



THE REYNOLDS
COMPANY
ELECTRICAL SUPPLY

Remote Access Solutions

July 27, 2022

Our Guest Panelists



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2022 Online Events

Register to receive a calendar invite



TECH TALK

Month	TechTalk Topic	YouTube Link
January	Installed Base Evaluations (IBE) Overview	https://youtu.be/pwPs8NuF2KE
January	Stratix Portfolio Update	https://youtu.be/8eUy8feCtXM
February	Energy Monitoring with PowerMonitor	https://youtu.be/uNo-y-QDHIE
February	Quality Remanufacturing by Rockwell Automation	https://youtu.be/rC1oo_TGjKU
March	none	n/a
April	ESolutions Punchout Integration	https://youtu.be/mWLCREX4Ofw
May	Proactive Digital Maintenance Strategy with Fiix	https://youtu.be/h9IYGvBRLHg
June 8	Impact of DCOM Hardening Patch	https://youtu.be/qYte4oRNzCk
July 27	Remote Access Solutions	

USER GROUP

Month	Description	YouTube Link
January	Rockwell Automation Controllers & I/O	https://youtu.be/ovmxFPIv-ZI
February	Intro to Rockwell Automation Operator Interfaces	https://youtu.be/82tyizbnOGQ
March	Smart Safety for Machines	https://youtu.be/rjihZ2wWIsM
April	Studio 5000 Update	https://youtu.be/tT3FANr8JEA
May	Process System Update	https://youtu.be/_ALxxNuzBms
June	CLX Redundancy Network Architectures	Pending
July	Modernization Solutions	
August	Power Update/IEC 61850 ProSoft Module	
September	View SE/ISA 101	

Visit our **Resources** page on reynoldsonline.com



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Series of recent events

Traditional work in office



Social distance restrictions



Remote office

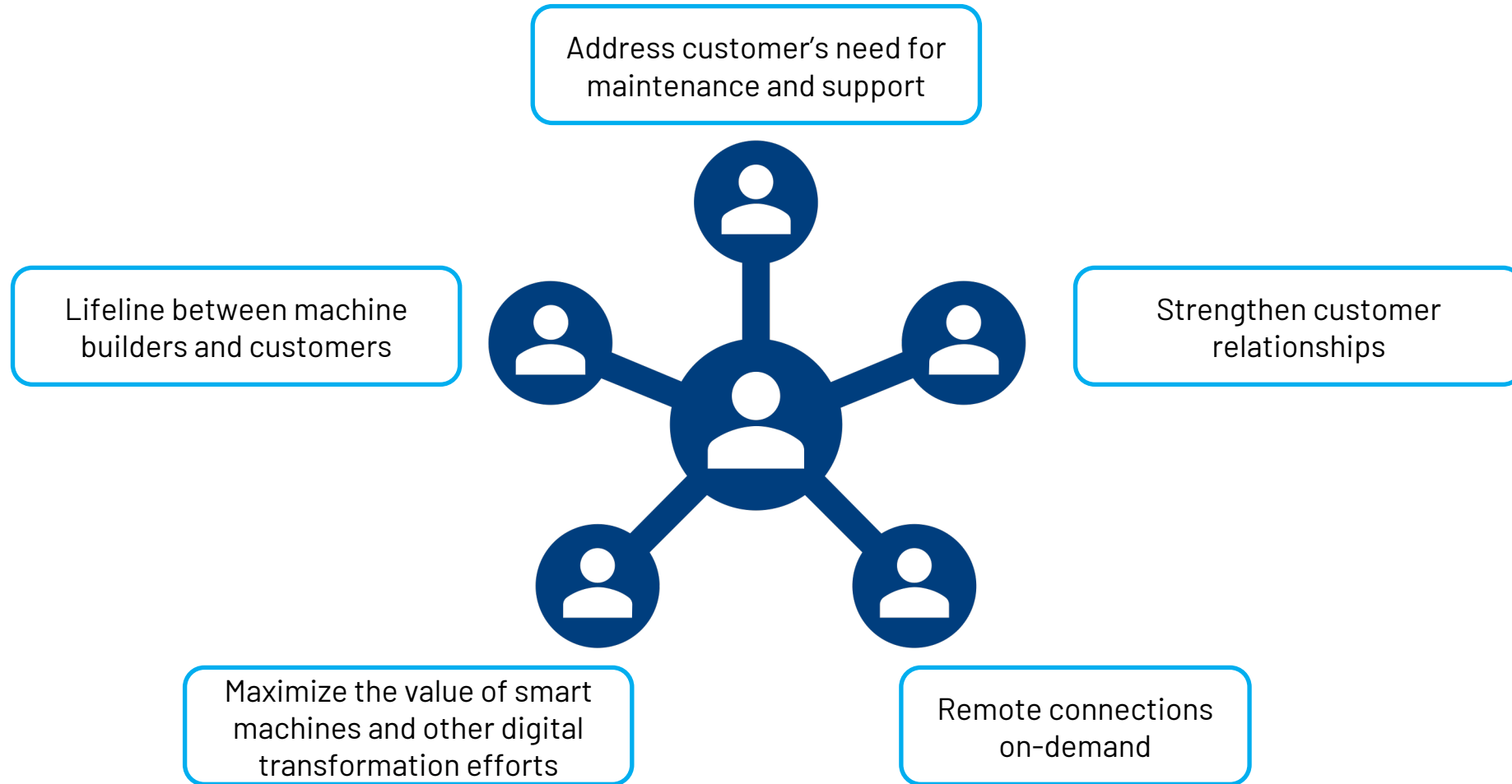


The need for remote connectivity to industrial machines have been increasing at an accelerated rate



