

Achieve Your Data Center Sustainability Goals

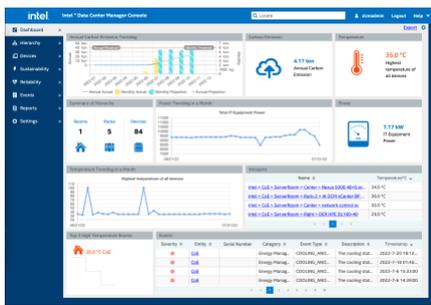
Intel® Data Center Manager 5.0 introduces new features to empower data centers to take control of their sustainability goals.

Data Center Sustainability

With the increased public awareness of today's environmental and climate risks and challenges, it is only sensible to take serious actions to make data centers greener, especially with data centers becoming denser, with multiple GPUs and other accelerators per server.

That is why new regulations for data centers continue to evolve - from strategies to improve efficiency to governmental mandates – making data center sustainability not just optional but essential.

Intel® DCM 5.0 introduces brand new features that aid data center managers and IT operators in achieving and improving their sustainability and efficiency objectives by monitoring, calculating, reporting, alerting, predicting, and controlling data center carbon emissions and footprint.



Intel® Data Center Manager Console Dashboard

Measuring Carbon Emissions

Intel® DCM collects the real-time power consumption of servers and other IT devices in data centers. When users input the carbon intensity of electricity in hours/days/months, Intel® DCM can use the power usage effectiveness (PUE) to measure the carbon emissions in real-time as shown in Figure 1. This can be calculated per data center, per room, per rack, or per node.

Intel® DCM can also calculate carbon emissions for logical groups that are set up.

Modeling Carbon Emissions

Intel® DCM can project carbon emissions and can trigger alerts based on user defined quotas. Additionally, Intel® DCM can use CPU/memory/IO utilization data to predict the power consumption and carbon emissions of a single node.

Controlling Carbon Emissions

Intel® DCM can identify underutilized servers so that they can be consolidated to reduce carbon emissions. Additionally, Intel® DCM can power cap servers to reduce their carbon emissions.

Carbon Intensity

The carbon intensity can be adjusted per hour (e.g., set 9:00AM to 4:00PM for carbon intensity of solar), and that can be copied to other months with one click.

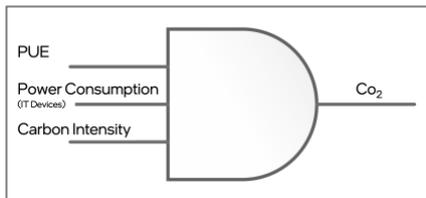


Figure 1. Formula for measuring carbon emissions

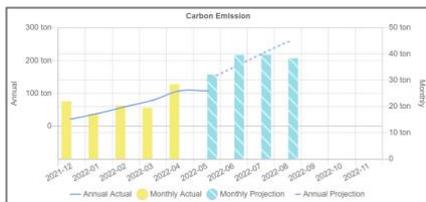


Figure 2. Intel® DCM Console Carbon Emissions Trend & Projection Chart

Data Center Manageability

Intel DCM 5.0 also provides a single pane of glass to aid data center managers and IT operators in achieving their manageability needs. This includes health and utilization monitoring, power and thermal management, asset inventory, firmware updating, and more.

Capacity planning & energy monitoring					
	Forecasting power & space needs	Optimizing rack densities	Granular thermal mapping	Device level energy monitoring	Power Capping
Utilization and health monitoring					
	System utilization monitoring	Identifying under-utilized servers	Real time detection of health issues	Predicting Cooling Anomalies	Reliable & customizable alerts
Infrastructures and asset manageability					
	Infrastructure right-sizing	Real time discovery and asset tracking	Remote system management	Server firmware updating	End-to-end data aggregation

Requirements

COMPONENTS	REQUIREMENTS
Operating system of management server	<ul style="list-style-type: none"> • Microsoft Windows Server 2012, 2012 R2, 2016, 2019, 2022 • Red Hat Enterprise Linux 7.9 and 8.5 Server x86_64 • SUSE Linux Enterprise Server 12 SP5 and 15 SP3 x86_64 • Ubuntu Server 18.04.6, 20.04.4, 22.04 x86_64 • CentOS 7.9 x86_64 • Debian 10.11, 11.2 x86_64
Hardware specifications of management server	<p>Minimum specifications for the system Intel® DCM is installed on:</p> <ul style="list-style-type: none"> • A dual-core processor of 2.6 GHz or higher • 8GB RAM • 80GB of hard drive space <p>Recommended specifications for a scaled environment (e.g., managing up to 20,000 nodes):</p> <ul style="list-style-type: none"> • 2 * Intel® Xeon® Gold 6348 CPU @2.60GHz • 64GB RAM • 800GB SSD • Gigabit Network

Where to get more information

For more information on Intel® Data Center Manager, visit

www.intel.com/dcm or contact dcmsales@intel.com

