

Leading Secure Remote Access Software

Netop



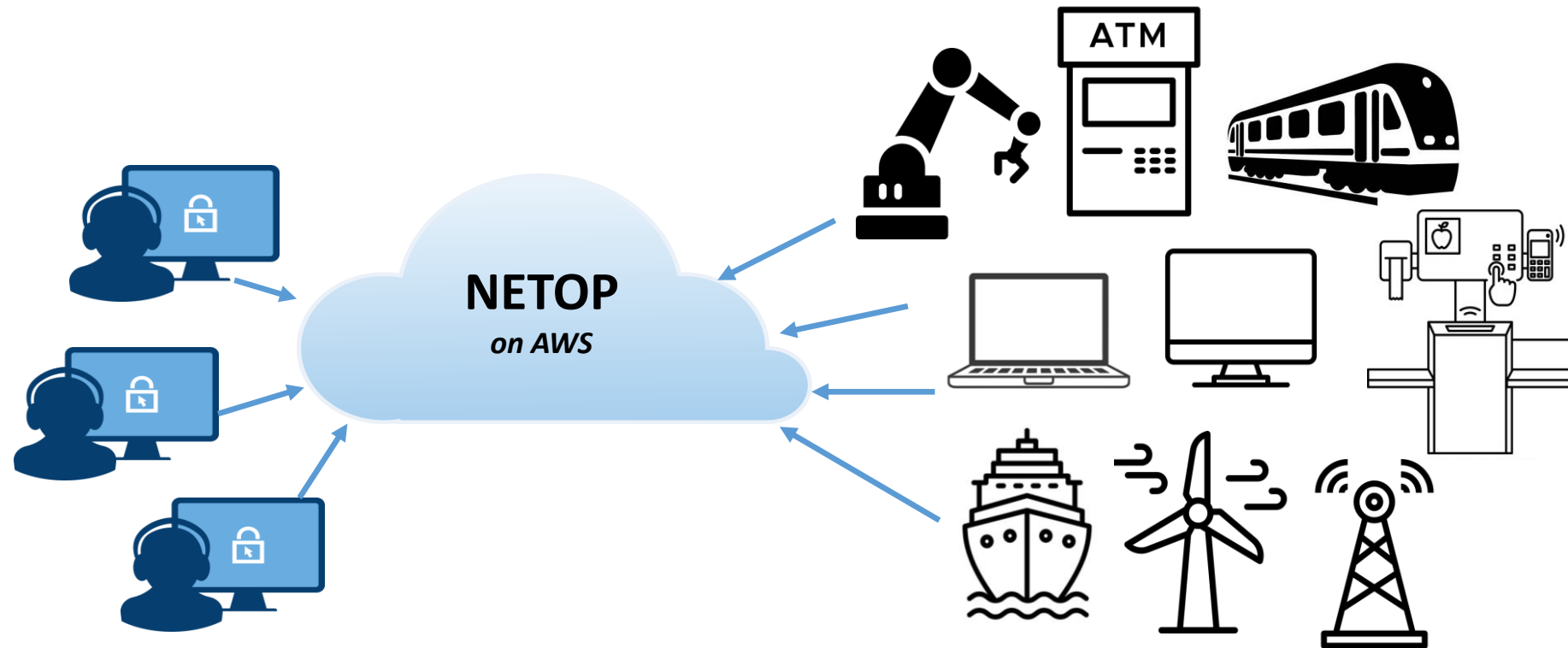
Netop

Netop

Netop is the global secure remote access software leader

Netop supplies secure remote access software for more than 30 years, with thousands of customers and millions of users in business-critical industries across the globe

Netop allows technicians, employees, experts, engineers and contractors to remote control critical devices for day-to-day remote operations or troubleshooting purposes.



Our Locations



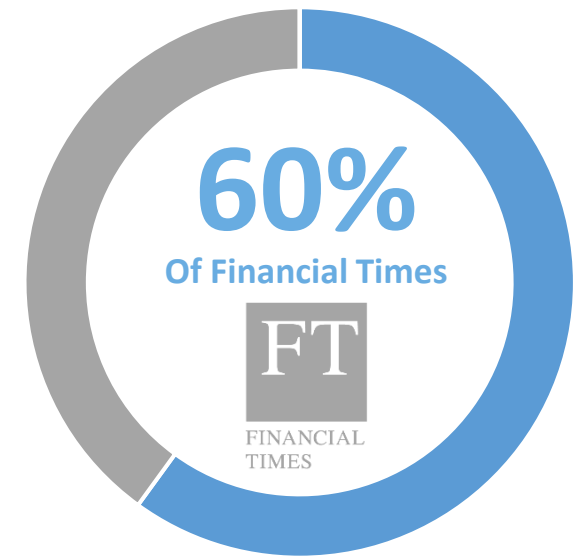
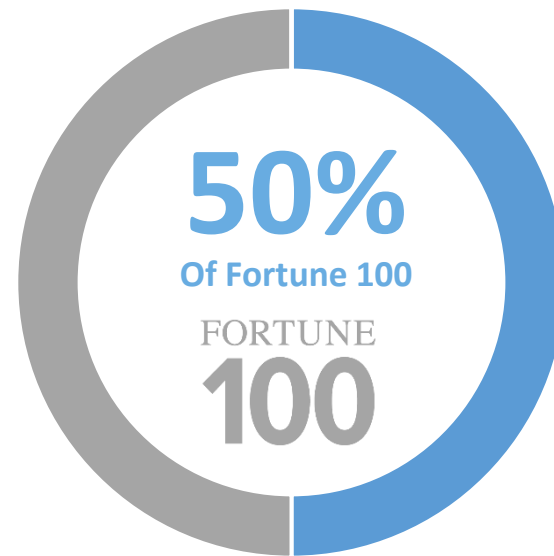
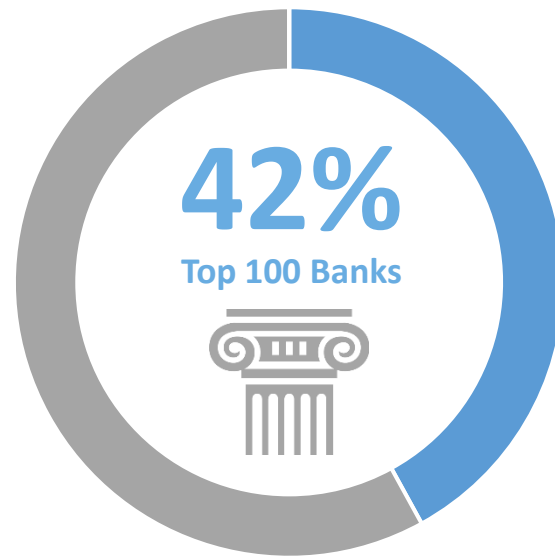
Chicago
USA

