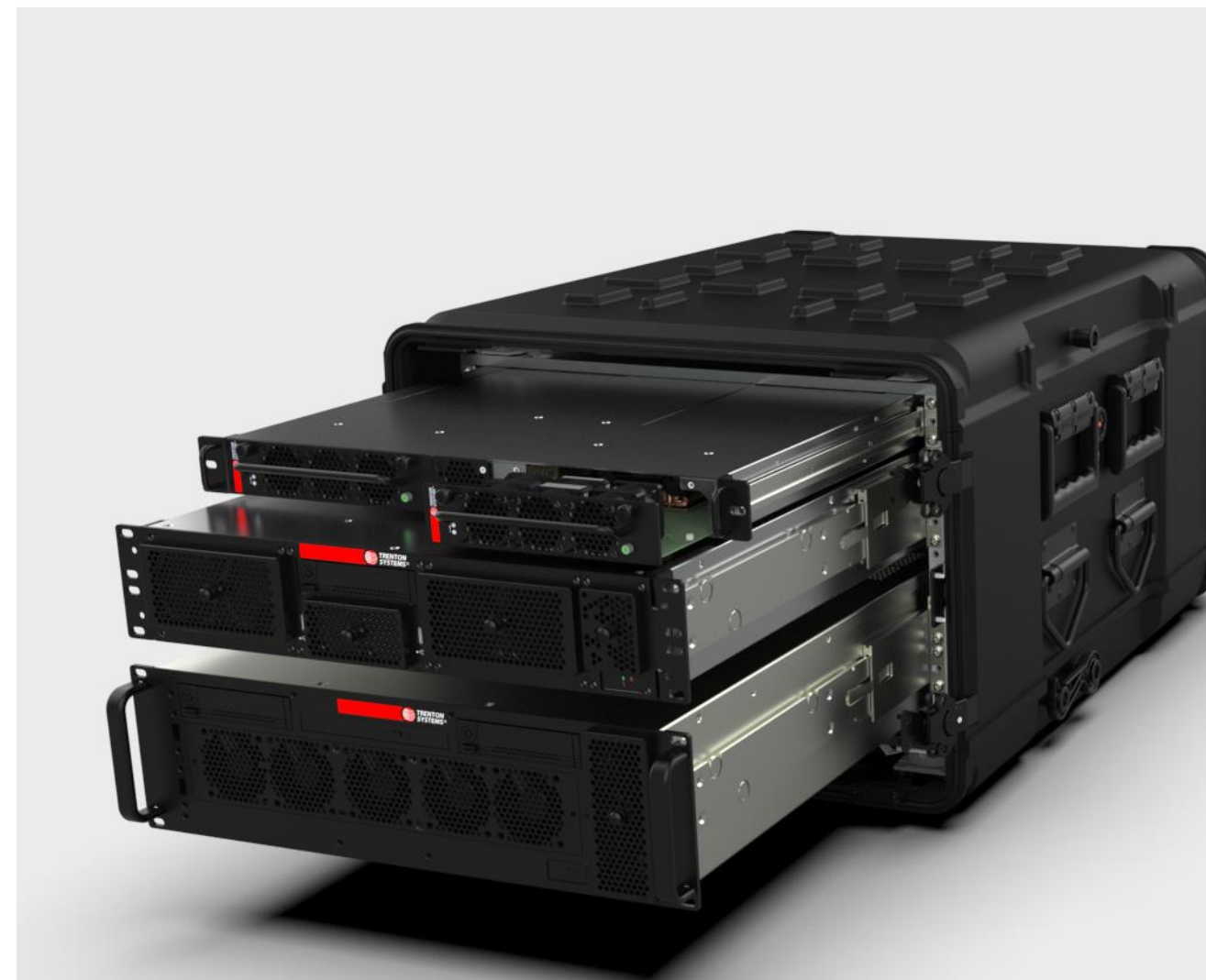
### Easy & Scalable

Designed to remove complexities and configurable to ever-evolving needs



### Secure

With True Zero Trust Provisioning across any network



Trenton Systems' rugged hardware, bolstered by vRAN + 5G Core, supercharged by Intel's leading technology, and fortified by Zscaler's cloud-based security, we offer unmatched support and reliability, enabling you to operate your private 5G network with confidence anywhere across the globe.