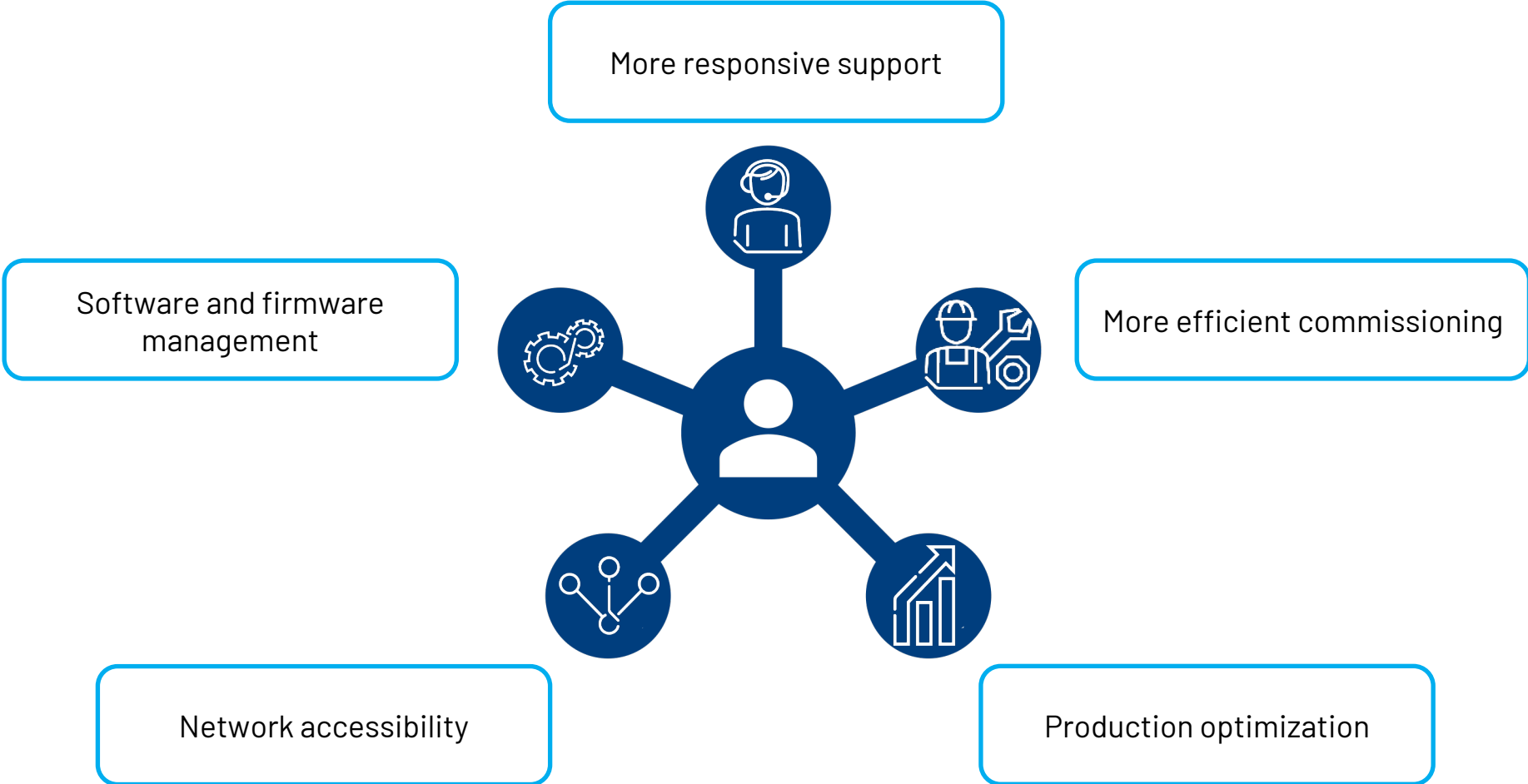
Remote connectivity

Allows support to be provided remotely when travel and plant access has been scaled back



Remote connectivity outcomes

Instantly access machine information and bring more value to organizations



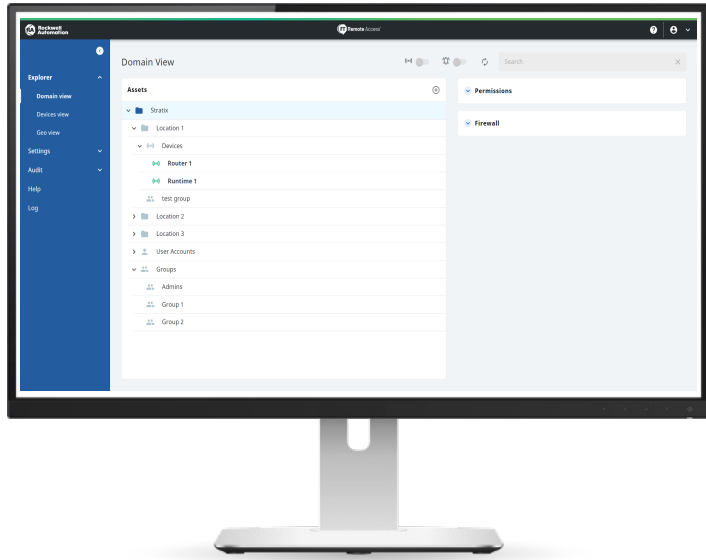


Solution overview

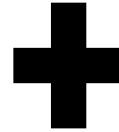


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Remote Access Solution Experience



FactoryTalk Remote Access
Software Subscription



Stratix 4300 Remote Access Router

Provides manufacturers the ability to provide the technical skills and resources while independent of physical location



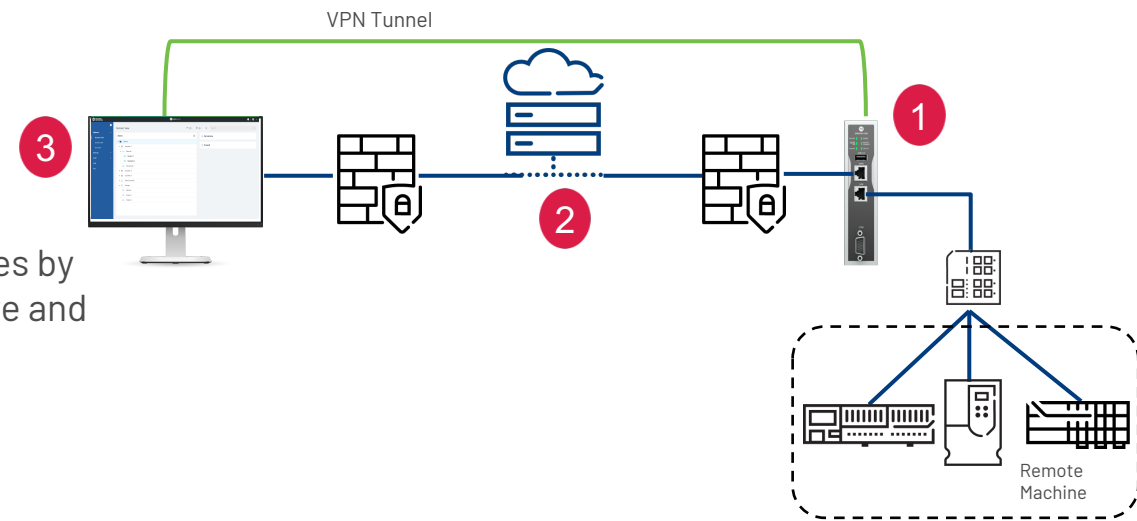
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Solution Overview

Remote Access for Industrial Equipment enables connectivity to remote machines by leveraging optimized VPN technologies. The remote access solution is a hardware and software solution.

There are three key components for remote access:

- 1 Stratix 4300 Remote Access Router** is a hardware component that enables access to remote equipment through a VPN connection.
- 2 Server Infrastructure** is a distributed cloud-based server infrastructure that maintains communication between the supervisory PC to the remote network.
- 3 FactoryTalk Remote Access** is a web-based client used to maintain and initiate remote connections.
 - Allows management of account, users and permissions, and device registration
 - Activates VPN for remote connectivity with an installable app



Being connected gives you the visibility to manage a plant more securely with an information-enabled infrastructure so you can access information whenever, wherever you need it

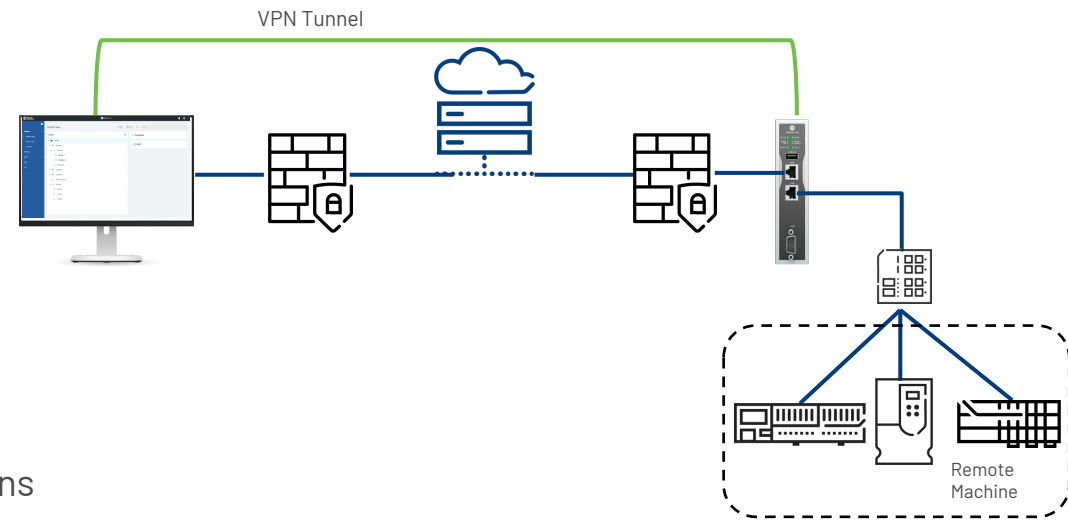


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Key Features

Key Features

- Easy and intuitive web-based user interface for configuration and management
- VPN technology optimized for industrial connectivity with outbound only connections
- User group management and permission control
- Advanced options for auditing/logging of administration changes and remote connectivity
- Support internet sharing with devices on LAN subnet, support for NAT and routing with the router
- Software subscription licensing models based on number of concurrent user connections
- Integration with FactoryTalk® Hub™, the new Rockwell Automation cloud-based product suite