Munich
GERMANY

Bucharest
ROMANIA

Manila
PHILIPPINES

Netop



OUR CUSTOMERS

Retail



Financial



Manufacturing



Product Integrators



Healthcare



Government



INDUSTRIES NETOP SERVES



Retail



Financial



Government



Manufacturing



Utilities



Healthcare



Education



Transportation

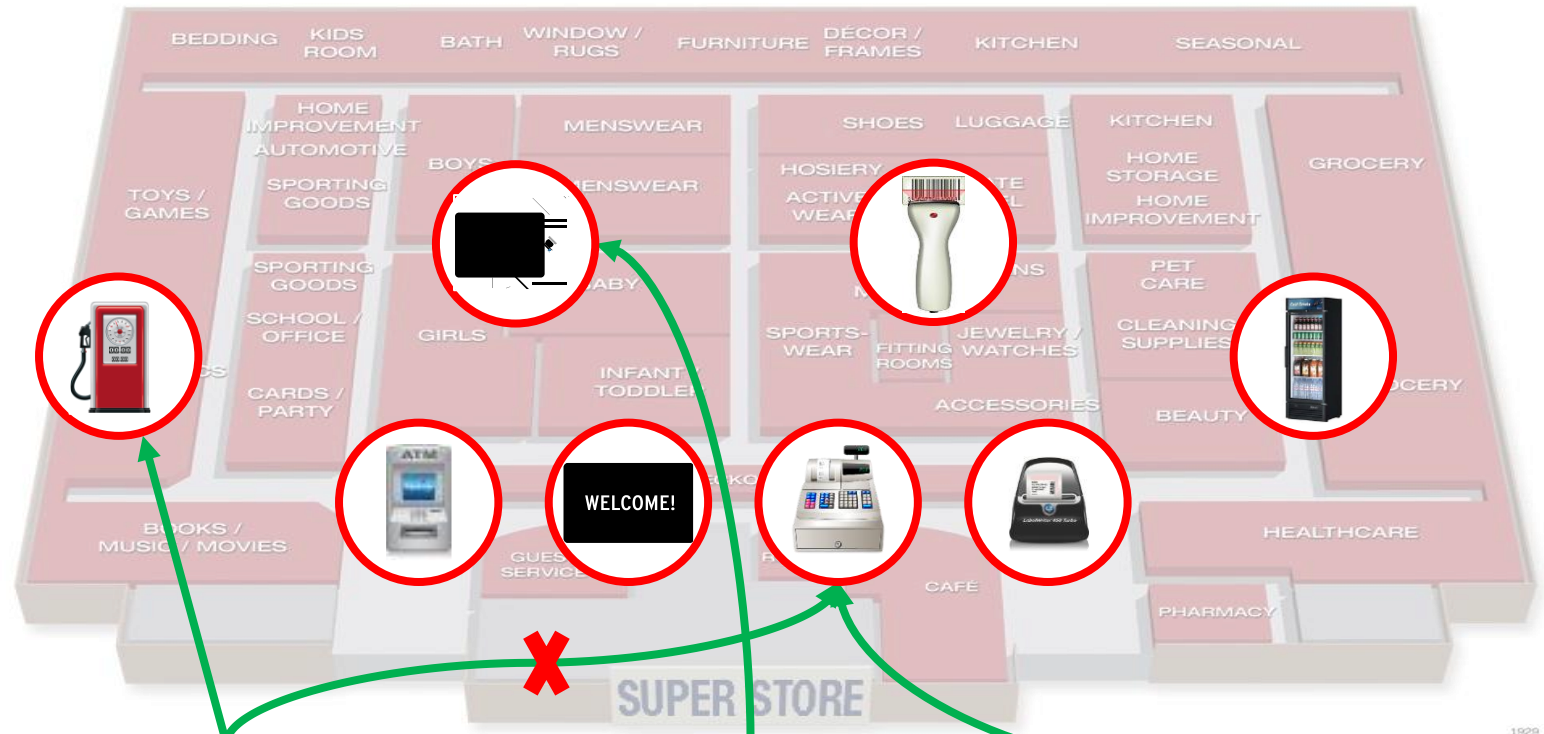
Short Remote Access demo video

NETOP

Vertical industries Use-Cases



Retail



TOSHIBA



Diebold Nixdorf



External vendor



IT helpdesk



Store manager

1929



Retail

TOSHIBA



Retail Remote Control Use-Case

- Service Point of Sale Devices and Kiosks
 - Remote troubleshooting of Terminals and SCO lanes
 - Confirm updates to touchscreen layouts
 - View operational screen flows (SCO)
 - Software installations, upgrades, patches
 - Troubleshoot and support integration of applications and middleware
 - Run trainings and live support
 - Out-of-band system support (Intel vPro)
 - Capture screenshots for documentation and training
- External Vendors Access Management - Manage vendor remote access and support



Retail – Specialty Gas/Petrol Stations



External vendor



IT helpdesk



Store manager

Specific Petrol Stations Use-Cases



**Retail – Specialty
Gas/Petrol Stations**

- Remote Access of all devices and systems in a petrol-station
 - POS devices, Self-checkout equipment
 - Fuel Dispensers, including self-service fuel dispensers
 - Tank Gauges
 - Vending machines
 - Back Office Systems
 - Car Wash Controllers, Car Wash Entry Devices
 - Cash Automation at Express Lane Self-Checkout
 - Coupon Validation, Clearing & Fraud Protection systems
 - Electronic Price Signs systems, Interactive Suggestive Selling
 - Fuel Management Systems
 - Routers, Access Point Devices
 - Loyalty Systems
 - Mobile Payment Systems
 - Security Camera, Audio-Video Surveillance
 - Smart Ambient sound systems
 - Smart Air Conditioning;
 - Access control, security systems
 - Smart lighting systems, power management systems
 - Coffee equipment and coffee machines



ATM Remote Control Use-Case



Financial

- Service ATM Devices and Kiosks
 - Remote troubleshooting of ATM and ITM terminals
