



# **Smart Campus**

Security & Efficiency

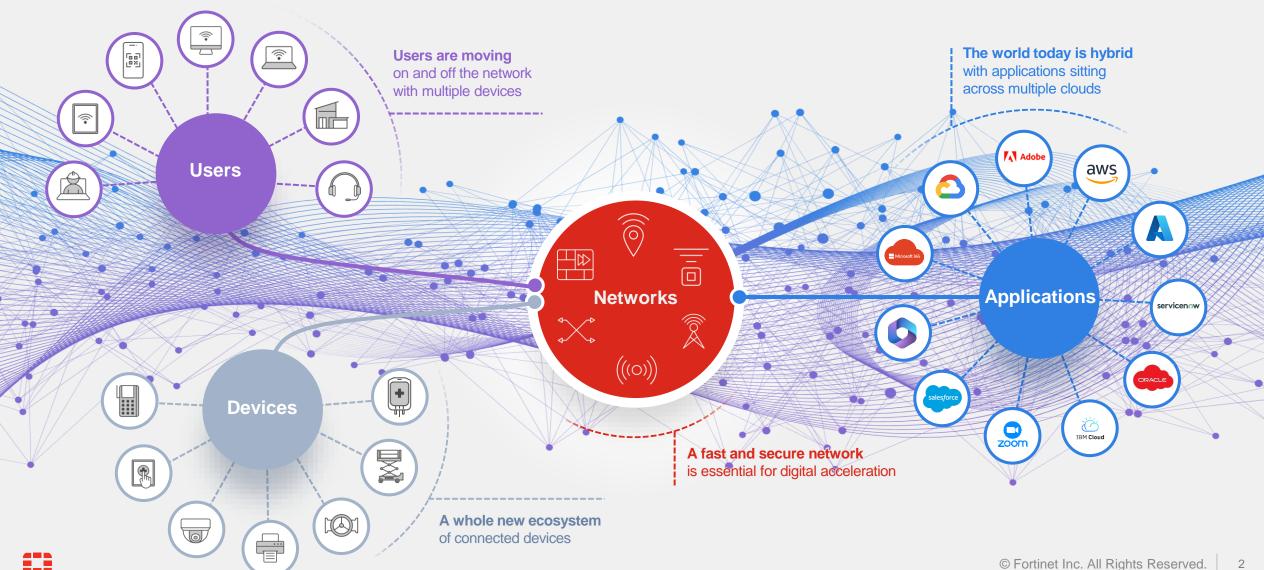
Jose Lozano, Systems Engineer





# Infrastructure has become more Complex...

...leaving It Vulnerable to Attack





# Threat Landscape Continues to Expand...



**55.7B** connected IoT devices projected by 2025.

IDC Future of Industry Ecosystems: Shared Data and Insights







# Threat Landscape Continues to Expand...





## Users

Gartner Predicts 10% of Large Enterprises Will Have a Mature and Measurable Zero-Trust Program in Place by 2026.

Gartner press release January 23, 2023







# Threat Landscape Continues to Expand...





Users



## **Operating System**

48% of respondents reported lack of time for proper risk assessment, and 39% reported slowness to patch critical systems as a result.

Gartner press release January 23, 2023





# The Fortinet Advantage



## Respecting the environment

## Mitigating our impact on climate change

Our net zero ambitions and approach

### Climate change pledge

## Net zero

By 2030 Scope 1 & Scope 2 emissions

SBTi committed

### Our path to net zero

#### Scope 1 emissions

- Eliminate natural gas in our buildings
- Electrify our buildings
- Use renewable energy

#### Scope 2 emissions

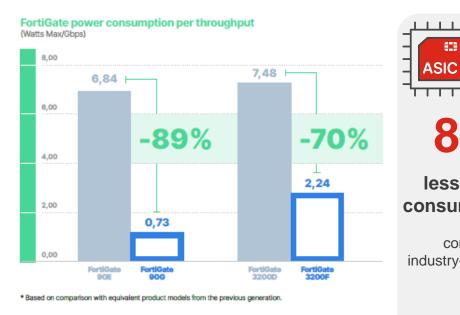
- Invest in on-site and offsite green energy
- Use alternative refrigerant & cooling mechanisms

#### Scope 3 emissions

- Involve our partners and suppliers in our efforts
- Continue to improve the energy efficiency of our products and solutions
- Embed circular economy principles

## Reducing the environmental impact of our products

Continuously improving product energy efficiency





88%

less power consumption

compared to industry-standard CPU



# The SPU Advantage

Fortinet's Security Processors (SPUs) radically increase the speed, scale, efficiency and value of Fortinet solutions while greatly improving user experience, reducing footprint and power requirements. From entry-level to high-end solutions, SPU-powered Fortinet appliances deliver superior Security Compute Ratings versus industry alternatives.