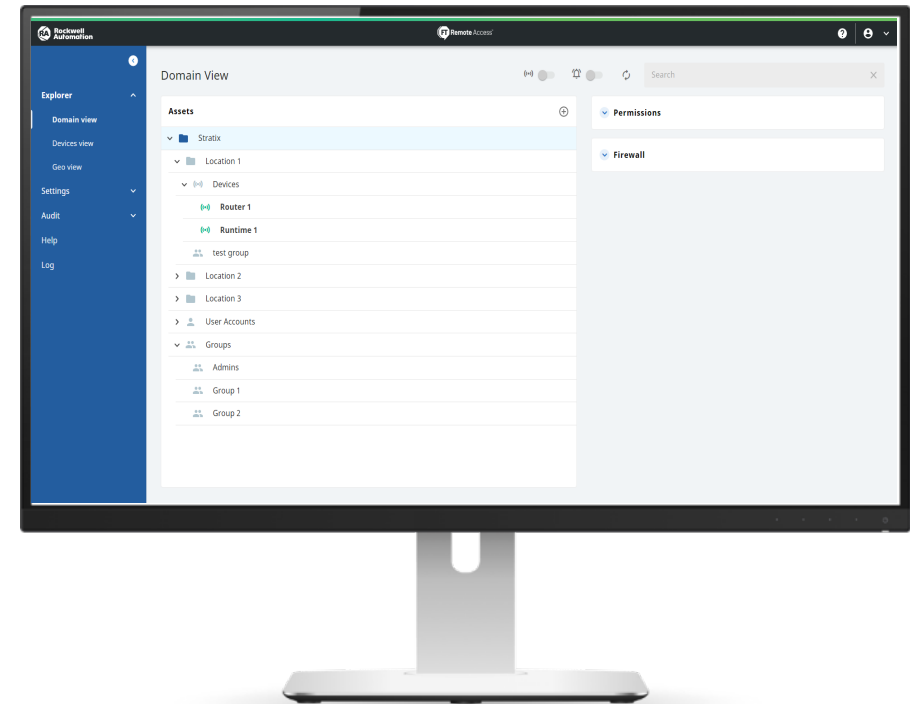


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FactoryTalk Remote Access

Highlights

- Integrated with FactoryTalk Hub cloud product suite for simplified role management, single sign-on, and easy access to other apps
 - Uses familiar MyRockwell account credentials
- Web-based client for centralized management of remote access solution
 - Initiate VPN connection and register devices through installable app
 - Create groups and role-based users to manage access
 - Configure Stratix 4300 Router and apply permission control
 - View audits and logs of domain activity and remote connection



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Stratix 4300 Remote Access Router



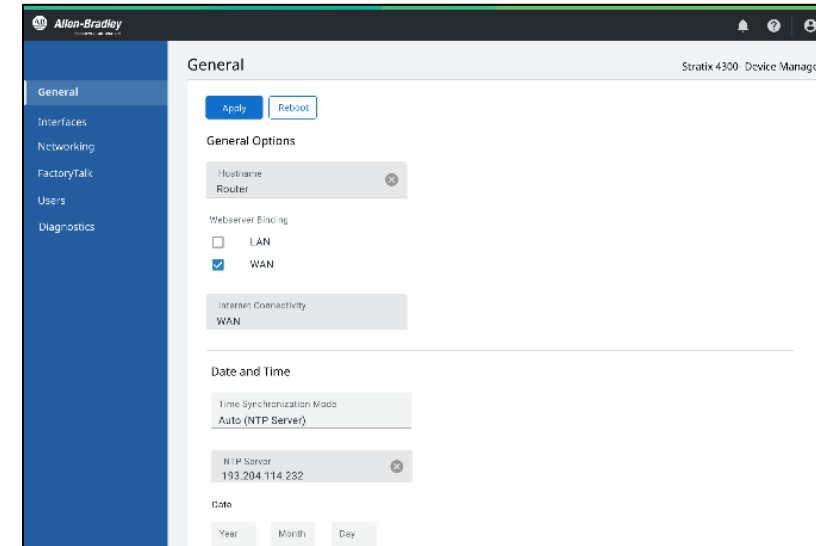
The **Stratix 4300** is a **remote access router** that supports the accelerated need for remote access connectivity. The Stratix 4300 provides the ability for manufactures and OEMs to apply the appropriate skills and resources independent of their physical location. The remote access router will initially be offered in 2-port and 5-port variants.



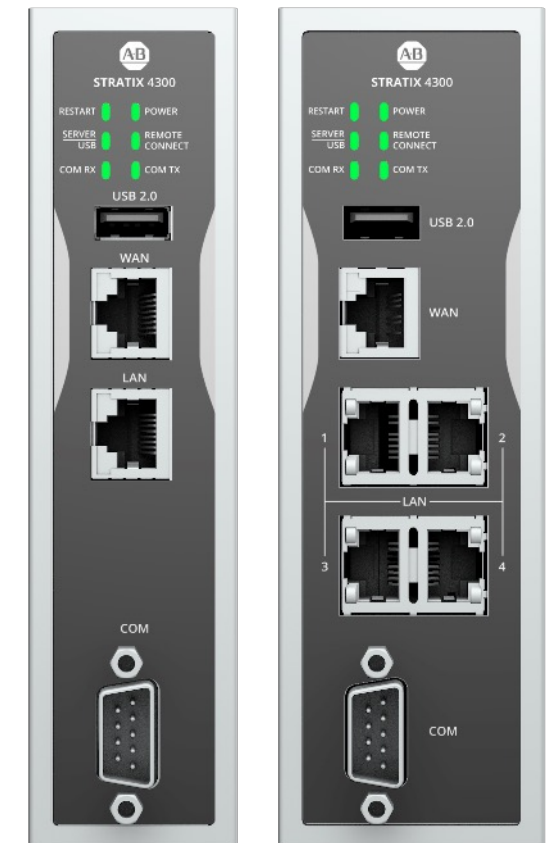
Stratix Remote Access Router

Highlights

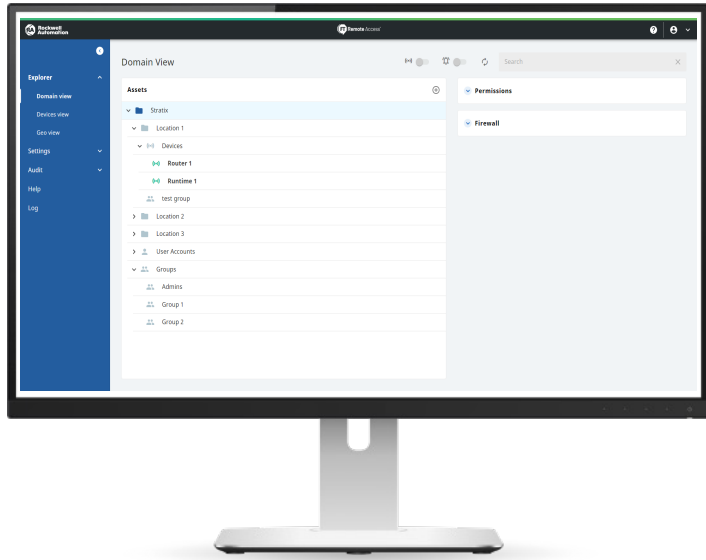
- Remote access to devices connected via Gigabit Ethernet and serial interfaces
- Quick and easy installation to existing remote networks
- First-time configuration via local Ethernet port or USB
- Management from a centralized web client after initial configuration
- Hardware commands and digital I/O
 - Can be used to allow or deny remote connectivity at the local machine