 - Confirm updates to touchscreen layouts
 - View operational screen flows and maintenance interface
 - Software installations, upgrades, patches
 - Troubleshoot and support integration of applications and middleware
 - Run trainings and live support
 - Out-of-service system support (Intel vPro)
 - Capture screenshots for documentation and training
- Manage vendor remote access and support



HYOSUNG

OKI



Netop

Machinery Remote Control Use-Case



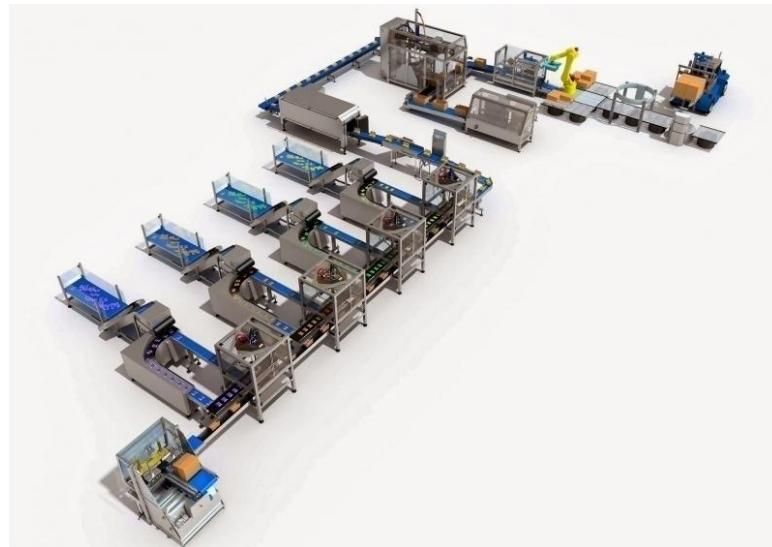
Manufacturing

- Service Manufacturing Robots and Assembly Lines
 - Remote Access of Multi-purpose manufacturing lines robots
 - Multiple technicians need to work at the same;
 - Software installations, upgrades, patches
 - Troubleshoot and support integration of applications and middleware
 - Run trainings and live support
 - Out-of-service system support (Intel vPro)
 - Capture screenshots for documentation and training
- Manage remote access and support for contractors



SIEMENS

OMRON



Netop

Medical and Laboratory Equipment Remote Control Use-Case



Healthcare

- Remote Access into controlled Biohazard manufacturing environments;
- Work from home on large laboratory equipment;
- Multiple layers of regulatory compliance;
- Patient data privacy & regulatory compliance (HIPAA);
- Dedicated laboratory & medical research environments;
- Multiple lab technicians need to work remotely at the same time;
- Manage remote access and support for specialized medical contractors

RADIOMETER 

SIEMENS

OMRON



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Heavy duty equipment remote access



Utilities and Public
Services

- Remote Access into heavy duty and business critical equipment;
- Work from home on turbines, generators, water treatment and public services equipment;
- Multiple layers of regulatory compliance;
- Remote access into control rooms that need to monitor 24/7 operation;
- Multiple lab technicians need to work remotely at the same time;
- Remote sessions in hard-to-reach locations over bad and/or expensive data connectivity'
- Manage remote access and support for specialized technicians

