ITAM FORUM

Implementing sustainable ITAM practices

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By incorporating environmental and sustainability criteria into IT Asset Management, Schneider Electric has demonstrated how companies can unlock additional potential to reduce greenhouse gas (GHG) emissions within its internal IT.

IT Asset Management —overseeing an organization's investment in IT, with its knowledge of the IT estate, usage, configurations and business value — has a pivotal role in delivering sustainable IT.

Environmental criteria has been gradually embedded into Schneider Electric's IT Asset Management practices (with a strong focus on standardization and circular economy enablement) to create a holistic approach to sustainability throughout the entire lifecycle of IT assets.

Schneider Electric's Carbon pledge for 2030 includes becoming carbon neutral in its operations through Scope 1 (direct GHG emissions) and Scope 2 (indirect GHG emissions) emission reductions and a 35% reduction in Scope 3 (other indirect GHG emissions) emissions.

In 2015, the International Telecommunication Union (ITU) estimated the carbon footprint of the Information Communication Technology (ICT) sector at approximately 740Mt CO_2, or approximately 3% of global carbon emissions. Electricity consumption of the ICT sector was estimated to be in the range of 969 TWh, or 3.9% of total electricity demand.[i]

However, the current global IT-related electricity demand is estimated to account for 1,900TWh, or 8% of total electricity demand with a potential to grow by 50% by 2030.[ii]

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Business devices, such as personal computers (PCs), account currently for more than 50% of the sector's CO_2 emissions and are therefore, central to significantly reducing the sector's carbon footprint through enterprise-wide IT initiatives.

Within Schneider Electric, a holistic, data-driven ITAM approach has been taken to quantify the carbon footprint and energy consumption reduction/avoidance of Schneider Electrics' PC fleet, monitoring each asset throughout its lifecycle.

Some of our results to date are as follows:

- Consolidating and adjusting the PC replacement lifecycle created a yearly weighted PC carbon footprint reduction of more than 15%.
- Shifting demand to standardized PC models has resulted in an estimated 1,000 tons of avoided CO_2/year.
- Setting ultra-small form factors as the default PC enclosure choice has resulted in further CO_2 avoidance of more than 1,500 tons per year.
- Giving preference to Responsible Recycling (R2) or e-Steward compliant IT Asset Disposition vendors, leasing services, donations, and an Employee Purchase Scheme provides a structured approach to creating a second life for retired PCs. Extending a PC's lifespan decreases the weighted yearly carbon footprint in the range of 50% through the amortization of embedded CO_2 emissions over extended time.

The experiences and conclusions from this journey inspired us to write, together with Lenovo (our main PC supplier) a white paper to share our methodology, experience and lesson learned with the IT management community.

The aim of our Implementing Sustainable IT Asset Management Practices for Enterprise-wide Carbon Reduction white paper is to encourage and help IT Managers to take a structured Green House Gas (GHG) protocol-aligned approach towards sustainability by leveraging IT asset management practices to manage business PCs and other IT hardware assets.

The data-driven approach proposed in this paper allows you to calculate the embodied and usage-related carbon footprint of an enterprise-level PC fleet in accordance with enterprise-wide GHG emission reduction efforts based on Science Based Targets. The highly-granular nature of the data enables companies to monitor trends and provides insight into carbon emissions caused by a company's fleet of business user devices and the impact of related measures already undertaken.

Embedding environmental and sustainability criteria into each stage of the IT asset life cycle acts as a structured, cost-effective approach to optimize a PC fleet's carbon footprint as part of the enterprise IT environment, and potentially, avoid high levels of GHG emissions.

Some of the good practices described in the white paper include:

- Harmonize and adjust the PC replacement lifecycle from a sustainability perspective. This may result in the decrease of yearly weighted PC Carbon Footprint in the range of 10-20%.
- Use standardization as a sustainability vehicle. It is well known that PC standardization positively influences cost efficiencies, simplifies maintenance and support, and reduces risk. However, it can also be used to stream demand toward devices with reduced carbon footprints and high-energy efficiency. This can therefore, contribute to significant carbon footprint avoidance.
- Include in PC selection criteria sustainability factors like repairability level, energy consumption and overall carbon footprint. PCs with similar performances may differ significantly in terms of energy consumption and device carbon footprint. Therefore, having PC Carbon Footprint as a selection criteria enables organizations to standardize models with a lower GHG emission footprint.

  PCs with a high repairability level are potentially less exposed to programmed obsolescence and usually have a longer PC lifespan. As a result, once retired from the company's PC fleet, devices with a high repairability level are much more likely to be refurbished and sold on a secondary market, respecting circular economy principles.
- Include environmental and sustainability factors as decision-making criteria for selecting IT suppliers, aligning your supply chain to your sustainability strategy.

  As a result, environment and sustainability requirement clauses shall become an integrated part of IT supplier contracts.
- Plan your procurement by considering factors that contribute to reducing logistics-related CO_2 emissions such as bulk purchases or the preference of sea freight instead of airfreight.
- Manage PC energy consumption settings in line with user profiles, making sure energy management drivers and tools are correctly deployed and configured.

- Re-allocate used PCs.
- Enable an Employee PC Purchasing scheme as a circular economy vehicle to ensure a second life to retired PCs.
- Enhance circular economy adoption through the donation of retired PCs to schools or non-governmental organizations.
- Define company-wide environment and sustainability requirements for IT Asset Disposition, ensuring they are met by selected IT Asset Disposition partners.

ITAM can play a significant role in driving down a company's PC fleet's carbon footprint, while contributing to an enterprise-level sustainability strategy. Similar approaches can be applied to other business devices. The proposed data-driven PC fleet carbon footprint reporting approach provides a transparent way to demonstrate achieved carbon footprint reductions and avoidances.

If you would like to learn more about how Schneider Electric incorporated environmental and sustainable criteria into ITAM and the results, please read the company's Implementing Sustainable IT Asset Management Practices for Enterprise-wide Carbon Reduction whitepaper.

[i] International Telecommunication Union – ITU-T L.1470 "Greenhouse gas emissions trajectories for the information and communication technology sector compatible with the UNFCCC Paris Agreement"

[ii] Schneider Electric Sustainability Research Institute – "Digital economy and climate impact – A bottom-up forecast of the IT sector energy consumption and carbon footprint to 2030" https://perspectives.se.com/research

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