# IES.5G Use Cases

The Department of Defense, various public sector organizations including federal, civilian, healthcare, and intelligence agencies, as well as state and local governments, all require fast and dependable high-speed connectivity for a wide range of devices that can be rapidly deployed.

## More use cases:

Precision Agriculture - Construction and Mining -  
Intelligent Retail - Hospitality - Utilities -  
Construction - FinTech - Manufacturing



Smart  
Infrastructure



Defense &  
Military



Logistics and  
Warehousing



Education,  
Training, and Sim

# 5G



Environmental  
Monitoring



First  
Responders



Entertainment



Healthcare and  
Telehealth





info@trentonsystems.com

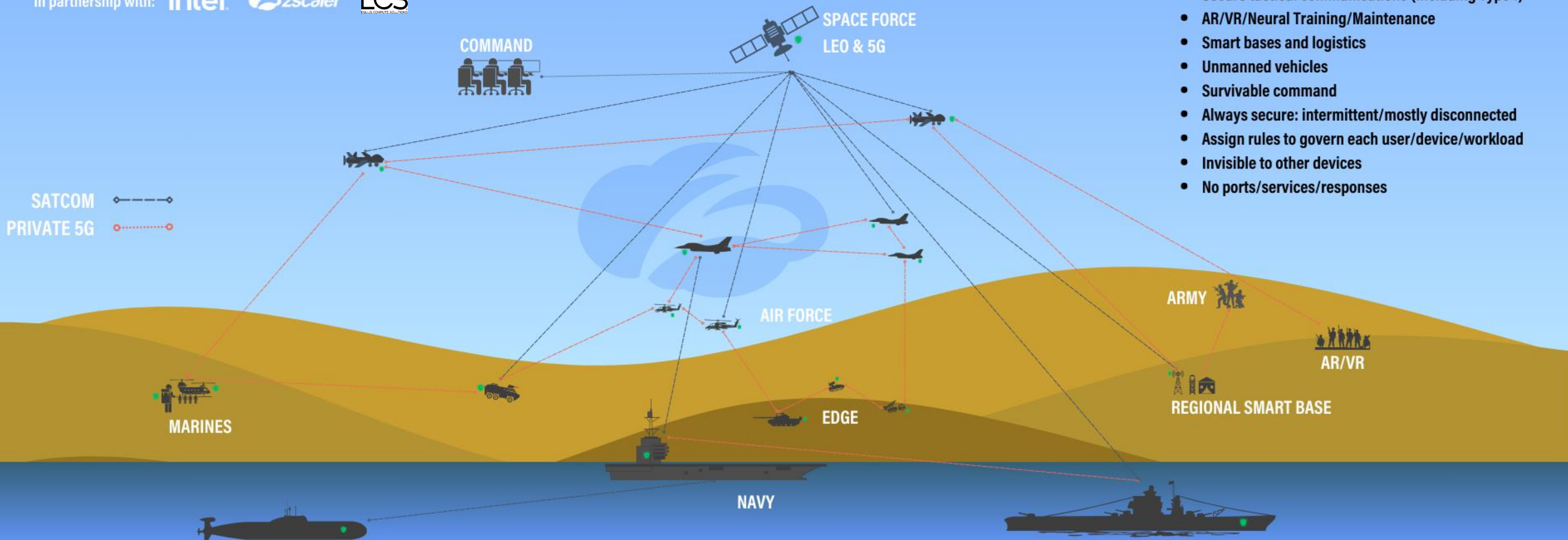
(770) 287-3100 | www.trentonsystems.com

# INTEGRATED EDGE SOLUTION 5G

ORAN-COMPLIANT AND APPLICATION-READY HIGH-PERFORMANCE COMPUTING WITH ENHANCED CONNECTIVITY AT THE EDGE PROTECTED BY MULTI-LAYER ZERO-TRUST CYBERSECURITY AND RUGGEDIZED TO STRINGENT MILITARY STANDARDS FOR JOINT ALL-DOMAIN OPERATIONS.

