



# PowerEdge R640

Report produced January, 2019

From design to end-of-life and everything in between, we work to improve the environmental impact of the products you purchase. As part of that process, we estimate the specific impacts throughout the lifecycle. This includes the contributions from materials, manufacturing, distribution, use and end-of-life management.



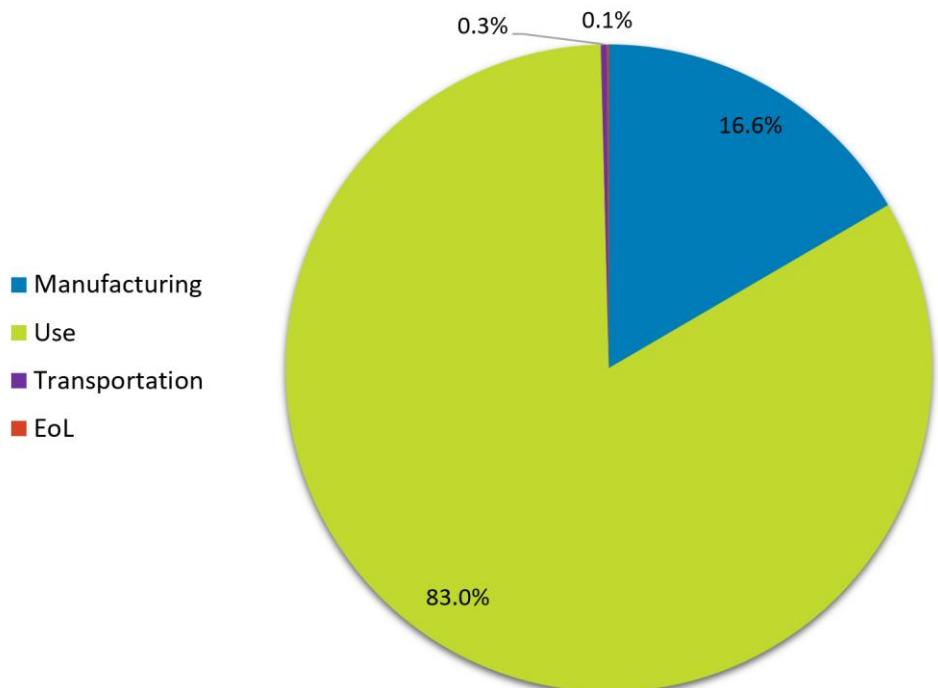
This product's estimated carbon footprint:

# 7730 kgCO<sub>2</sub>e \*

Estimated impact by lifecycle stage:

Dell uses PAIA (Product Attribute to Impact Algorithm) to perform product carbon footprints. PAIA is a streamlined LCA tool developed by [MIT's Materials System Laboratory](#). It takes into consideration important attributes of the product which can be correlated to activities in order to calculate the product carbon footprint.

Due to high configurability of servers, the information provided here was calculated based on the products highest selling configuration (see assumptions on page 2).

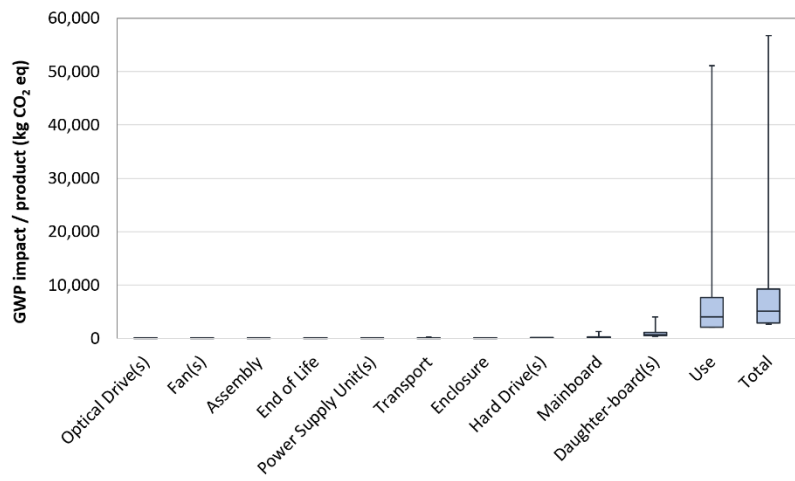




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\* This product has an estimated standard deviation of +/- 7900 kgCO2e

As part of our commitment to transparency, the chart to the right demonstrates the degree of uncertainty that exists within the PAIA model for product carbon footprinting, based on assumptions we have made for select variables.



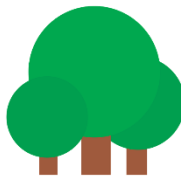
Assumptions for calculating product carbon footprint:

<b>Product Weight</b>	26.3 kg	<b>Server Type</b>	Rack	<b>Assembly Location</b>	EU
<b>Product Lifetime</b>	4 years	<b>Use Location</b>	EU	<b>Energy Demand (Yearly TEC)</b>	1760.3 kWh
<b>HDD/SSD Quantity</b>	x4 300GB 2.5" HDD	<b>DRAM Capacity</b>	32GB	<b>CPU Quantity</b>	2

# 7730 kgCO2e



**1 of these products...** has a footprint approx. equivalent to **driving 18,939 miles** in a passenger car.



**10 of these products...** have a footprint approx. equal to what **91 acres of US forests** can absorb in a year.



**100 of these products...** have a footprint about the same as the annual average carbon footprint of **155 people**.

To help our customers and other stakeholders contextualize product carbon footprint values, we provide these approximate equivalencies. Please remember these are estimates and should not be used for emission inventory or formal carbon footprinting exercises.

Calculations are based on the following methodologies: 2.45 miles driven per 1 kg co2e (source: [U.S. EPA](#)); approx. 850 kg co2e absorbed per acre of forests over a year (source: [U.S. EPA](#)); global personal carbon footprint estimated at 5 MTco2e per person (source: [World Bank](#)).