Network Processors operate in-line to deliver unmatched performance for network functions and hyperscale for stateful firewall functions.

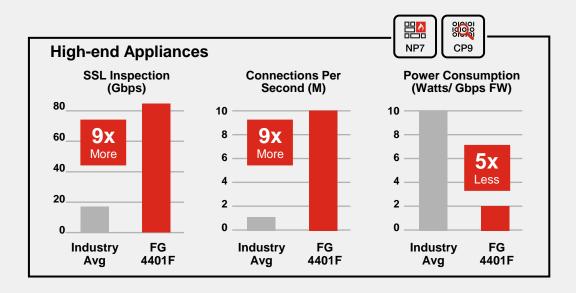


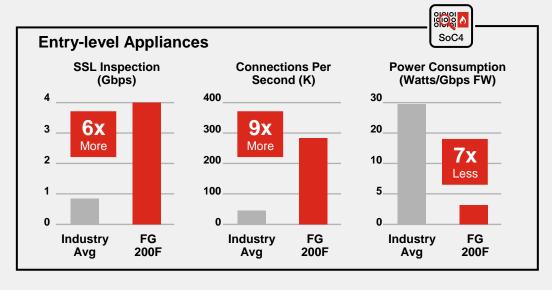
As a co-processor to the main CPU, Content Processors offload resource-intensive processing and drive content inspection to accelerate security functions.



The System-on-a-Chip consolidates network and content processing, delivering fast application identification, steering, and overlay performance.

Security Compute Ratings are benchmarks that compare the performance metrics of Fortinet SPU-based next-generation firewalls to similarly priced solutions from vendors that utilize generic processors for networking and security.

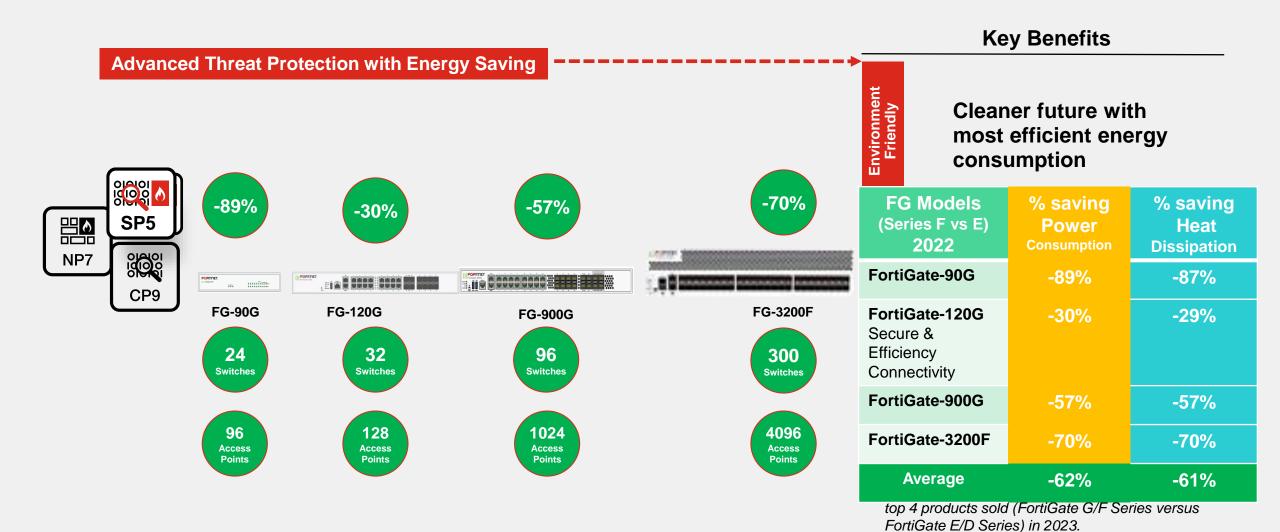






## **2023** Reduced 62% Power Consumption for a Cleaner Future

Continuous Improvement on Energy Consumption Across FortiGate Series Generations





# **Open Ecosystem**

500+ Best-in-class integrated solutions for comprehensive protection



**Fabric** Connectors

Fortinet-developed deep integration automating security operations and policies





















**Fabric APIs** 

Partner-developed integration using Fabric APIs providing broad visibility with end-to-end solutions