RUGGED COMPUTING DEVICES SEAMLESSLY CONNECTED AT THE TACTICAL EDGE OF THE NETWORK, POWERED BY INTEGRATED AI/ML/DL CAPABILITIES VIA MULTI-INSTANCE GPUS. DATA IS SECURELY PROTECTED AT REST, IN TRANSIT, AND IN USE. THE DEVICES OPERATE ON A FULLY SECURED PRIVATE 5G MESH NETWORK, ENSURING ROBUST SECURITY AND PRIVACY. UBIQUITOUS AND CONTINUOUS COMMUNICATIONS ARE ENABLED USING BOTH TERRESTRIAL AND NON-TERRESTRIAL NETWORKS. ALWAYS CONNECTED. ALWAYS SECURED.

In partnership with:   

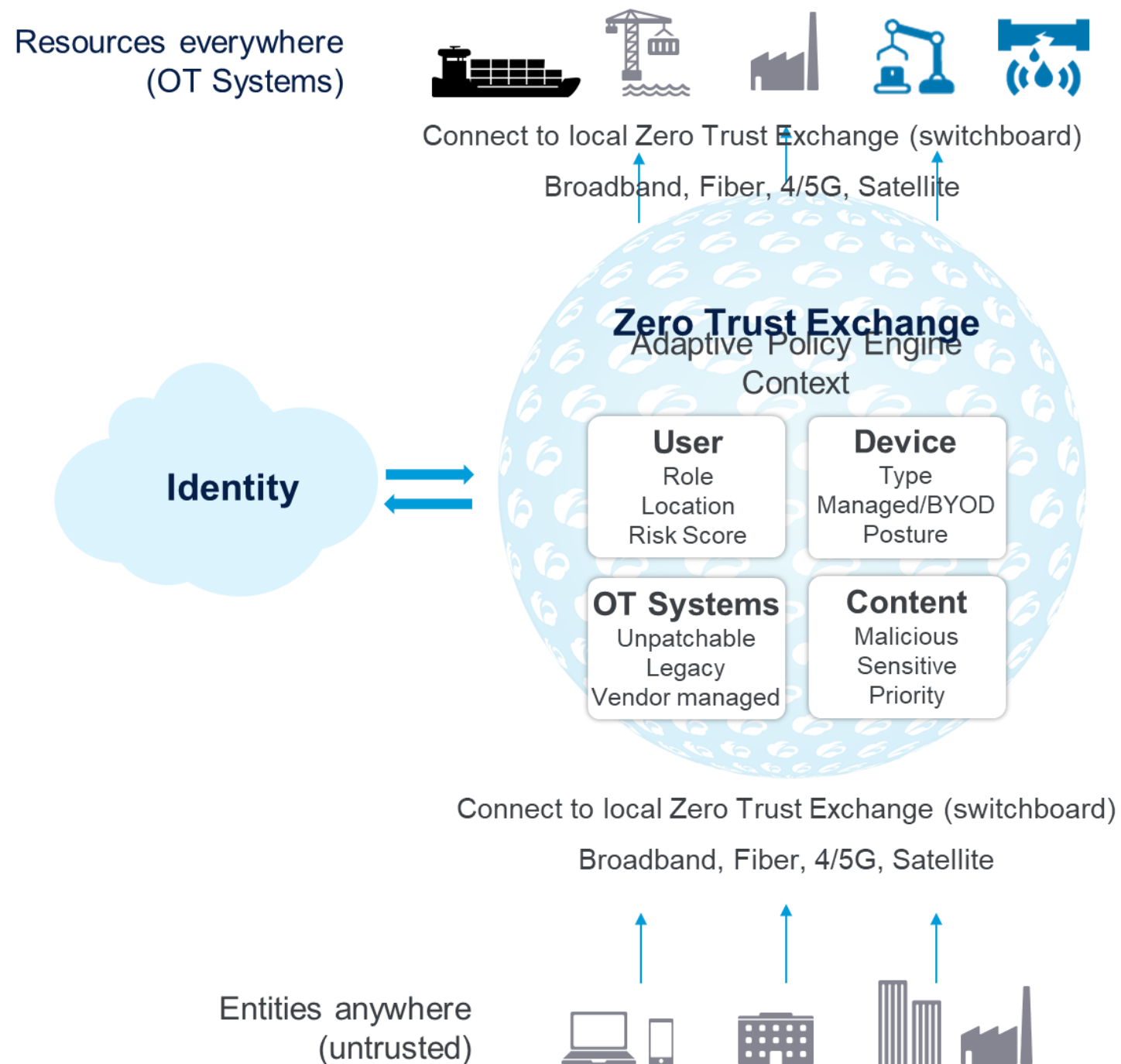


## SECURELY CONNECT EVERYTHING TO EVERYTHING

- IL5 compliant (always encrypted/double encrypted+)
- Interoperable 5G/LEO/RF
- Secure tactical communications (including Type 1)
- AR/VR/Neural Training/Maintenance
- Smart bases and logistics
- Unmanned vehicles
- Survivable command
- Always secure: intermittent/mostly disconnected
- Assign rules to govern each user/device/workload
- Invisible to other devices
- No ports/services/responses



# | Use Case: Protecting Critical Infrastructure for Operational Resilience



## Three opposing tenets

### Zero Trust Exchange

- 1 Zero network access**  
Connect users to OT systems/apps, not corporate/OT networks, to prevent lateral movement
- 2 Zero attack surface**  
Make OT systems invisible so they can't be attacked
- 3 Zero passthrough connections**  
Proxy architecture for better cyberthreat and protection

VS.

### Old-world

- > OT system access requires network access**  
Risk of lateral threat movement
- > Publish OT systems on the internet**  
Large attack surface
- > Passthrough architecture**  
