SOLUTION BRIEF

Claroty xDome Secure Access

Delivering Secure Access for Cyber-Physical Systems

Cyber-Physical Systems (CPS), such as process control networks and smart grids, are the core components of the highly complex and extensive world of manufacturing and other critical infrastructure sectors. As these systems become increasingly interconnected–simple, secure, and reliable access to operational networks has shifted from a convenience into a necessity. Accelerated by the results of adopting remote access technologies, this shift has better enabled organizations to optimize production, reduce travel costs, and manage operational issues for the wide variety of diverse stakeholders involved. Despite its benefits, increased connectivity is linked to the proliferation of cyber attacks in recent years–leading 25% of organizations to consider remote access and asset management to be the biggest gap in their OT cybersecurity program[1].

xDome Secure Access (SA) is a purpose-built remote access solution catered to meet the specific needs of the OT domain. It operationalizes the balance between frictionless access and secure control over third-party interactions with CPS–**enhancing productivity, reducing risk and administrative complexities,** and **ensuring compliance** across both cloud and on-premises operations.

Key Takeaways

- **Designed for CPS Operations:** xDome SA is built for the unique needs of both first and third-party users and the complex production environments in which they operate
- **CPS-Specific Security:** xDome SA protects against the increased risk of remote exploitation while preserving architectural best practices like the Purdue Model
- **Reduce Administrative Resources:** Alleviate the complexity of generating, provisioning, and maintaining identities with purpose-built, just-in-time credential management
- **Maintain Compliance:** Adhere to growing regulatory pressures and avoid noncompliance penalties with advanced logging and recording of access sessions

Why CPS Requires A Specialized Solution

Traditional access solutions like VPNs and jump servers have proven increasingly ineffective and inefficient for providing access to operational networks because they were not built for the unique operational constraints, security considerations, or personnel needs of their users.

With the continued convergence of IT and OT–the need for efficient, secure, and auditable network access–designed specifically for the operational environment–is apparent. A built-for-purpose CPS secure access solution combines the ability to provide privileged access management for a variety of operational tasks and seamlessly administer identity governance across a diverse user base. These, in combination with embracing the principles of Zero-Trust, enable organizations to offer granular access controls that support operational workflows while minimizing the attack surface in business critical environments.

Securing Operations with xDome Secure Access

xDome SA was built for the operational environment–providing security, control, and easy access to business critical assets regardless of location. This solution ensures a flexible and agentless deployment within a CPS-ready architecture that supports consistent operations in high-latency environments, with capabilities involving enhanced access control with Zero-Trust policy management, real-time monitoring and recording of access sessions, and comprehensive audit logs of session actions. Outcomes include:

Improved Productivity	Minimize Risk	Reduced Complexity	Maintain Compliance
Reduced Travel Expense	Narrow Attack Surface	Reduced Administrative Cost	Minimize Fines & Fees
Avoid Downtime	Improved Network Integrity	Extend Value of Existing Tools	Enhanced Audit Response
Improved MTTR	Proactive Incident Response	Enhanced Scalability	Improved Security Posture
Simplify Training Cycles	Eliminate Rogue Access	Improved Security Controls	Boost Operational Integrity

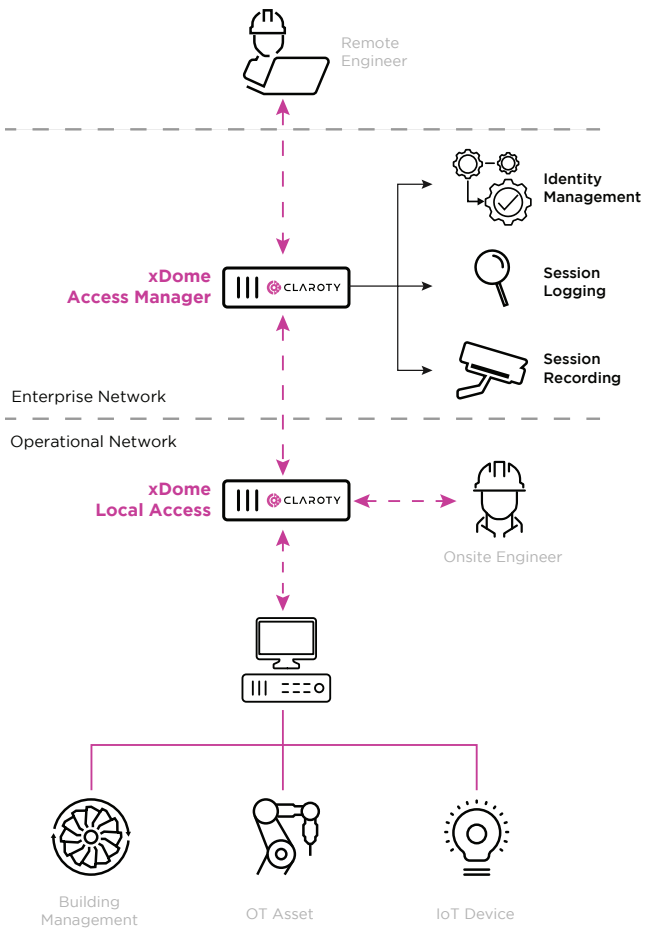
How It Works

xDome SA works by segmenting user access into multiple stages across our xDome Access Manager and xDome Local Access systems.

- **xDome Access Manager:** enables the user to connect securely to their enterprise network
- **xDome Local Access:** Rests in the operational network to communicate with assets and digitally represent their interface to the user.

These two systems communicate using encrypted tunnels across the IT/OT boundary, adhering to OT cybersecurity best practices and ensuring that remote users never have direct access to the process network while supporting their access needs. Sessions can be logged and recorded for incident response and future auditing.

xDome SA enhances productivity, reduces complexity and risk, and ensures compliance with regulatory frameworks across a variety of industries. Unlike traditional remote access solutions—most of which are designed solely for IT networks—xDome SA is purpose-built for the specific operational, administrative, and security needs of manufacturing and other critical infrastructure environments. Claroty xDome SA simplifies remote access to operational networks, reducing costs, saving resources, and enhancing security–freeing up personnel staff for core business initiatives and improving total cost of ownership (TCO). xDome SA's innovative approach reduces cyber risk exposure, bolsters business continuity, and protects critical CPS processes.



High-level example architecture of the xDome SA solution

About Claroty

Claroty empowers organizations to secure cyber-physical systems across industrial (OT), healthcare (IoMT), and enterprise (IoT) environments: the Extended Internet of Things (XIoT). The company's unified platform integrates with customers' existing infrastructure to provide a full range of controls for visibility, risk and vulnerability management, threat detection, and secure remote access.

Backed by the world's largest investment firms and industrial automation vendors, Claroty is deployed by hundreds of organizations at thousands of sites globally. The company is headquartered in New York City and has a presence in Europe, Asia-Pacific, and Latin America.

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