Stratix 4300 Remote Access Router	1783-RA2TGB	1783-RA5TGB
Total RJ45 ports	2	5
WAN	1 GE	1 GE
LAN	1 GE	4 GE
USB 2.0	✓	✓
Serial port	✓	✓
Digital input/output	✓	✓



Remote Access Solution Experience



FactoryTalk Remote Access
Software Subscription

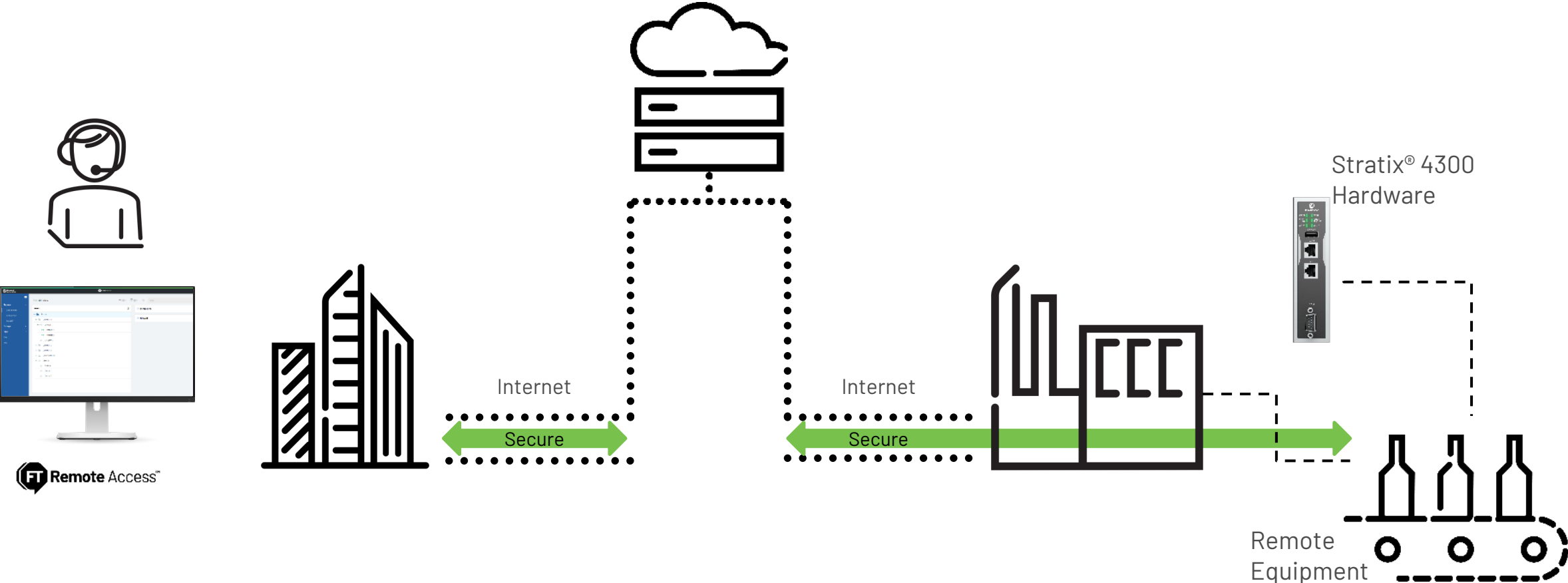


Stratix 4300 Remote Access Router

Requires one FactoryTalk Remote Access software subscription to manage the solution and at least one Stratix Remote Access Router to enable connectivity to the remote equipment



Solution overview



FT Remote Access™

Stratix® 4300
Hardware

Remote
Equipment



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Solution overview



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A Cybersecurity Partnership

Two industrial leaders coming together to help customers manage cyber risk



**Rockwell
Automation**

CYBER VISIBILITY AND THREAT DETECTION PLATFORM

Software Platform purpose-built for the Industrial Control System environment. Providing broad cybersecurity coverage for industrial vendors, devices and protocols.

TRUSTED INDUSTRIAL SERVICES SUPPLIER

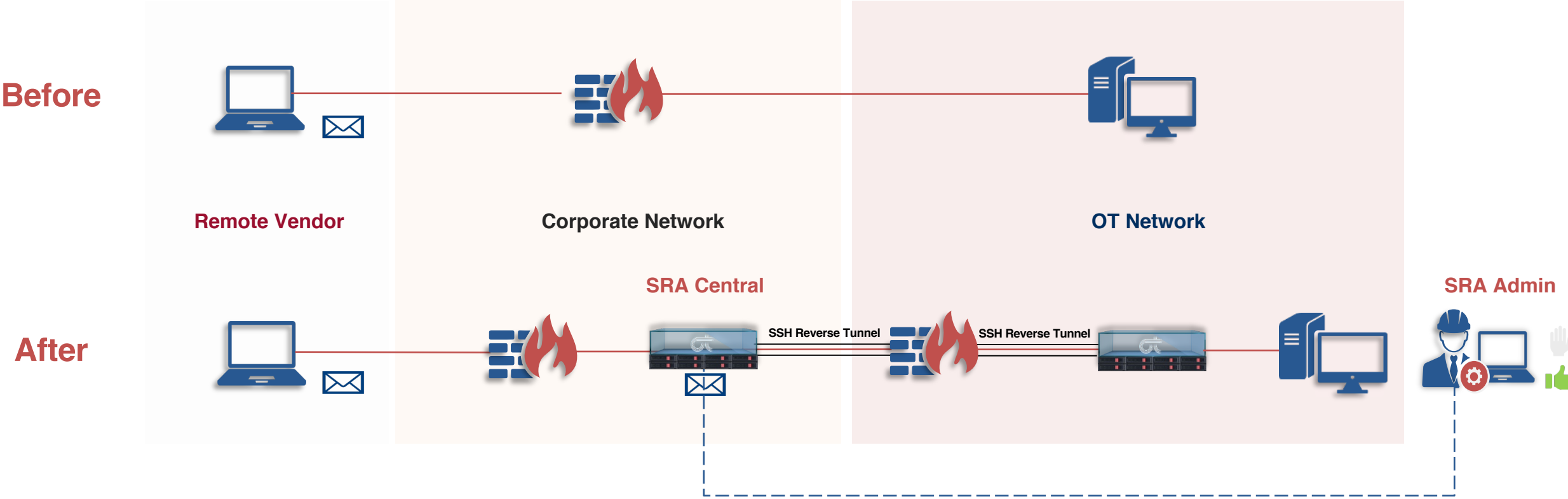
Global Provider of professional industrial services. Ability to help customers deploy cyber capabilities across their global supply chain at scale utilizing our disciplined delivery capabilities.



