Netwoven

Case Study : Semiconductor Services Supplier
Solution : Information Protection Management

The Challenge

Very few things carry so much significance for our modern digital lives as microchips. Integrated into all technologies we use daily; chips have become one of the most valuable Intellection Property (IP) assets on and off the battlefield.

US Senator Ben Sasse once said, “Modern wars are fought with semiconductors.” According to the CNBC Global CFO Council, statistics show that one in every five semiconductor companies in the US has been a victim of IP theft at the hands of foreign state-owned enterprises. The US Commission calculated that the impact of these malicious acts accounted for $600 Billion in losses to the U.S. economy every year. Equipment manufacturers and others in the semiconductor industry have struggled to balance increased product demands and the rising geopolitical security threats with data security.

Sensitive Information Protection Jumpstart Program →

Industry
Semiconductor Supplier

Country
USA

Product Used
Microsoft Information Protection

About
The customer is one of the world’s largest semiconductor equipment manufacturers and suppliers. They are a leading technology company with a global presence and every advanced chip today is built with the customer’s technology. They have been transforming atomic-scale engineering and driving semiconductor breakthroughs through innovation, technology, and expertise.

The Solution

Working along with Microsoft, we at Netwoven developed a solution for the customer that encrypts IP and prevents data from falling into the wrong hands. This can serve as a blueprint for the whole semiconductor equipment industry vertical! Our teams built a simple but powerful shield around IP using Microsoft 365 E5 and custom components, achieving:

- **100% data protection** for its critical Intellectual Property with Microsoft Information Protection (MIP)
- **100% protection of export-controlled content** from 'Trade Restricted Individuals' as specified by the US government
- **Automated provisioning** of secure sites with up-to-date access controls
- **Enabling third parties**, such as customers and suppliers, **to securely access sensitive**

Typical data repositories solely rely on access controls to protect sensitive content. These controls are not sufficient to prevent data exfiltration when documents leave the repository during collaboration workflows in complex supply chains. The customer wanted to enforce rights, track usage, and revoke access even when documents left the repository. The customer also wanted the highest level of protection across specified data repositories while maintaining ease of use for all employees.

The solution required addressing the following data repositories:

- Personal Hard Drives
- OneDrive
- SharePoint Online / On Prem
- File Systems
- CAD Repositories
- Email System
- Custom applications

Additionally, the solution had to be used by the customer's extensive global supply chain with a large base in Asia using Microsoft 365 or other cloud providers such as Google.

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Choosing Microsoft & Netwoven for innovation

The customer was already using the Microsoft 365 E3 stack, and it tasked Microsoft and Netwoven to provide an innovative Information Protection solution. A project of this scope was unprecedented at the enterprise level with this type of flexibility for all users. It required both Microsoft and Netwoven to stretch extensively in terms of creativity and execution.

The customer had a bold vision that required using existing Microsoft security products. However, it also needed extensive alignment with Microsoft's future security roadmap and the development of custom components for elements that were not on the roadmap or were too far out. To ensure success, multiple core teams, combined with an executive steering committee, helped execute an extensive Discovery and Planning phase to gather requirements. Below is a summary of the landscape:

# Internal Users	20,000+
# External Users	20,000+
# Repositories	15+
# Different File Types	80+
# Applications using Files	50+
# Existing DRM Solutions	2+
Total Content Size	1 PB+
MIP Usage Enhancement	Increased from 10% to 100%
Number of Devices	27,000

> The client has taken a comprehensive approach to protect sensitive information both inside and outside the organization while ensuring there was no impact on collaboration. Netwoven's extensive technical expertise and willingness to work with Microsoft's product engineering combined with their unique approach to designing solutions with a business-centric view allowed them to make the best use of Microsoft's offerings to meet the company's information protection needs.''

Enrique Saggese
Principal Program Manager
Microsoft

Netwoven then developed a framework and a release roadmap for the successful execution of the initiative, which required analysis on multiple dimensions:

- File Types
- Repository Types
- Data Lineage (New vs. Existing)
- Type of Control Required (Print, Copy, Screen Share, Watermark)
- User Population (Internal external)
- Type of classification (Manual, Automatic)
- Usage Reporting and Analysis
- Manual vs. Auto-labelling
- Perimeter Level Security vs. Classification Based Security
- Application Landscape
- Content Marking (Static and Dynamic)
- Semi-Annual vs. Monthly Enterprise Channel
- MIP Client (Built-in Client vs. UL Client)
- Device Compliance and Deployment

The customer was using other competing products as well. While these products had strong capabilities, the Microsoft E5 security stack was selected based on its roadmap, integration with Microsoft 365, and ubiquitous use of Microsoft products across the supply chain.

> “The level of change management for a project of this scope is enormous. The classification and security of data/IP requires working with all employees and a vast network of Customers, Suppliers, and Third Parties.”

Customer Project Team Lead

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Strengthening E5 with customization and value-add programs

Since January 2020, the journey has been long and challenging due to project complexity and COVID-19. There were many obstacles along the way, such as several critical defects, custom components for user adoption, missing roadmap features, and an extensive number of use cases that spanned across MIP, Azure AD, Microsoft Defender for Endpoint, DLP, and Microsoft Sentinel. The Netwoven team together with the customer and Microsoft worked through the challenges to implement the solution. The solution made MIP available to everyone and secured critical IP in repositories for all the customers engineering programs.

To address all the requirements, several customizations were added:

- Leveraged some components from Netwoven's existing product, Govern 365, listed on Microsoft AppSource for managing Trade Restricted Employees
- Automatic labeling of files when uploaded to a protected SharePoint Online site and shared with external users
- Provisioning dynamic template-based sensitivity labels dedicated to protecting content in a SharePoint Online site for its owners, members, and visitors
- Custom components to manage the content markings on files
- Ability to manage membership in groups referenced in label encryption to grant or revoke access to labeled files
- Ability to provide dynamic PDF watermarking with sensitivity labels

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The Benefits

Netwoven is especially proud of addressing the Adoption and Change Management Program requirements that involved more than 6 months of creating an internal site for all customer employees, containing a wealth of best practices and FAQs provided through videos and documents.

The customer awarded Netwoven with an Outstanding Achievement Award in recognition of creativity, technical expertise, technical leadership, and realization of the Information Protection initiative.

The solution offers 100% protection, easy adoption along with scalability and has applicability across many verticals that require IP protection. These include Semiconductors, Oil & Gas, Medical Devices, Automotive, Law Firms, and PE firms, to name a few.

Discover Sensitive Data: 2-Week Workshop →

Available on Microsoft AppSource

> We chose Netwoven and Microsoft to make our vision a reality. The Netwoven team provided technical expertise and an understanding of our business process knowledge essential to implementing a solution built to support our future growth and evolving security and compliance needs.''

Customer Project Team Lead

About Netwoven, Inc.

Netwoven is a leading professional services provider that enables Digital Transformation for businesses by leveraging the wide range of Microsoft products. We help organizations design and deploy comprehensive and cost-effective solutions for Collaboration, Analytics, Security, and Customer Relationships. We support our customers with their Digital journey using Microsoft's leading cloud platforms: Microsoft 365, Dynamics 365 and Azure.

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