ABB

SIEMENS

ANDRITZ



Netop

Airlines and Airport Technologies



**Airlines and Airport
Technologies**

- Remote Access into heavy duty and business critical equipment;
- Work from home on Conveyor Lines, X-Ray equipment, Passport control, Immigration and airport automation lines;
- Multiple layers of regulatory compliance;
- Remote access into control rooms that need to monitor 24/7 operation;
- Multiple/Global technicians need to work remotely at the same time;
- Manage remote access and support for specialized technicians

SIEMENS

AIRBUS
DEFENCE & SPACE



Netop

MULTI-PLATFORM SUPPORT

TCX[™] SKY



iOS



DEPLOYMENT OPTIONS



On Premise



Cloud



**Hybrid (with
optional VPC)**

ON PREMISE COMPONENTS



Guest

Allows workers to remotely access and support any machine running a Host module



Host

Allows a target machine to be remotely supported by any computer running the Guest module



Security Server

Centralized security management and logging from an on-premise server



WebConnect

Web-enabled connectivity through unmanaged networks and firewalls



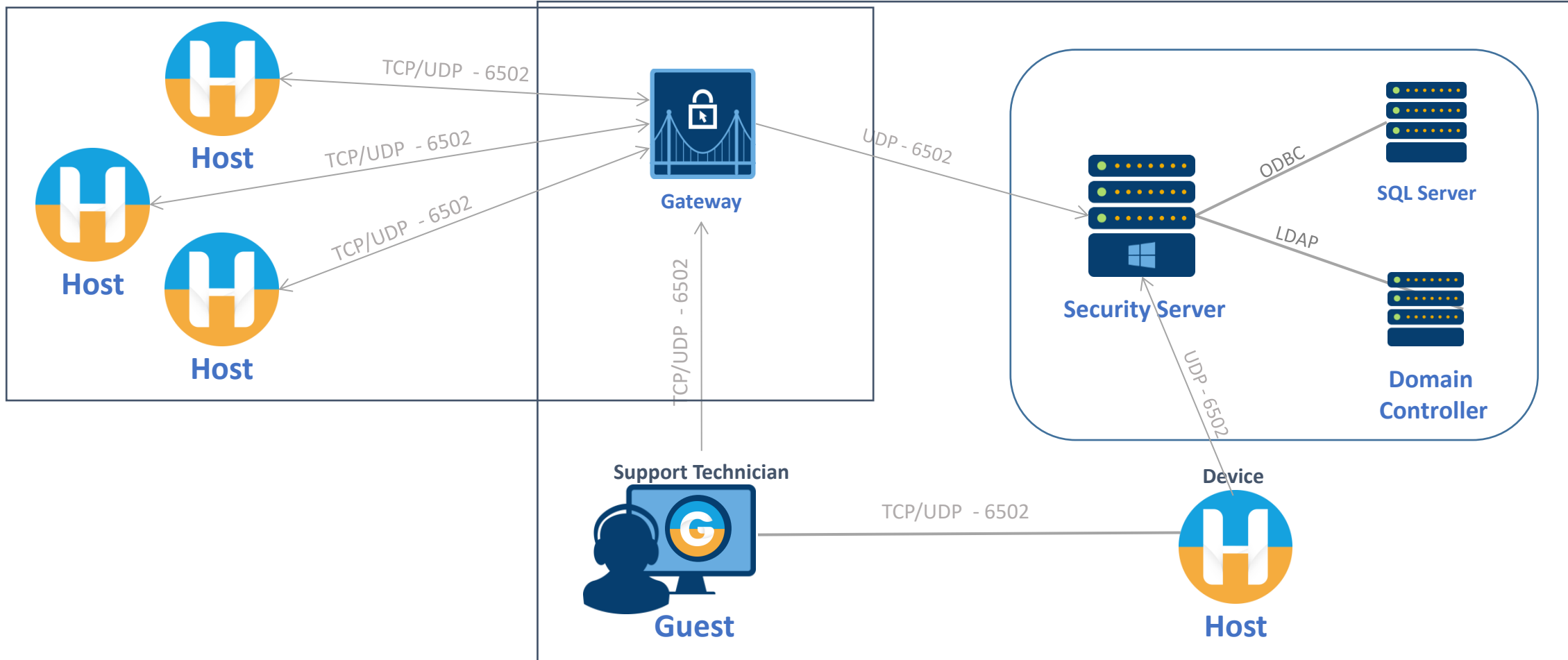
Gateway

Bridges and routes NETOP traffic across different communication protocols and networks

ON PREMISE Architecture (with Gateway)

LAN 2 / VLAN 2

LAN 1 / VLAN 1



NETOP Portal Components



Guest

Allows workers to remotely access and support any machine running a Host module



Host

Allows a target machine to be remotely supported by any computer running the Guest module



