Sustainable and Green IT Infrastructure Services
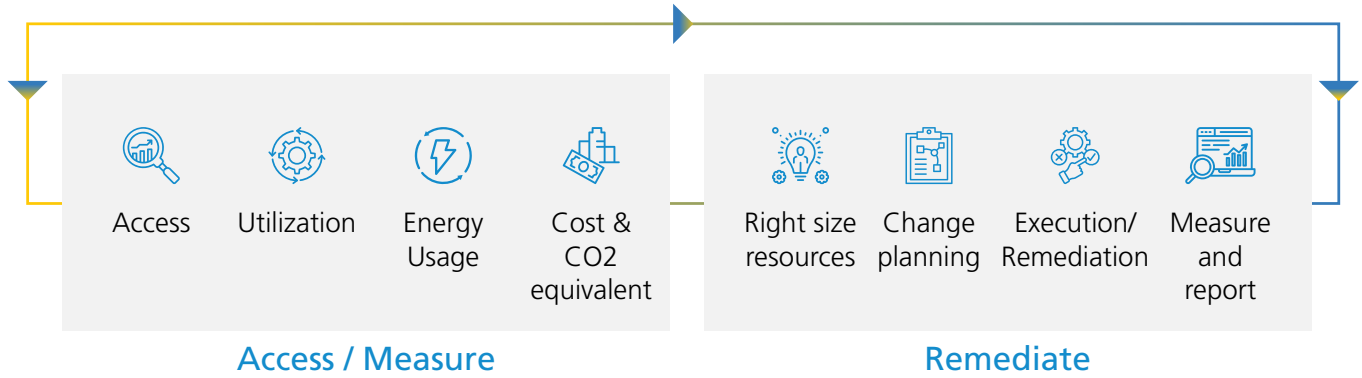
by LTIMindtree

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As ESG has become a mainstream business issue, the pressure on technology leaders to assume environmental responsibility is mounting. Sustainability is a core business element for organisations globally, including ours. Companies are committed to curb their carbon emission footprint and achieve a Net-Zero status. While technology remains the cornerstone for innovative sustainable solutions, it inadvertently also adds to the overall energy consumption associated with the IT landscape, leading to indirect emissions.

Technology leaders are tasked with shedding light on the environmental and social impact of IT and taking tangible steps toward a sustainable IT practice. IT teams, as business functions, are eager to contribute their part towards their enterprise's net zero goals. However, challenges such as accelerated compute requirements, overprovisioned IT infrastructure and lack of dynamic scaling hinder their progress.

LTIMindtree's approach to solving this problem is by identifying and optimizing the energy requirements of the IT environment without compromising application performance and user experience. We begin by baselining the current emissions of the IT landscape and generating actionable insights to support continuous improvement in reducing emissions. Our solution leverages deep IT and ESG capabilities, working in collaboration with carefully selected partner tools, to establish Sustainable IT Ops within the environment.

Access	Utilization	Energy Usage	Cost & CO2 equivalent	Right size resources	Change planning	Execution/ Remediation	Measure and report

Access / Measure   **Remediate**

LTIMindtree's Green IT Infra services revolve around the perspective that an energy-efficient IT landscape should have optimally provisioned hardware along with the capability to scale when needed. The figure above gives an overview of our thought process.

This is applicable to environments running both on-premises and in the cloud. In on-premises environments, customers may have their own data centers contributing to the Scope 1 & Scope 2 emissions. In the cloud, organizations consume as-is-services, which contribute to Scope 3 emission as per GHG standards. Companies may have targets to reduce emissions across all three scopes and align internal IT emission reduction with their organizational net-zero goals and vision.

LTIMindtree can assist organizations in baselining with the tools and services we provide, along with our partners, to help develop techniques and solutions for reducing emissions without impacting the consumption patterns and performance requirements of applications. As part of their Green IT initiatives, organizations have the opportunity to reduce both costs and carbon emissions and achieve their sustainability goals.

Case Study: 1

For a US electric service company, LTIMindtree enabled app-driven capacity management, reduced IT infrastructure footprint and proportionate carbon emission within a span of one year.