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Use Cases

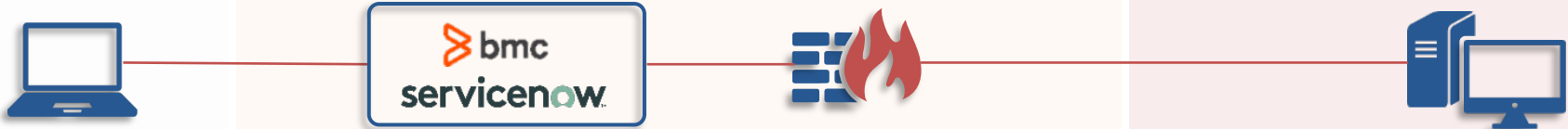
Segregate, Secure & Monitor Remote Access



Use Cases

Management of Change (MoC)

Before

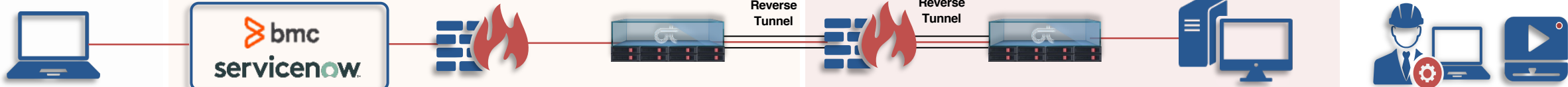


Remote Vendor

Corporate Network

OT Network

After



SRA Central

SSH Reverse Tunnel

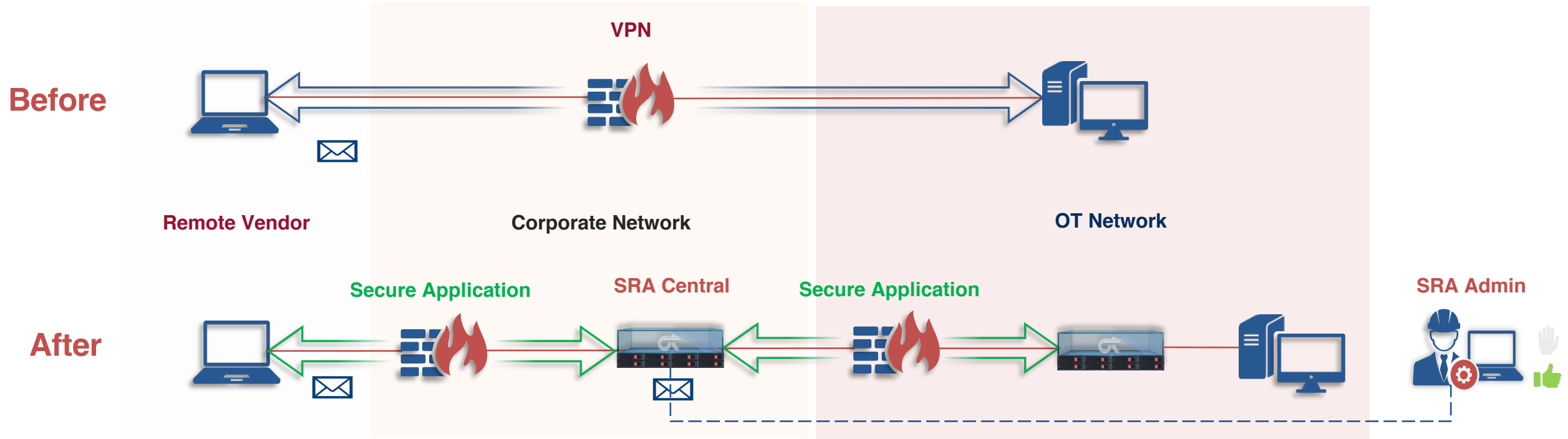
SSH Reverse Tunnel

SRA Admin

Compare MOC ticket with remote session recording