Portal

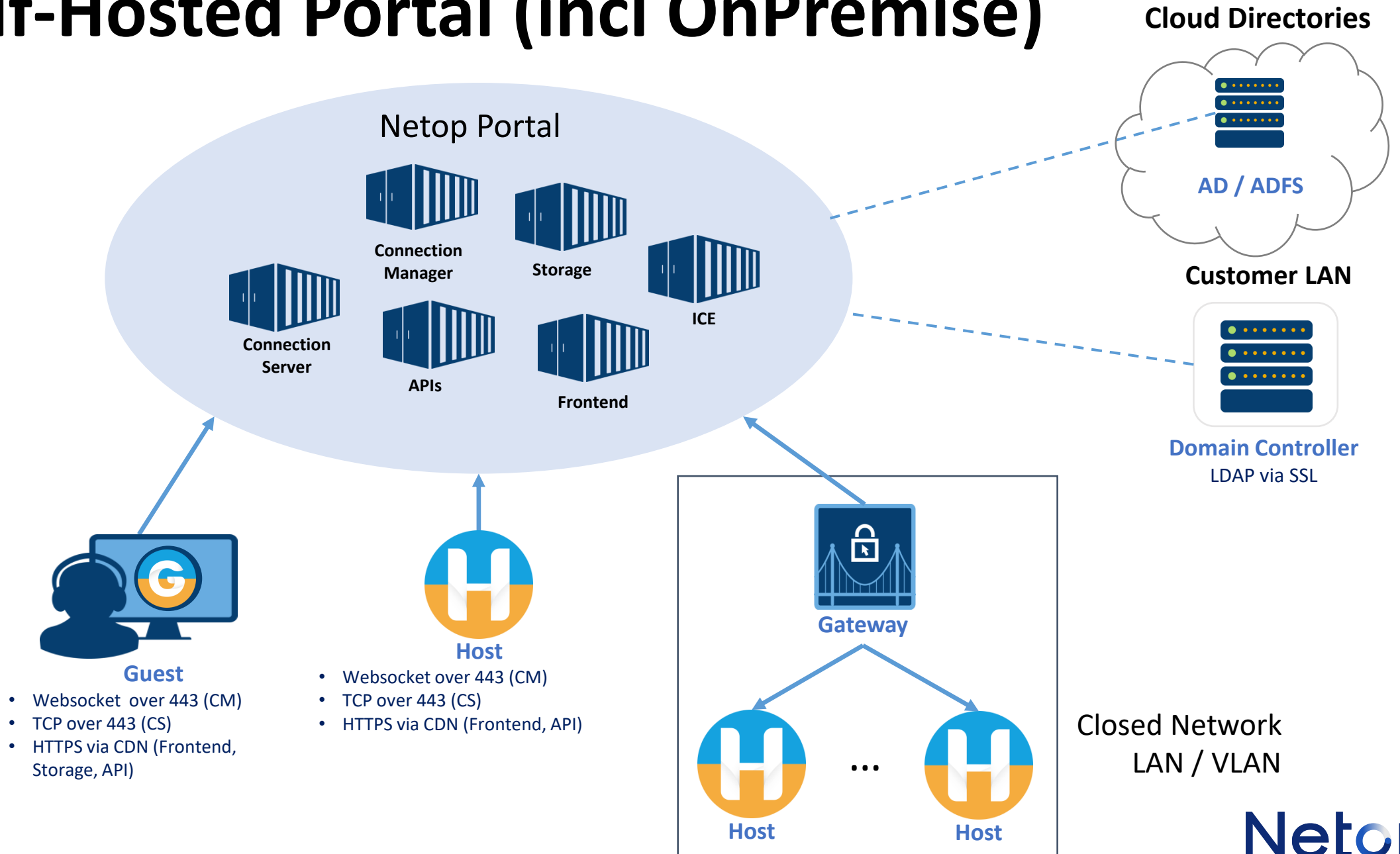
Internet based connectivity, centralized security management and logging from a secure cloud