**Fabric DevOps**  Community-driven DevOps scripts automating network and security provisioning, configuration, and orchestration











OTU

CSA











**Extended Ecosystem**  Integrations with threat sharing initiatives and other vendor technologies



Firewalls













**Endpoint** 

Security



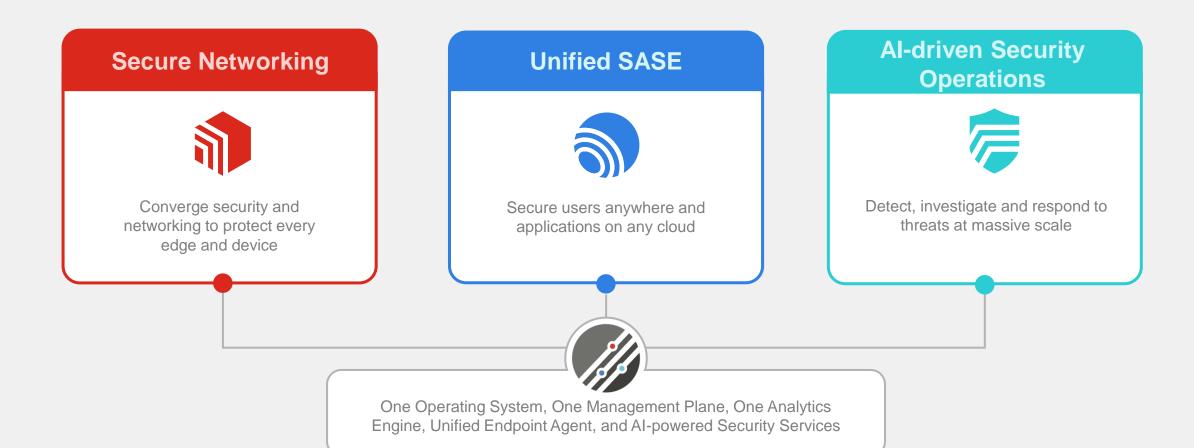






# The Fortinet Security Fabric Vision

Cybersecurity, everywhere you need it.





# **Extend Protection Across the Entire Network with Unified Security**



### **Hybrid Mesh Firewall**



Evolution of NGFW to Hybrid Mesh Firewall for unified management that simplifies operations, reduces risk, and ensures compliance at scale

















FWaaS

### **Secure Connectivity**



FortiLink converges networking and security for secure WLAN/LAN equipment to provide security and automation, improve visibility and control, and reduce TCO.











FortiEx

FortiNIAC

Al-Driven Technologies



FortiOS



FortiGuard Labs



Al for Networking (AIOPS)



Unified Management





**Flexible** 

to the LAN

Can be managed via cloud,

virtual machine, or appliance

**NGFW Security & Control** 

**Full Visibility with Control** 

NAC functions with policy

enforcement built in

Best of Breed Security extended

# **Secure Connectivity**

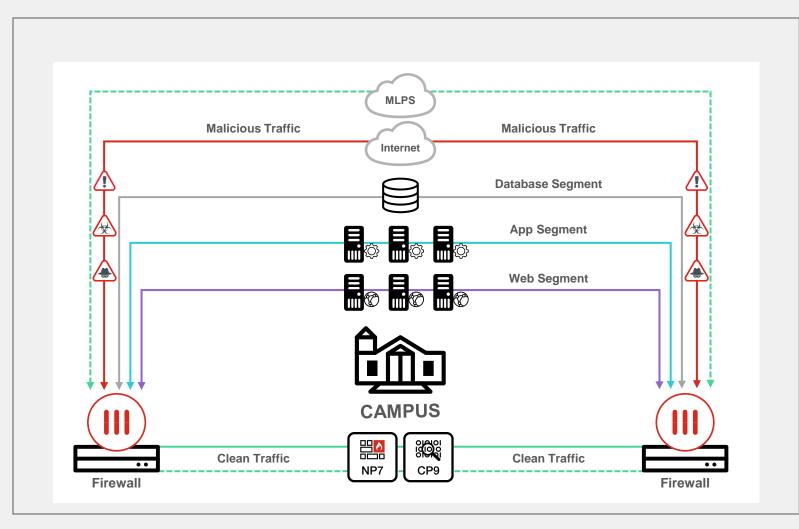
The power of convergence with a single platform

