Report generated: May 2025, PAIA Version 1.4.7
DS-C9148V-48PEVK9
Cisco MDS 9184V 64G FC switch, w/24 or 48 active ports +64G SW, exhaust

PAIA Environmental Impact Analysis

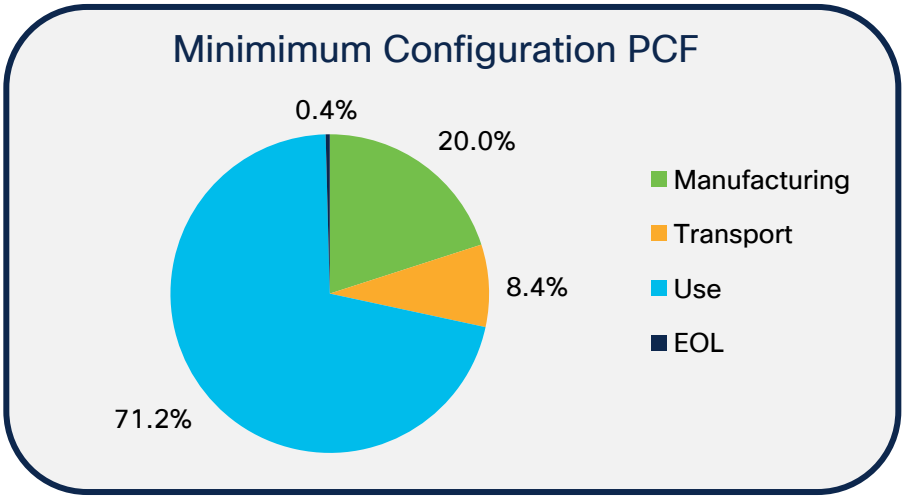
About this Analysis

Cisco uses PAIA (Product Attribute to Impact Algorithm) to conduct streamlined LCA exercises. PAIA was developed by MIT's Material Systems Laboratory to provide a streamlined approach to analyze the GWP of a product throughout its lifecycle. It focuses on key component attributes that are known to have a high environmental impact and is intended to estimate the range of carbon impact of a product class. The intended uses of these tools are to pinpoint the impact of hotspots and to understand the impact of certain reduction strategies on those hotspots.

Results

The following charts provide the numerical results from the PAIA tool reported as the mean. All estimates of environmental impact and/or carbon footprint are uncertain. This analysis calculated the product carbon footprint (PCF) for the switch utilizing a modeled minimum configuration and a modeled maximum configuration. The unit for global warming potential is in kg CO2-equivalent. The impact analysis results are quantified by running 10,000 trials in the model populated with key component attribute data. The model's system boundary was from cradle-to-grave. Please refer to the key product attributes in table 1 and table 2 for more information on data inputs for this analysis.

Modeled Minimum Configuration Mean Product Lifecycle Emissions =
2,877 +/- 2,106
kg CO2e



Note: The Product Attribute to Impact Algorithm model, Version 1.4.7, copyright by the ICT Benchmarking collaboration including the Massachusetts Institute of Technology's Materials Systems Laboratory and partners.

Modeled Maximum Configuration Mean Product Lifecycle Emissions = **3,641+/- 2,995** kg CO2e

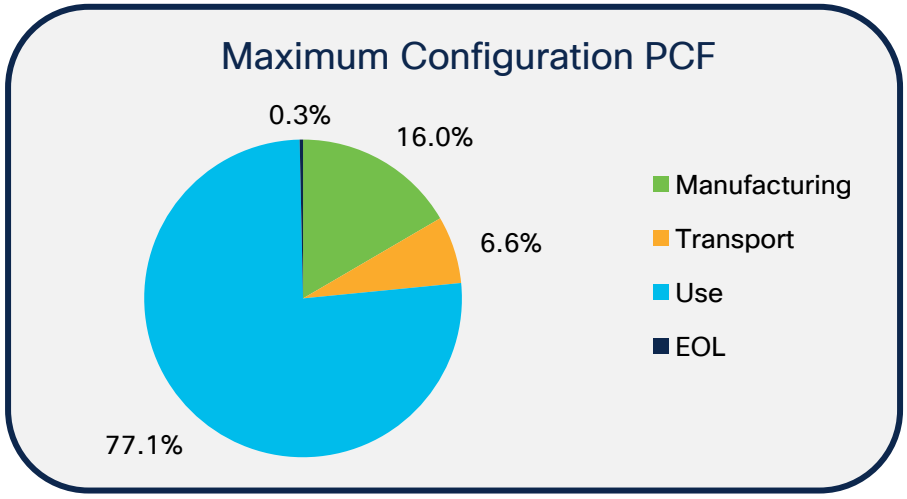


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Table 1: Modeled Minimum Configuration Key Product Attributes

Product Attribute	Input
Form Factor	Rack
Product Weight	9.9 kg
Number of CPUs	2
DRAM Total Capacity	16 GB
Location of Product Use	Europe
Lifetime of Product	5 years
Annual Typical Energy Consumption	1,795 kWh

Table 2: Modeled Maximum Configuration Key Product Attributes

Product Attribute	Input
Form Factor	Rack
Product Weight	9.9 kg
Number of CPUs	2
DRAM Total Capacity	16 GB
Location of Product Use	Europe
Lifetime of Product	5 years
Annual Typical Energy Consumption	2,505 kWh

Additional Information

The PAIA tools were not developed to support comparisons. It is difficult to draw meaningful conclusions when comparing two life cycle assessment results for two fundamental reasons. First, LCA results are strongly influenced by the assumptions made by the analyst; if those assumptions are inconsistent, comparisons are not likely meaningful. Secondly, LCA results have a high degree of inherent uncertainty, and that uncertainty would not be expected to be statistically independent across a set of alternatives being compared.

Disclaimer: Data and other information in this report are estimates and indicative only, based on assumptions and approximations, for particular products and points in time. They are neither predictions, commitments or guarantees of actual outcomes nor intended for purposes other than identifying opportunities to improve the environmental performance of products at various points in their lifecycle. Cisco continues to refine the methodology, modelling, and assumptions. Data and other information are therefore subject to change and uncertainties that are difficult to predict.

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Further information on Cisco's approach to Life Cycle Assessments (LCAs) is available at Cisco´s Purpose Reporting Hub, at https://www.cisco.com/c/m/en_us/about/csr/esg-hub.html.