Limited ability to inspect and protect

A zero trust architecture is the optimal approach for industrial network transformation.

# | Use Case: Logistics & Warehousing

An IES.5G simplifies the 5G infrastructure. Less hardware across the warehouse while supporting more connected nodes. Real-time insights into operations and production metrics. Scale as your workloads evolve or change altogether. Remove cumbersome hardware refresh cycles. As easy as Wi-Fi.





# Advanced Computing Solutions Provider

Enhancing performance, scalability, and security for evolving on-premise, cloud, and edge deployments within harsh environments.

**300+**

Mission-Critical Programs

**35+**

Countries Worldwide

**50+**

Industry-Leading Partners

## DIFFERENTIATORS

-  Customer-Driven Design
-  Made in the USA
-  Secure Supply Chain
-  Quality Control & Compliance
-  Multi-Layer Cybersecurity

## MARKETS

**Defense & Gov't**

**Industrial**

**Commercial**



\*American Made. Globally Trusted.





# Our Solutions

## CONFIGURABLE

OFF-THE-SHELF OR  
MODIFIED

Easily incorporate the latest technologies to reduce time to market and cost of ownership

1U-5U & SFF



## CUSTOM

BOARDS, SYSTEMS,  
AND SOLUTIONS

Craft a completely new solution per your requirements with our sales and engineering teams

DESIGNED TO SPEC

**Configurability**  
**Scalability**  
**Interoperability**

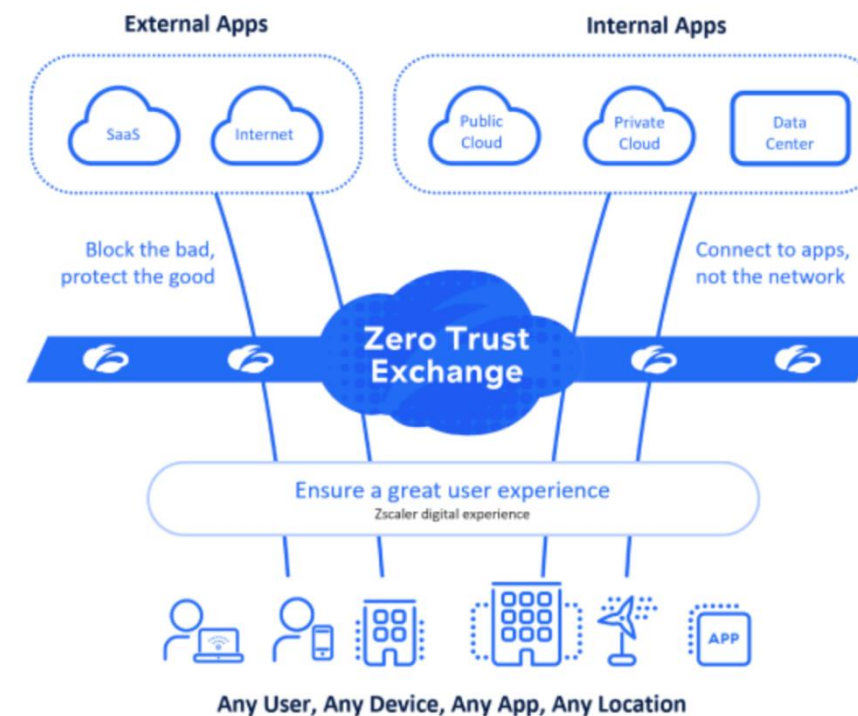
Built for use cases across various domains, our hardware securely processes, analyzes, stores, transfers data alongside evolving workloads on-premise, in the cloud, or at the edge.