### Flexible and Scalable Networks Converged with Security **Choice of Management** FortiLAN Cloud **FortiManager** and Deployment **Converged Accelerated Enterprise Security FortiExtender FortiNAC FortiAP FortiSwitch** Al Automation and **FortiLink** FortiMonitor FortiAlOps **FortiLink** Intelligence NAC Microbranch **Branch Campus DataCenter** Expand the power of SASE to the Convergence of SD-WAN, WLAN, Security, visibility, and control at Provide the performance and smallest edges of your network LAN, and 5G Gateway into an scale for large deployments. security necessary for todays and easily orchestrated and managed tomorrow's datacenter solution.



# Fortinet Flexible Segmentation Solutions

### Manage Internal Risks



### **GOAL**

 Prevent internal and external threats with advanced security inspection

### **CAPABILITIES**

- Segmentation—Micro, macro (including VXLAN), network, applications, etc.
- ZTNA end-to-end consistent policy
- Low latency, high speed and density I/O

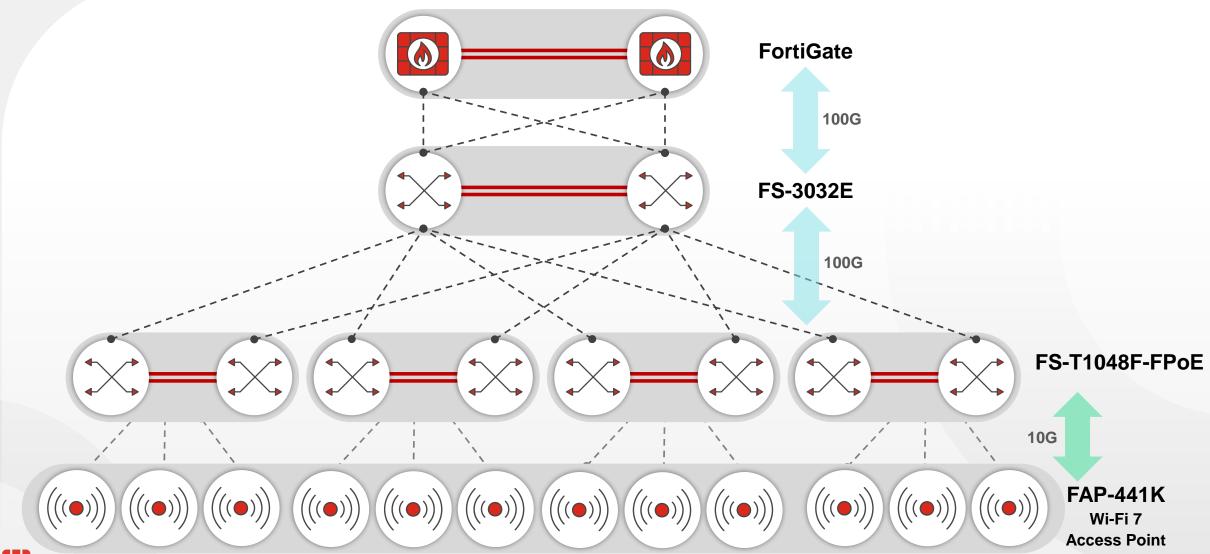
### **BENEFIT**

Delivering strong user to application controls and compliance





# High Performance Wired and Wireless Networking







# Six Keys

to an Intelligent Next-Generation Network











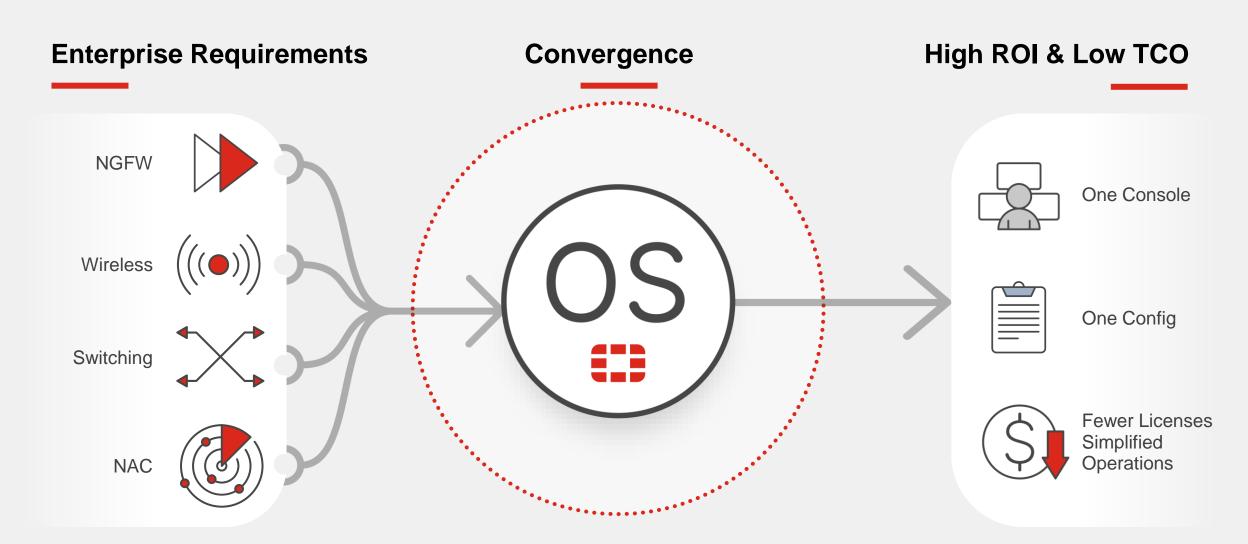








# **Convergence of Networking and Security**

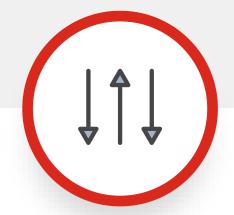






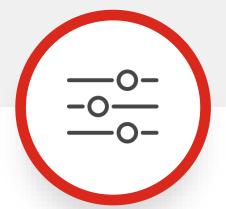
## **FortiLink**

Direct control, configuration, and management through FortiOS



## Configuration

Agile deployment auto discovery



## **Control**

 Extends the next-generation firewall (NGFW) features and inspection to the LAN