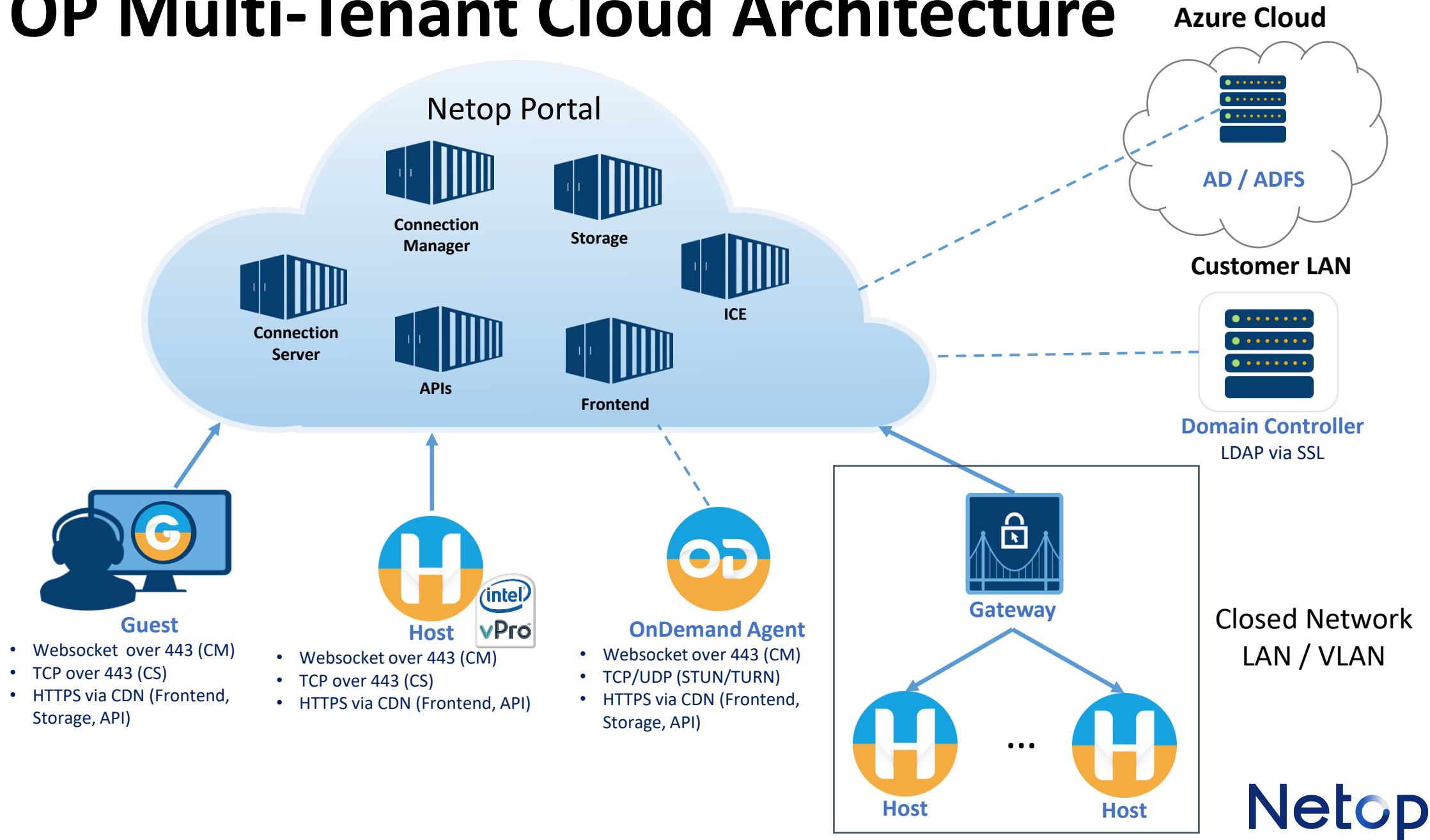
OnDemand Agent

Lite weight application downloaded and run on demand by remote user for support and assistance

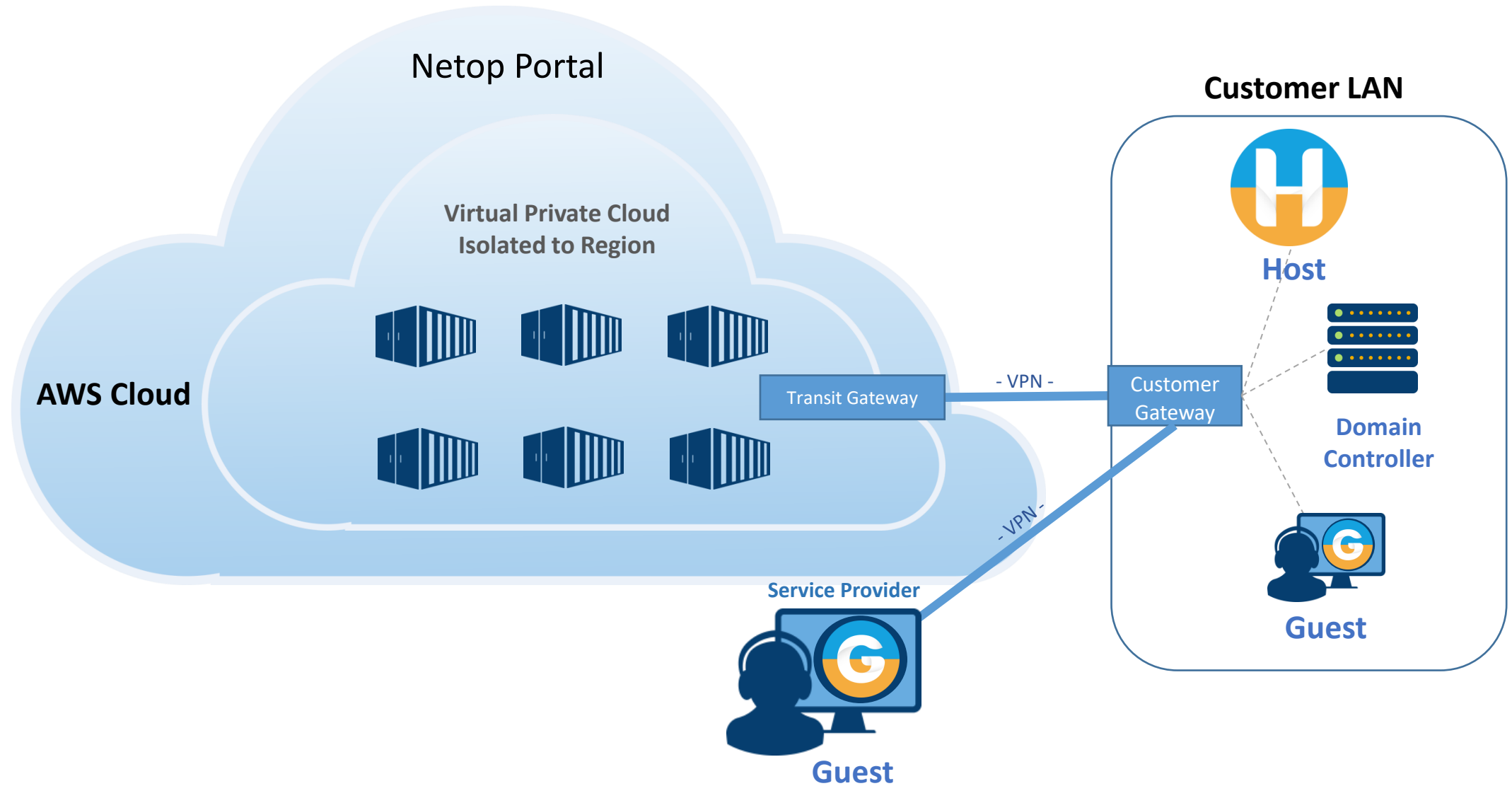
Self-Hosted Portal (incl OnPremise)