# Zscaler - The leader in secure digital transformation

Zscaler envisions a world in which the exchange of information is always seamless and secure.

Disrupting 30+ years of legacy networking and security architectures

More than a decade of experience implementing Zero Trust



## Key Metrics

Leader in Cloud Security  
**\$2.0B+**  
Annual Recurring Revenue

Strong Growth and Cash Flow:  
Above "Rule-of-40"  
**48%** + **21%**  
(FY'23) (FY'23)  
Revenue Growth Year-Over-Year Free Cash Flow Margin

Highly Scalable Cloud Economics  
**81%**  
(FY'23, Non-GAAP)  
Gross Margin

Proven Land & Expand Model  
**117%**  
Dollar Based Net Retention

## Eliminate, Simplify, Standardize, and Automate

Scalable Cloud Platform

**390B+**  
daily transactions  
(>20x Google Searches)

**9B+**  
daily incident and policy violations prevented

**500T+**  
daily signals for AI/ML cloud effect

Proven Customer Value

**80%**  
Faster user experience



**35x**  
Fewer infected machines



**70%**  
Infrastructure cost reduction



We've achieved incredible growth since our founding in 2007, and today, we exist to create a world in which the exchange of information is always secure and seamless. It's our mission to anticipate, secure, and simplify the experience of doing business—transforming today and tomorrow.

**7,500+**  
customers, including 30% of the Forbes Global 2000

**400B+**  
daily transactions secured

**>80**  
Net Promoter Score (avg. SaaS company = 30)

**Gartner**  
A Leader in the Gartner MQ for Security Service Edge (SSE)



# Zscaler is hardened and vetted

Numerous government certifications. Not granted because we kind of do it, but granted because we handle the entire certification path – ticking ALL the boxes.



## FedRAMP High

Zscaler protects the Federal government's most sensitive data in cloud computing environments



