Zentera Empowers Siemens for Secure Access and Collaboration, Protecting Its Data and Applications







Worldwide Collaboration



Remote Terminal



Micro-Segmentation

Siemens has a broad set of customers worldwide and needed the right technology solution to support secure access, collaboration and protection for its comprehensive suite of product lifecycle management tools. Zentera helped Siemens achieve the business goals of flexible and agile collaboration, while satisfying stringent security requirements for IP protection, both for Siemens and for its customers.

The Challenge

Collaboration is the name of the game for product lifecycle management. Not only do many of design teams already operate on a global scale, the complexity of the products requires tight collaboration between the design team and its partners, suppliers, and customers to avoid costly errors and miscommunications. Siemens needed the ability to create secure compute environments to support critical business operations such as design services, customer trials, product training, benchmarking and demos, among other uses. Creating and maintaining a shared environment with the required level of security was extremely challenging due to the sensitive nature of the IP.

SIEMENS Siemens Digital Industries Software

Siemens Digital Industries Software, formerly Siemens PLM Software, takes what the future promises tomorrow and makes it real for customers today.

Mentor, a Siemens Business, enables companies to develop better electronic products faster and more cost-effectively. Mentor's innovative products and solutions help engineers conquer design challenges in the increasingly complex worlds of board and chip design.

INDUSTRY

Product Lifecycle Management

HEADQUARTERS

Plano, TX (Siemens DISW) Wilsonville, OR (Mentor)

ZENTERA PRODUCTS

CoIP® Access Platform Zentera Secure Access Zentera Cloud Access



Of primary importance was Intellectual Property (IP) protection, both for Siemens itself as well as its customers. The theft or loss of IP can severely damage a business due to loss of credibility and competitiveness, not to mention the possibility of fines for regulated data, Siemens needed a system with the necessary Data Loss Prevention (DLP) capabilities and safeguards to prevent changes to IT infrastructure from accidentally exposing IP to unnecessary risk.

Moreover, due to the global distribution of software development and customer support centers, Siemens needed a solution to manage the complexity and achieve scalability. They needed the flexibility and agility to be able to design, set up, run, evaluate and tear down an environment in hours, with minimal overhead for the IT team. The company also needed to be able to rapidly establish connectivity for its partners, with control over access credentials as well as the flow of data. Of course, delivering automation and agility could not in any way compromise security for Siemens' IP.



Siemens' first step was to deploy Zentera Cloud Access (ZCA) to create micro-segmented computing "chambers" within its datacenter for the purpose of hosting a collaboration. Each chamber is defined to match the business requirement, including a mix of Linux and Windows servers as well as shared network services. ZCA's overlay model enables Siemens to create chambers on-demand without modifying applications or any existing network infrastructure.

This "default block" security model allowed the company to select a set of whitelisted applications that should be allowed into, out of, or within each chamber. ZCA blocks and alerts admins when it detects network activity that doesn't match with the prescribed behavior, allowing Siemens to discover and remediate potential threats to their systems.



Key Objectives

- Secure sensitive intellectual property
- Connect globally distributed customers, suppliers and development teams and streamline operations
- Rapid response to support new business initiatives

The Solution

- Zentera Cloud Access for micro-segmentation "chambers"
- Zentera Secure Access for user access
- APIs to enable Segmentation as Code and Access as Code to achieve the goal of security by default

Business Benefits

- Rapid enablement of secure access, collaboration and operations involving employees, vendors, partners and customers
- Enhanced business agility and productivity
- Works with Siemens existing IT infrastructure without disruption





Establishing Access Controls

Having done that, the next step was to establish secure access for both internal and external users. Rather than use the corporate VPN, which could potentially expose other resources inside Siemens to external users, Siemens used Zentera Secure Access to create VPN-less access, authenticated by corporate directory services, that connects to specific resources on need and policy basis.

Access is locked from a secure RDP or VNC client running on an end user laptop, directly to specific landing servers in the chamber. The client has copy/paste disabled, and alternative clients are blocked. Coupled with the ZCA controls, ZSA gives Siemens complete control over how the access is granted.

Centralized Management at a Global Scale

With a global development team, partners, and customers, Siemens needed a solution that would scale. They chose to deploy CoIP ZNS virtual switches in multiple geographies, allowing them to optimize access to the target chamber or resource, minimizing latency and optimizing user experience.

While day-to-day operations can be handled with CoIP Access Platform's single pane of glass GUI, much of the work was automated by leveraging Zentera's comprehensive suite of APIs, turning setup and teardown of chambers into a completely repeatable task.

For monitoring, Siemens leveraged Zentera's simple integrations with tools such as Splunk, aggregating alerts and system status into their corporate reporting system.

that you need, and at the same time it gives you a level of agility that you just don't have today in a traditional infrastructure...we can turn things around, create projects, and complete those projects very fast.

Senior IT Manager Mentor, a Siemens Business



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Success Breeds Success

Having successfully deployed collaboration chambers in their on-premises datacenter environments, Siemens then replicated the chamber concept to cloud environments, such as AWS. In the cloud, the consistent operations, policies and controls provide additional layers of protection against misconfiguration and eliminate the need to expose any cloud server to the public Internet.

As Siemens has grown comfortable with CoIP Access Platform, they have continued to find new and innovative ways to leverage its capabilities and fully-integrated security; recently, CoIP Access Platform powered an extended worldwide remote beta test of Teamcenter and Active Workspace, which brought together participants from over 45 companies from around the globe.



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