Microsoft Transforms Their Supply Chain with Sustainability in Mind

Microsoft is committed to achieving several environmental goals by 2030, including becoming carbon negative, zero waste, and water positive. A key focus of this transformation is in its cloud supply chain, which supports more than 350 data centers worldwide.

Following the Covid-19 pandemic, Microsoft's cloud supply chain scaled quickly to meet increasing demand for cloud services. Despite the common perception of the cloud being software-driven, it requires large amounts of physical infrastructure, including server racks, cables, and other hardware. The supply chain must source raw materials from multi-tier suppliers, move them through regionalized contract manufacturing partners, and ultimately deliver these components to data centers around the globe.

With a rapidly growing global presence, Microsoft needed to optimize its multi-tier supply chain network not just for speed and cost, but also for carbon emissions to meet its sustainability goals.

Business Challenges

Before adopting advanced modeling tools, Microsoft faced significant challenges. Their cargo volumes were increasing by 40-60% year over year, resulting in a corresponding rise in scope 3 emissions from transportation. However, reliance on Excel spreadsheets and disparate data hindered theqir ability to make quick trade-off decisions across seemingly competing objectives: cost, carbon emissions, and cycle time.

Solutions

To tackle these challenges, Microsoft implemented Coupa Supply Chain Solutions, Powered by Llamasoft, to model its logistics network. Coupa's Integrated Scenario Planning capability allows Microsoft to explore how different strategies—such as freight consolidation, inventory positioning, and distribution center placement—impact key metrics.

With Coupa's capabilities, Microsoft has successfully reduced emissions by 60% from baseline levels for its outbound trucking network in North America, all while accelerating delivery times and lowering transportation costs.

Additionally, Microsoft has made strides toward its zero-waste target by leveraging Coupa to design a circular supply chain network for its reusable packaging. They were able to model reverse logistics flows to minimize carbon emissions and costs associated with transporting packaging materials that are returned to suppliers and recycled.

Conclusion

Microsoft's journey in optimizing its cloud supply chain for sustainability demonstrates the company's commitment to its environmental goals. Through the use of Integrated Scenario Planning capabilities from Coupa, Microsoft has not only improved supply chain efficiency but also significantly reduced its environmental impact. The company's efforts illustrate that sustainability and operational excellence can coexist, inspiring other organizations to follow suit in driving meaningful environmental change within their supply chains.
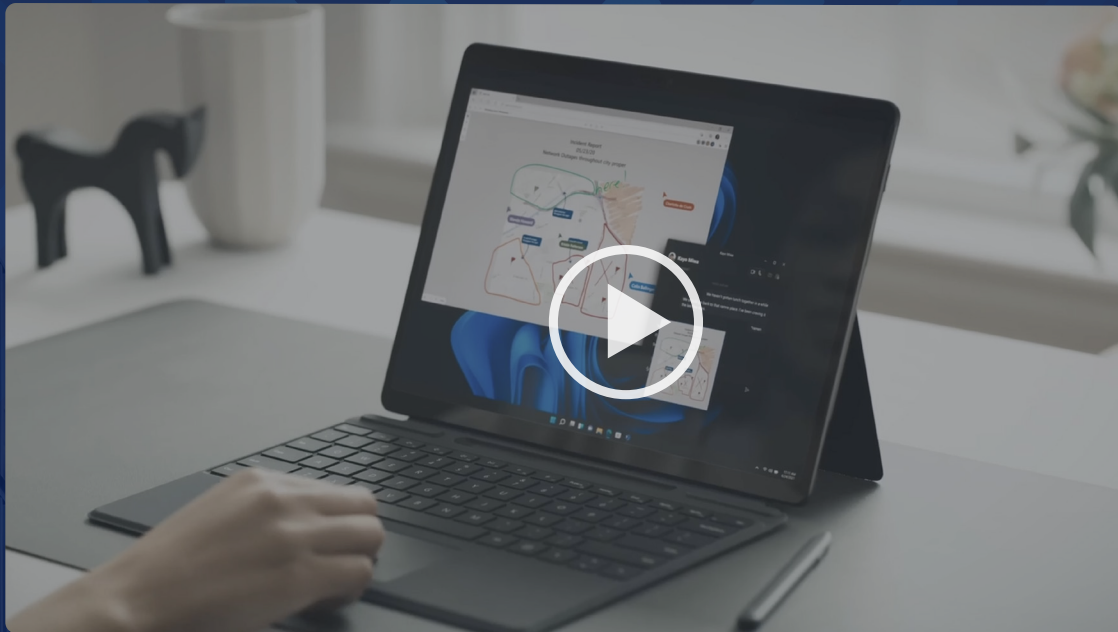
"You need to show how carbon, cycle time, and cost correlate with decisions that you can take. Then you go to leadership and can clearly say - these are the impacts of your decisions. That's where Coupa helps."

Marco Aipur,
Senior Director Cloud Logistics at Microsoft

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