## Management

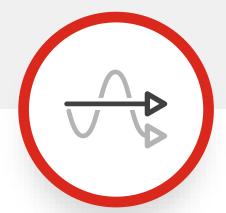
- A significant step beyond centralized management
- Included with FortiOS, no additional licenses





## FortiLink NAC

Secure onboarding of devices



## **Simplicity**

- Easy deployment, no design changes, no overlay
- Defaults are ready to go



## **Visibility**

- Automatic discovery of endpoints and devices
- FortiGuard IoT service available



## **Security**

- Policy application
- Enable devices on port(s) or entire network
- Actions can be port or device specific





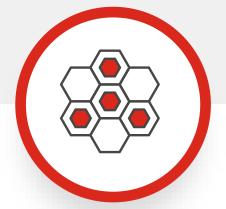
# **Virtual Patching**

Isolate and Protect Vulnerable Devices



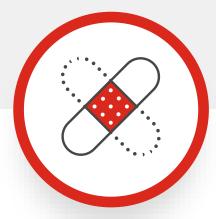
## **Identify Vulnerable**

- FortiGate scans for vulnerable systems connected to the LAN
- Identifies unpatched vulnerabilities



### **Isolate**

- FortiLink NAC isolates device into separate VLAN segment
- Dynamic policy assignment based on device vulnerability status



## **Virtual Patch**

- IPS Virtual patching dynamically applied to protect device at port level.
- This patch prevents exploit of vulnerability



# **SD-Campus Product Components**

## **FortiGate**



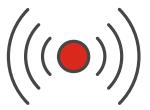
17+ models

**Next Generation Firewall** 

WLAN Controller

**Switch Controller** 

## **FortiAP**

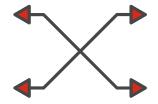


### 20+ models

- Wi-Fi 7
- Internal or external antenna

Indoor/Outdoor/Wall jack

## **FortiSwitch**



### 40+ models

- 1 GE to 100GE
- L2/L3
- Edge Switches
- Campus core & Data Center
- Rugged Options
- Advanced Services