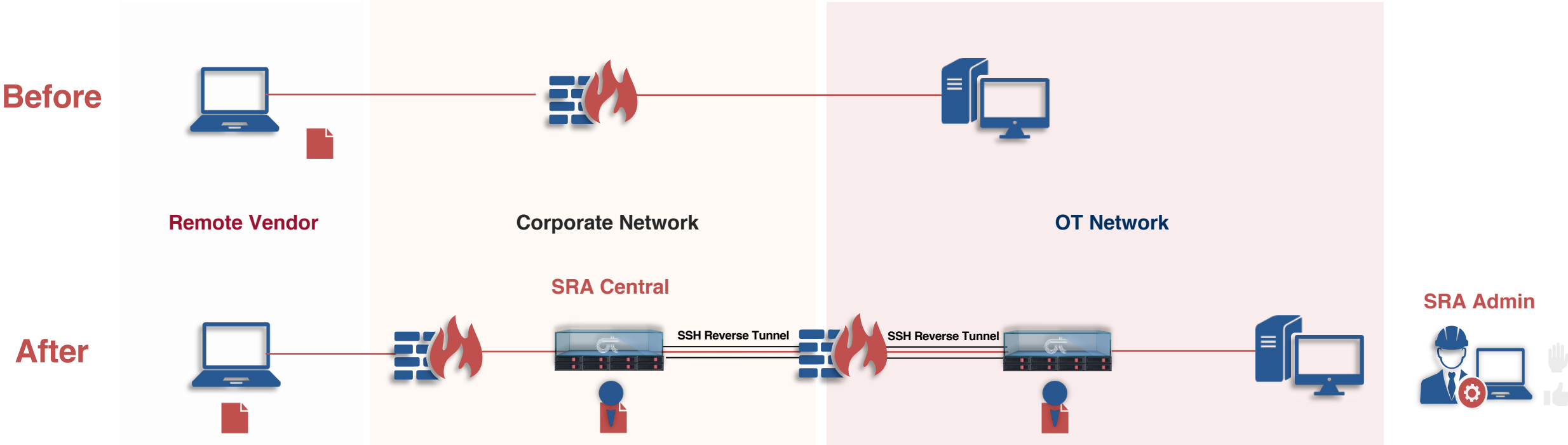
Use Cases

Segregate & Secure Access via Local Applications



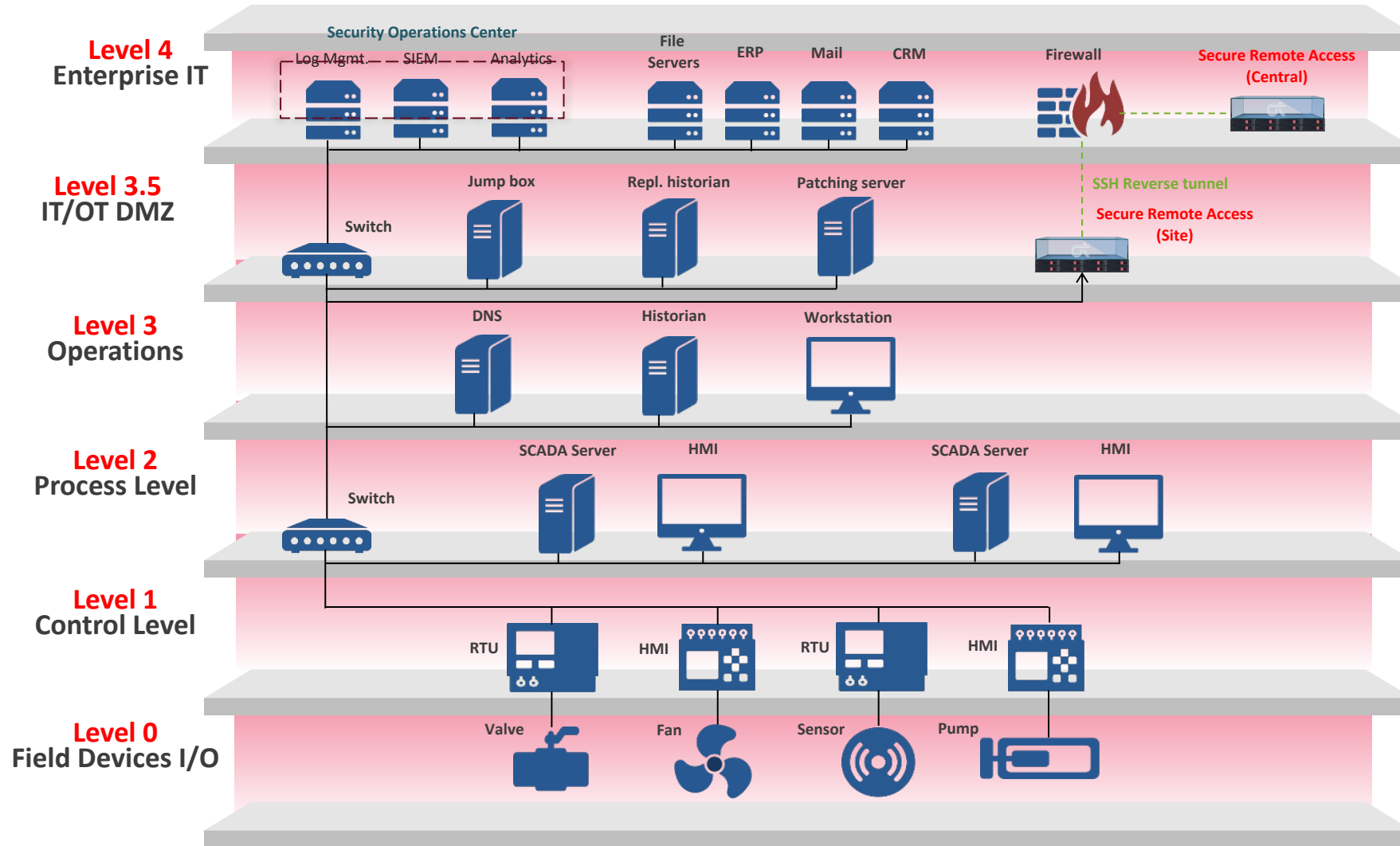
Use Cases

Secure File Transfer

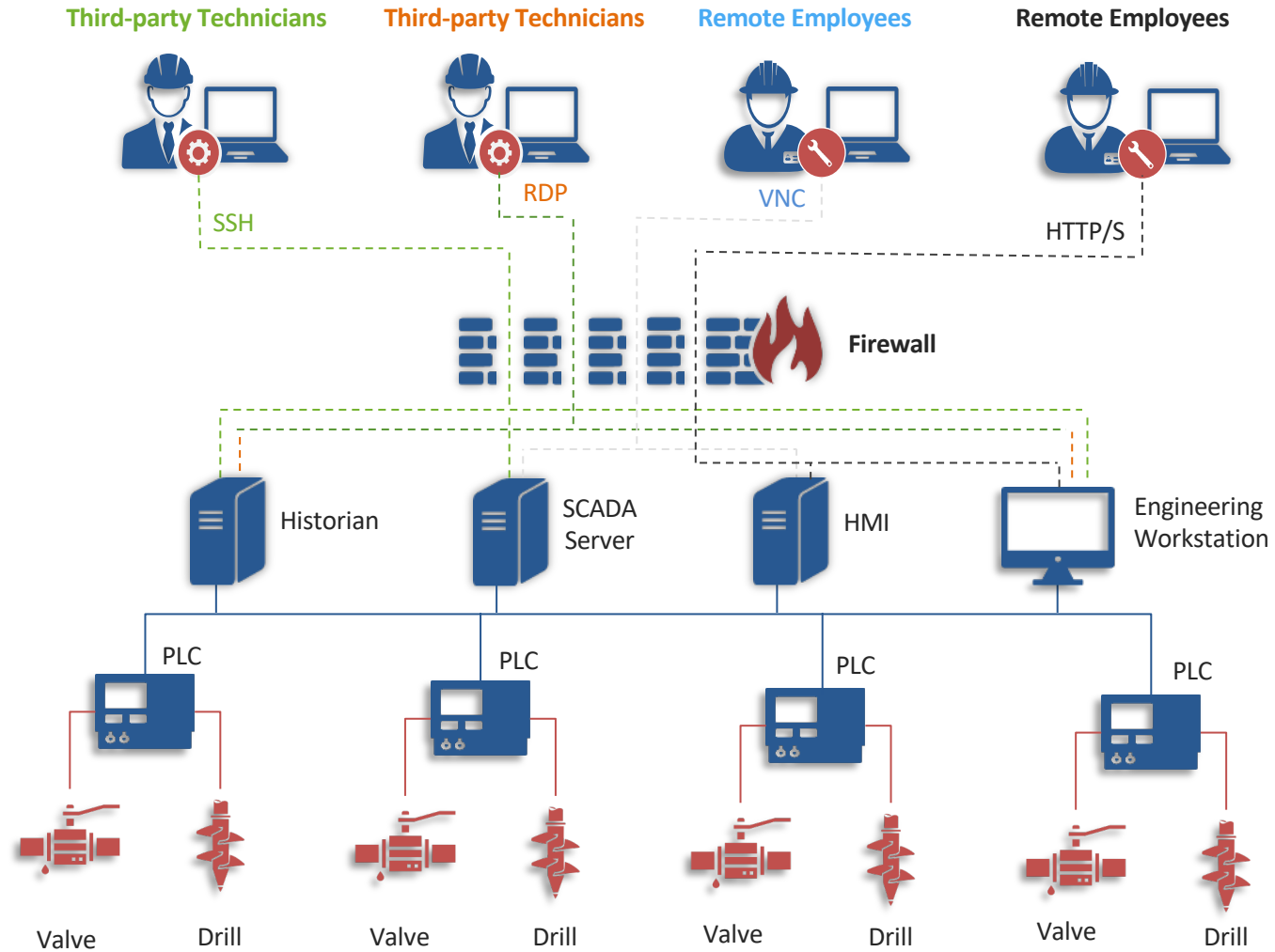


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Typical Deployment Architecture



Before Deployment of Secure Remote Access

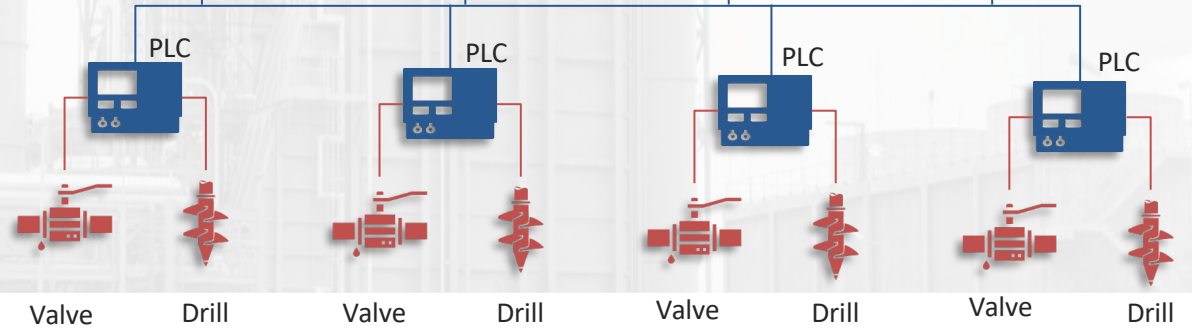
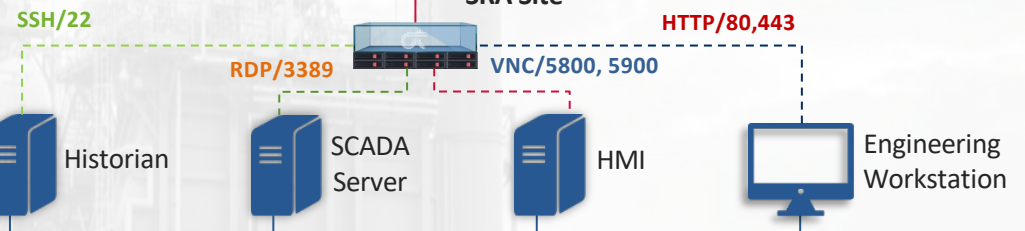
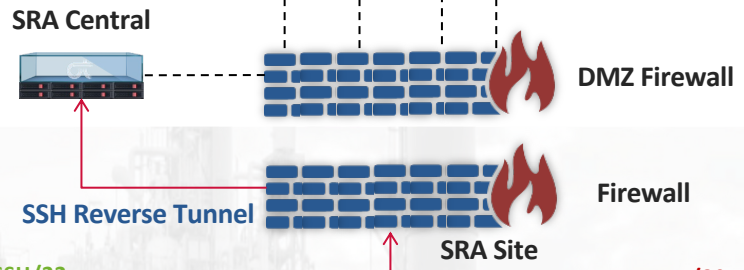