NETOP Multi-Tenant Cloud Architecture



NETOP Single-Tenant Cloud Architecture (Virtual Private Cloud)



VIRTUAL PRIVATE CLOUD



Hybrid (VPC)



- Managed by NETOP for a single tenant
- Use your own domain and security certificates
- IP range selection based on your needs
 - Publicly routable or private classes
 - Requires little or no changes to existing network rules and policies
- Secure, redundant site-to-site VPN connections
 - End to end encryption
 - Configurable tunnel options
- Allow for global deployment or isolate to specific regions
 - 18+ public regions available and growing *

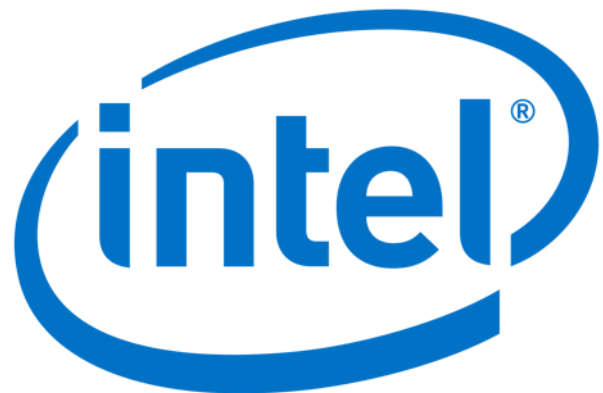
* Special contractual regulations apply on AWS regions in mainland China, to accommodate China's Personal Information Protection Law

CLOUD SECURITY & COMPLIANCE

- Encrypt the line – Data transmitted between Netop components is encrypted end-to-end using the Advanced Encryption Standard (AES) with key lengths of minimum 256 bits.
- Integrity and message authentication – The integrity and authenticity of encrypted data is verified using the Keyed-Hash Message Authentication Code (HMAC) based on the Secure Hash Standards SHA-1 (160-bit) or SHA-256 (256-bit).
- Key exchange – Encryption keys for encrypted data transmissions is exchanged using the Diffie-Hellman method with key lengths of minimum 2048 bits and minimum 256-bit AES and 512-bit SHA HMAC verification.
- Security and industry specific compliance standards, including PCIDSS, GDPR, HIPAA, FIPS, NIS2 and ISO 27001.
- Cloud services and security provided through AWS:
 - [AWS Compliance overview](#)
 - [Cloudfront secure CDN](#)
 - [Elastic Container Service \(ECS\)](#)
 - [Elastic Container Registry \(ECR\)](#)
 - [AWS Fargate](#)
 - [Site to Site VPN](#)
 - [Web application firewall \(WAF\)](#)
 - [Regions](#)



Remote Access to BIOS on Intel vPro



- Industry first remote access to Intel vPro chips
- Advanced BIOS commands performed remote
- Full keyboard video and mouse commands on the BIOS interface
- Low-level chipset maintenance and operation
- Support for Netop remote communication profiles
- Device agnostic, OS agnostic, built to access the heart of the systems

[Intel vPro BIOS remote access - short demonstration](#)

INTEGRATIONS – APIS

- Retrieval of audit log information (REST)
- Launching of the Guest
 - Start
 - URI (Desktop)
 - CLI (Desktop)
 - Direct (browser based)
 - Command (for a certain device)
 - Remote control
 - File transfer
 - Authentication token (pre-authenticated for a specific user)
- Retrieval of the device identifier (REST)
- Management console API (REST)
- Task automation (centrally defined on the Portal)



Tunneling feature – access to IoT
devices and PLCs

Work from Home, Work from Anywhere

Work from Home, Work from Anywhere is here to stay

Remote Access projects are at the heart of work from home new enterprise architectures;

Hybrid work, few days from the office and few days from home, is the new standard;



External Vendors, External Consultants access

External contractors need access into internal devices for business purposes

External contractors are always under additional scrutiny when compared to internal employees

VPN access is usually not considered restrictive or granular enough for external contractors – VPN access means giving access to the entire network while Remote Access is giving access to one single endpoint where contractor has the need

VPN access can be restricted by security procedures, compliance or regulation rules

External contractors remote sessions can be monitored via additional logging mechanisms, for security, audit or compliance purposes

External contractors remote sessions can be recorded for additional security, audit or compliance purposes

External contractors work can be done much faster and cost effective with remote access solutions in place