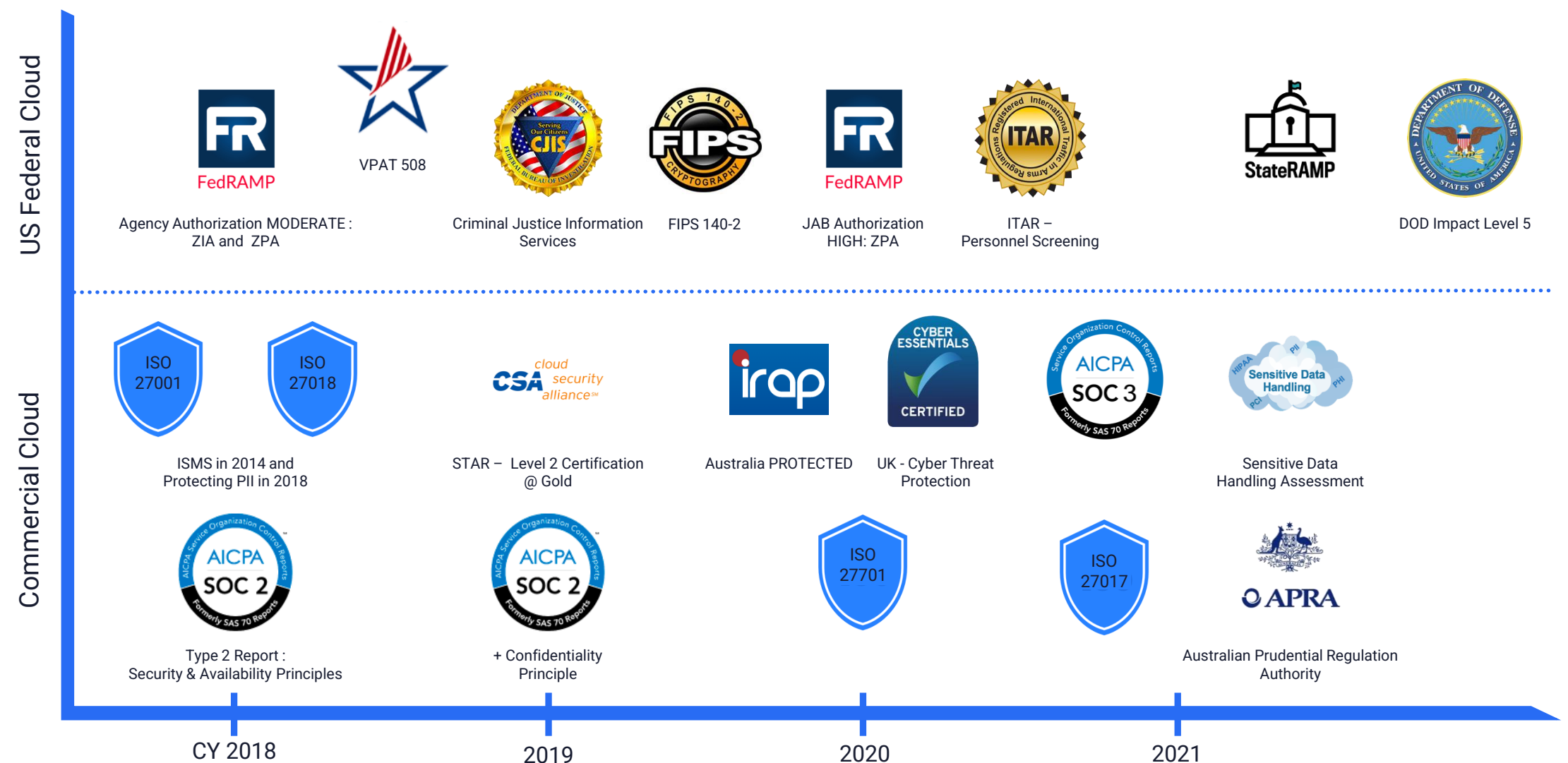
## DoD Impact Level 5

Zscaler hosts unclassified NSSs supporting DoD missions



## TIC 3.0 compliant

Trusted Internet Connection compliant for agency risk management



No “us” vs. “them”. No firewalls.  
No VPNs. Invisible to attackers.  
Global coverage.



### Minimal Attack Surface

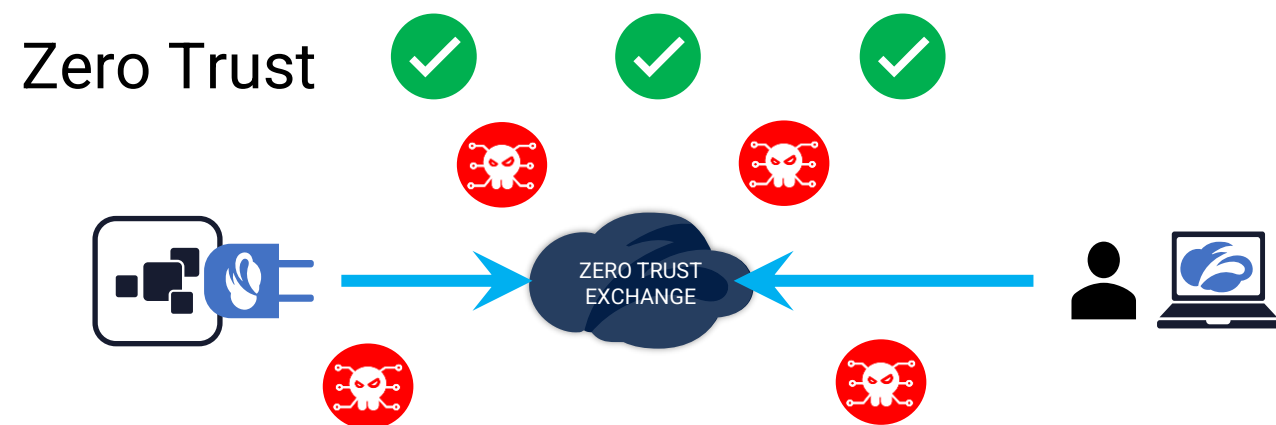
No inbound connections, Apps invisible.