OT Network



After Deployment of Secure Remote Access

Third-party Technicians Third-party Technicians Remote Employees Remote Employees



Control

- Granular user/asset access policy
- Enforce authentication policies (MFA) and vault passwords
- Manually approve remote connections



Monitor

- Real-time "over the shoulder" video viewing of session
- "Red Button" for immediate session termination



Audit

- Audit video session recordings
- Session integrity validation using CTD activity timeline



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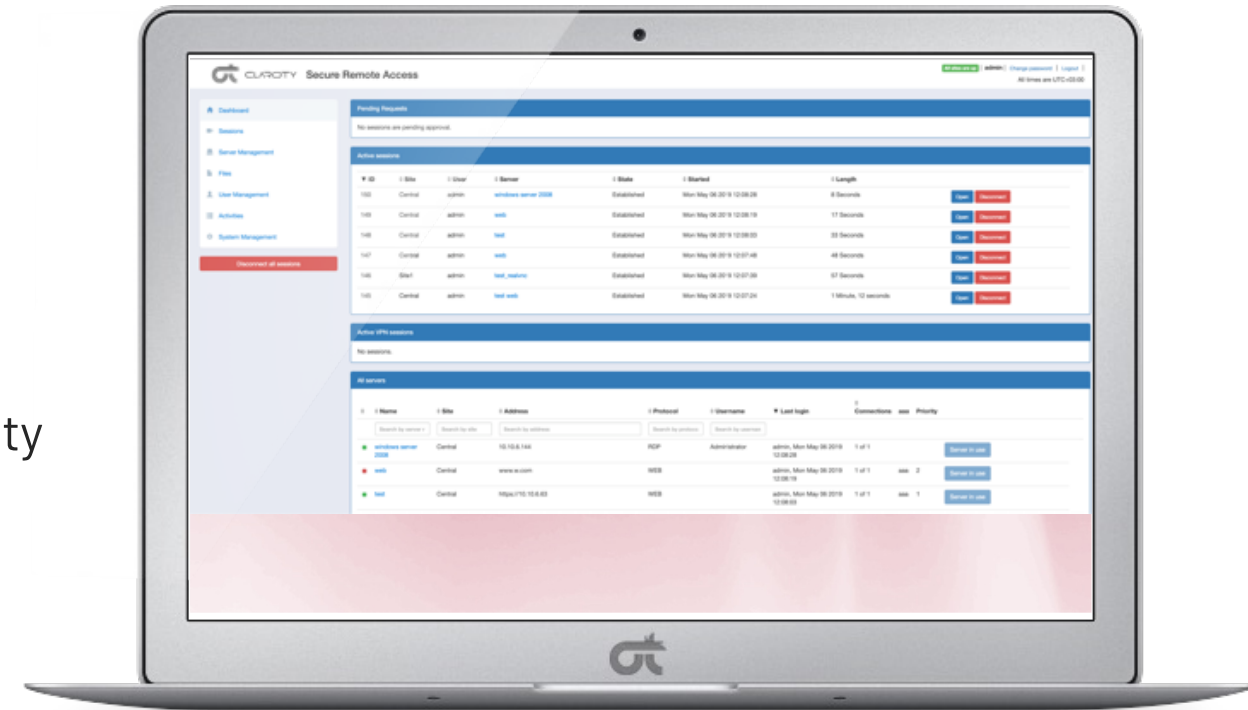


Secure Remote Access

Privileged Access Control

Take Back Control of Your Network

Define and enforce granular access permissions and policies leveraging a tightly controlled layered security (Purdue-model based) approach



Impact and Outcome

- Help eliminate a key cybersecurity threat vector by continuously monitoring and securing remote access for both insiders and third-party vendors



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Secure Remote Access

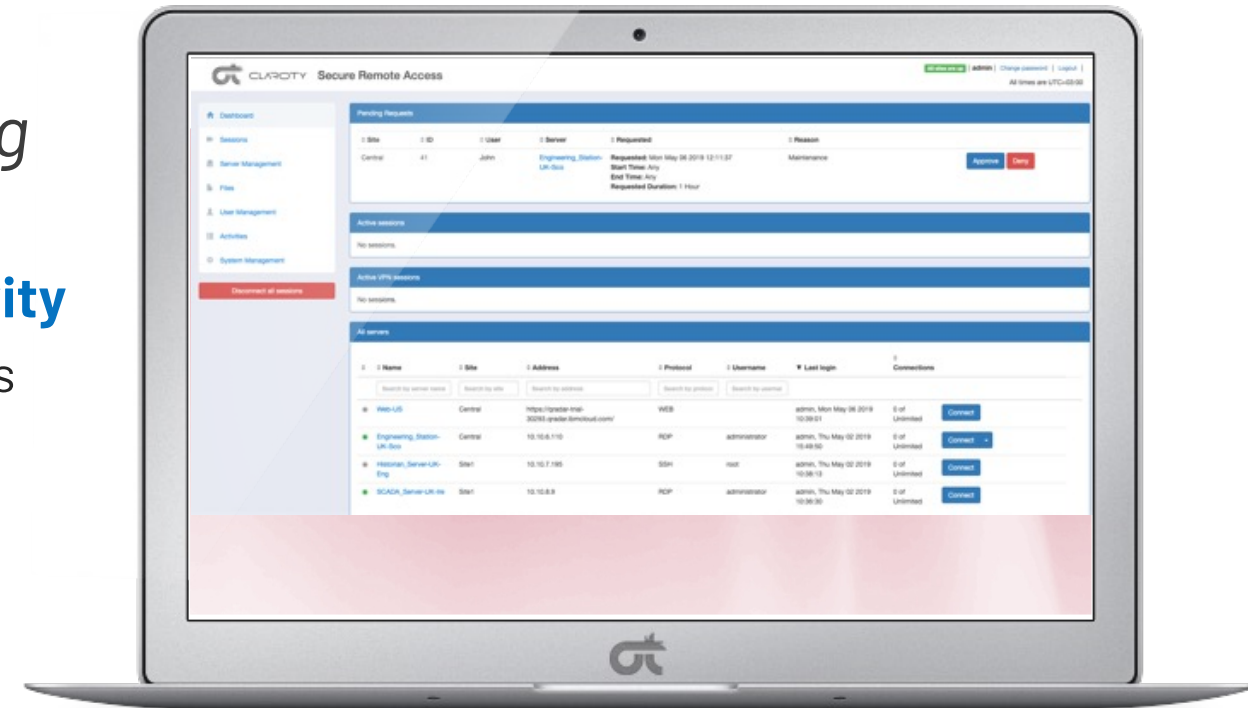
Active Management & Monitoring

Monitor and Control All Remote Access Activity

Capture, manage and authorize user access requests along with purpose, length and frequency

Observe active sessions with “Over The Shoulder” monitoring

Terminate session as needed



Impact and Outcome

- A seamless experience for users, enabling organizations to maintain their productivity while achieving tight access controls