SUPPORT FOR MOBILE DEVICES

MOBILE HOSTS



- **Hosts available for**
 - Android 2.2 +
 - Windows Mobile / CE versions 5 through 7
- **Communication options**
 - Portal / Cloud Connectivity

HOST ADD ON FOR ANDROID



- **Host Remote Control Add On**

- Separate installation, once Host install complete
- Expands feature set to include full KVM and Mobile skins

- **Add-on available for following manufacturers**

- Samsung
- LG
- Sony
- Archos
- Lenovo
- Bluebird
- Mitac
- MioCare
- Intermec

- Partnerships with manufacturers are constantly updated on our website

PRODUCT VALUE

PROBLEMS SOLVED



- **Secure remote access** and support for staff, vendors and trusted 3rd parties that can help these organizations become PCI, HIPAA, GDPR, ISO 27001, NIS2 compliant
- **Modern Hybrid Architecture** that brings the best of both On-Premise and Cloud based worlds to the connected enterprise;
- **Remote troubleshooting, management and break-fix:**
 - Advanced enterprise features
 - Integrated file transfer and scripting
 - Systems management (registry, command prompt, windows events)
- **Event logging and recording for auditing purposes;**
- **Cross-platform, multi device flexible support**



SUPERIOR SECURITY



FLEXIBLE CONNECTIVITY



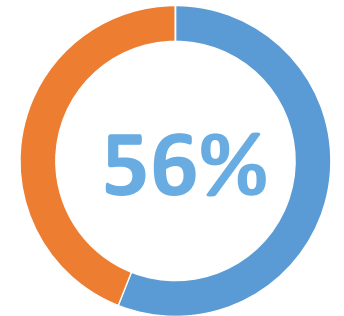
GREATER EFFICIENCY

WHY CUSTOMERS CHOOSE NETOP

Security



- Communication encryption
- Granular user management
- Manage user privileges
- Multi-factor authentication
- Centralized rights management
- Session logging and recording
- Complete audit trails
- Centrally managed third-party access
- Helps organizations comply with PCI, GDPR, HIPAA, ISO 27001



**56% of cyber attacks
use remote access as
an attack vector**

WHY CUSTOMERS CHOOSE NETOP

Flexibility



- Both on-premise local network set-up and cloud-based
- Support for AD, LDAP, RADIUS, Azure, RSA SecureID, Smart Cards
- Physical and virtual architectures
- Desktop, laptop, server, ATM, POS, mobile, headless & embedded
- x86, x64 and ARM
- Low bandwidth & high latency connections
- Legacy platforms and devices
- Multiple integration options for web-based or installed agents/clients (URI, CLI, ActiveX, etc);



WHY CUSTOMERS CHOOSE NETOP

Efficiency

- Complete KVM controls with integrated file transfer and remote management tools
- Scripting tool for automation of tasks
- Consolidate your remote control tools
- Decrease administrative overhead
- Reduce training burden
- Improve compliance reporting
- Decrease the cost of service delivery
- Faster issue resolution times for better team performance



GDPR COMPLIANCE

GDPR Odyssey – Part 1

- **DATA SECURITY**

- Encrypt from Point To Point
- Manage User Access
- Manage User Permissions
- Document What Happens

- **CONSENT** of NETOP sessions is explicitly required in certain cases and it has to be:

- freely given
- specific, informed and unambiguous indication
- a statement or by a clear affirmative action

NETOP'S CONFIRM ACCESS option is suitable for attended and unattended devices. If no user is logged on to the device, the access confirmation prompt is not delivered



GDPR Odyssey – Part 2

- **DATA MINIMIZATION**

- Any remote access tool that provides screen transfer and KVM (keyboard, video, and mouse) control runs the possibility of showing a remote technician everything on the user's screen during a support session.
- Following the principle of purpose limitation, a remote technician would only have access to the applications or area of screen necessary to complete the task at hand:
 - Application based rights (Application Whitelisting);
 - User based rights;

- **RIGHTS OF RECTIFICATION & ERASURE**

- Ease of use in user data management by:
 - User Directory integration (including MS Active Directory) – direct or through federated services;
 - Centralized user management by using NETOP Security Server;
 - Centralized session logging and recording storage at the Security Server level



Agent Based vs Agent Less software

- Agentless software use generic RDP, SSH, VNC, TELNET, Raw TCP/IP protocols.
- All respected remote access solution providers, including NETOP, do not use generic protocols but use proprietary protocols for extensive security;
- While agentless solutions may sound tempting for IT departments, because of reduced administration overload, it is in fact considered a major vulnerability by security experts. We encourage customers to prioritize Cybersecurity focus and realize that any solution working on generic protocols can easily be hacked, simply because it uses the same generic remote protocols as a hacker would use.
- RDP is reported as the number 2 attack vector for malware and ransomware attacks by the Federal Bureau of Investigation (FBI) of the United States of America, surpassed only by the all-known Phishing attacks. Near term forecast is RDP will quickly become the number 1 attack vector in the next few years.
- In case an attack happens to a company via RDP or SSH or VNC or TELNET they will naturally decide to stop the use of these protocols in the company because of potential security breaches. Stopping these protocols will make the agentless remote control solution useless, while NETOP is not affected;

NETOP is the only secure remote control solution that allows complete replacement of RDP, SSH and VNC connections, by using our own NETOP proprietary session protocol;

QUESTIONS

THANK YOU