# **Zero Touch Deployment**



**Deploy** 

**Ship** Switches, APs and FortiGates to the site, plug it all in, and connect it to the internet









Configure

FortiGate sends a message to our deployment server



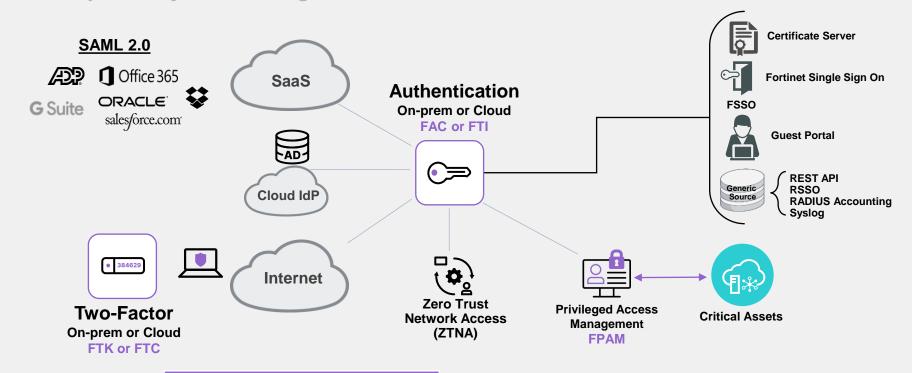
**Deployment** server pushes configuration to FortiGate, FortiSwitch and FortiAP





# Fortinet's Comprehensive IAM

Centralized Identity Lifecycle Management with Zero Trust



### LEGEND

FTK: FortiToken

FAC: FortiAuthenticator FTC: FortiToken Cloud FTI: FortiTrust Identity

FPAM: FortiPAM

### **Authentication**

Establish/re-verify identity though user log-in, certificate, and/or multifactor input

### **Role-based Access**

Provide information from authentication source for use in accessing company resources

### Single Sign On

Provide better user experience for logins while maintaining security

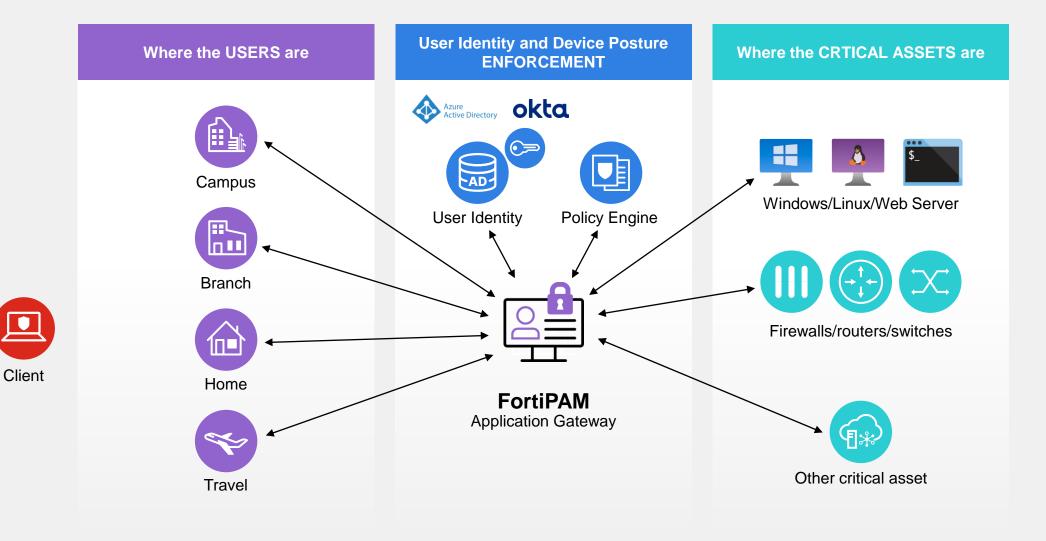
### **Zero Trust**

Least privilege access based on identity to all resources



# ZTNA Elements – FortiPAM as Application Gateway

The components of a client-based ZTNA PAM solution





User

# FortiPAM ZTNA Operation