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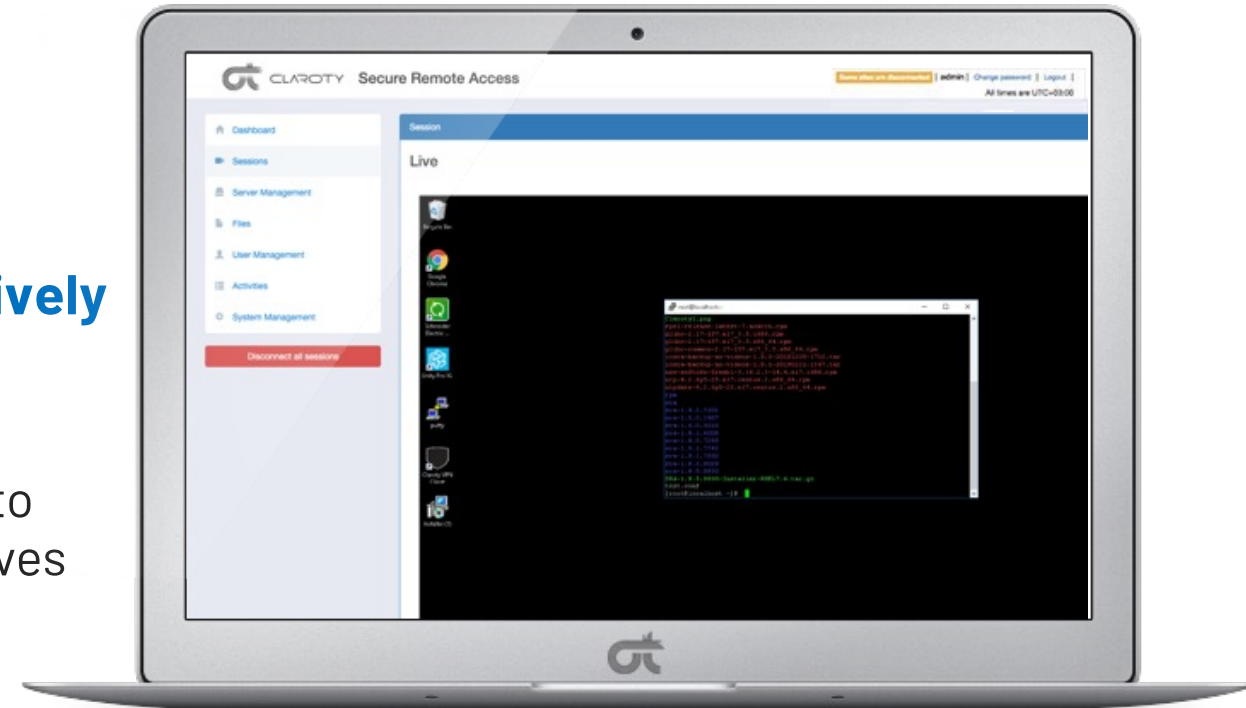


Secure Remote Access

Auditing and Forensics

Meet Auditing Requirements Reliably, Effectively and Easily

Automatically capture a detailed audit trail that documents all session activity and credential usage to facilitate auditing, compliance, and forensics initiatives



Impact and Outcome

- Satisfy internal and external auditing requirements with comprehensive audit trails and session forensics, including live “over the shoulder” and video-based session recordings



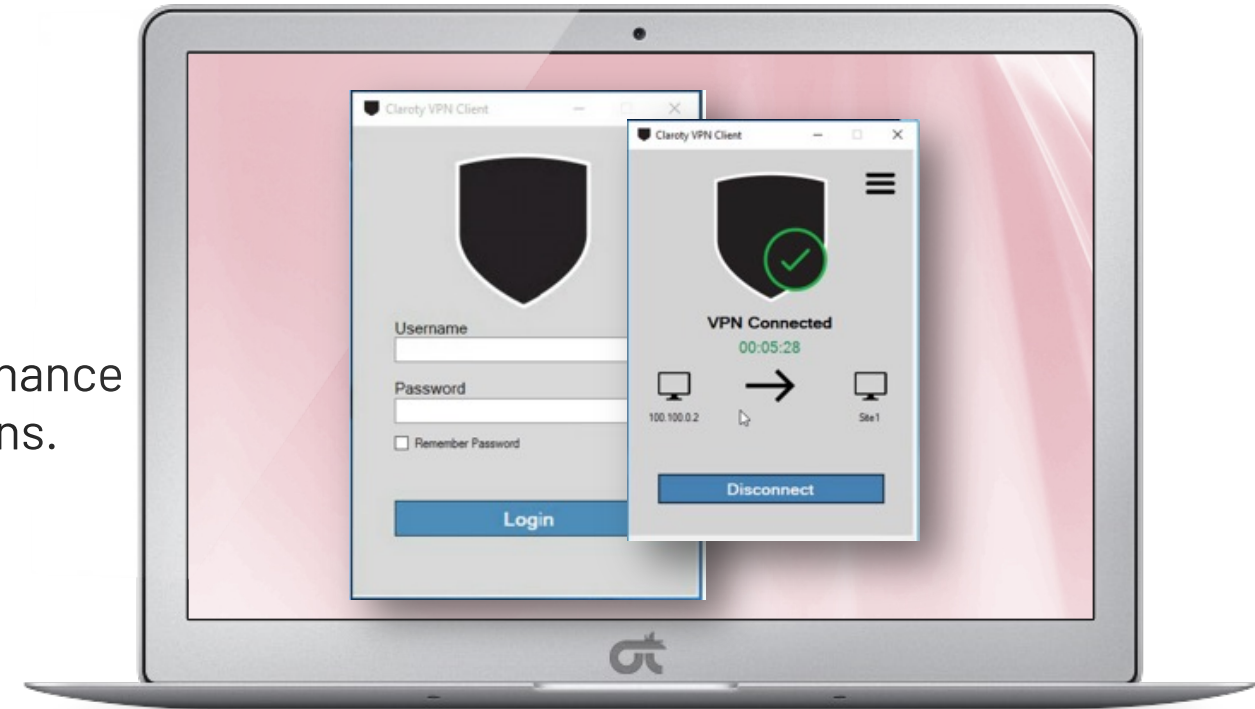


Secure Remote Access

Secure Application Tunnel

Secure Access via Local Applications

Manage and monitor remote diagnostics and maintenance operations conducted via locally-installed applications.



Impact and Outcome

- End-to-end remote access management and monitoring leveraging IT-centric security measures



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Comparisons



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Hardware Based Remote Access

	Rockwell Automation	Secomea	HMS/EWON	ProSoft	
Hardware	Ethernet Ports	10/100/1000 Gigabit Ethernet Ports, 2 or 5-port router	10/100 Fast Ethernet Ports, 2 or 4-port router	10/100 Fast Ethernet Ports, 2-port router	
	Digital I/O	2 Digital Input, 2 Digital Output	2 Digital Input, 2 Digital Output	2 Digital Input, 1 Digital Output	None
	VPN Access Ports	Ethernet ports, Serial port, and USB	Ethernet ports	Ethernet ports, Serial port	Ethernet ports
	Remote runtime (Optional)	Yes	Yes	None	None
Software	Device and user limits	Unlimited number of registered routers, support of end devices, and user accounts	Limited number of end devices supported per router, Unlimited number of user accounts	Unlimited number of registered routers, support of end devices, and user accounts	Unlimited number of registered routers, support of end devices, and user accounts
	Subscription Model	Limited by number of concurrent VPN connections and premium licensing for advanced features	Limited by number of routers and active number of user sessions	Limited by number of concurrent VPN connections and data bandwidth	Limited number of users per project, concurrent VPN connections, number of projects, and enhanced management capabilities
	SRA Application	Web-based	Installable software	Installable software	Web-based



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Hardware vs Software

Stratix / FactoryTalk SRA

Claroty SRA

OEM End User

High Level Overview

	OEM	End User
Secure Remote Connection	✓	✓
Access to Automation Sub-Network	✓	✓
Audits and Logging	✓	✓
Access Management	✓	✓
Digital Inputs/Outputs	✓	✗
Ties to Active Directory	✗	✓
Tracking of Actions Taken via Remote Session	✗	✓
Recording and Live Monitoring of Remote Sessions	✗	✓



Thank you for attending

TRC Tech Talks

Online Seminars