### Prevents Lateral Movement

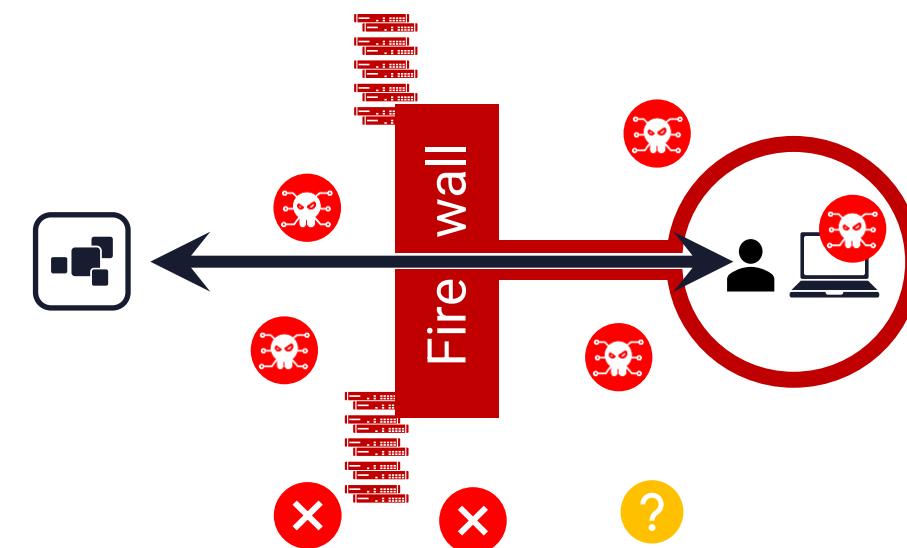
Connect devices to apps, not networks.

### Prevents Compromise and Data Loss

100% packet inspection (including encrypted traffic)



VS.







# Advanced Systems and Integrated Solutions Provider

Equus Compute Solutions (ECS) is a systems and solutions technology provider with over 30 years of experience in delivering advanced compute solutions. We offer a wide range of products, services, and support capabilities providing unparalleled value and innovation.

## Bespoke Design

- Custom Technology Solutions
- Vendor Agnostic
- On-Prem Innovation Lab for POC's

## 34 Years of Engineering

- Over 3.5 million Systems Delivered
- Achieving Industry Standards & Best Practices
- Highly Trained & Skilled Workforce

## Global Footprint

- Headquartered in Minnesota, USA
- Innovation Center in California, USA
- Support Offices in Germany, Brazil, China, Taiwan & Japan

## Established Symbiotic Relationships

- Partnerships with Widely Recognized Brands
- Continuous Drive for Synergy
- Efficient & Collaborative

## Trusted Advisor

- Deep experience in multiple verticals and technology gap analysis
- Customer-focused problem solving and alignment
- Integrity & Adaptability



# INNOVATION

## AS A SERVICE.

- Integration and Deployment
- Artificial Intelligence
- 5/6G IoT
- Infrastructure-as-a-Service
- Hardware Design
- Software Engineering

- ESG-as-a-Service
- Immersion Cooling
- Cyber Security
- Network Operations Center
- Executive Briefing Center

# Compute solutions that keep your company relevant and growing in a digital economy



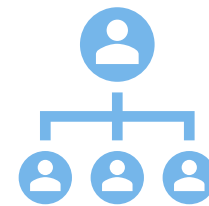
## System Design & Integration

Seamless integration that blows your mind, not your budget.



## Innovation Center

Our labs are set up to test the latest in technology for you. No leaks.



## Program Management

Customized execution plans more solid than Fort Knox.



## Project Management

Management and coordination to keep the project on time and budget



## Deployment & Installation

Rollout and implementation of your project.



## Service & Support

Technical support and system repair to keep your project online.



# Summary



- A single box comprehensive solution is a must
- Box deployed in diverse environments, hence condition for harsh operating conditions
- The edge is an extension of the cloud, 5G is another access mechanism
- Every security policy applicable at cloud is applicable at the edge also
- We are the first to incorporate zero trust based mechanisms to protect edge and its workloads
- Designed, built and validated in the USA

## 01

**Easy & Scalable**

## 02

**Secure**

## 03

**Edge-ready**



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