Business Challenge

› Needed dynamic capacity management to scale and provision in an agile manner

› Needed technical debt reduction, financial savings and modernization of IT operations
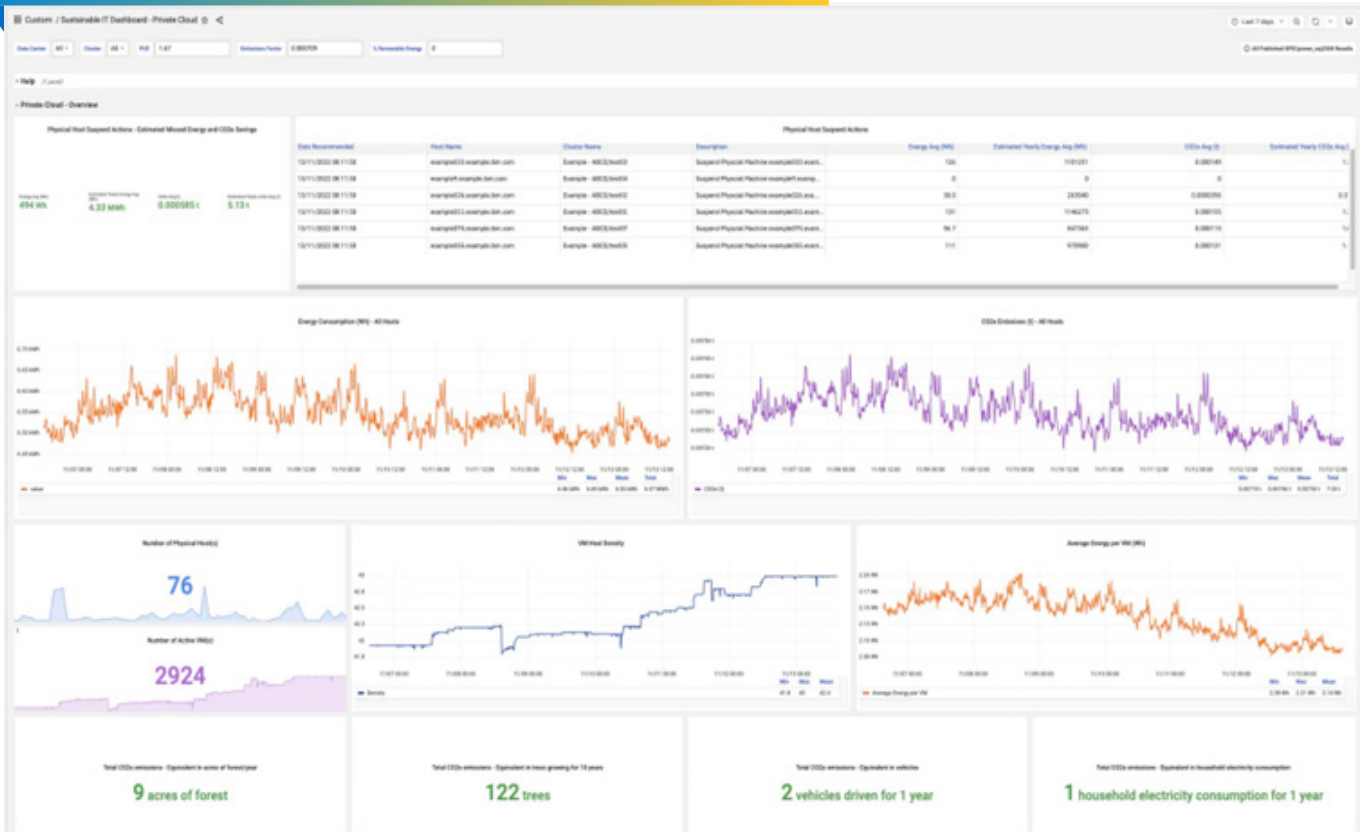
What LTIMindtree did

› Implemented the Green Ops solution and performed a baseline assessment to identify over-provisioned, under-provisioned and unutilized resources

› Executed recommendations from the AI-enabled tool to rightsize / optimize the environment based on application needs

Value Delivered

› Reduced the carbon footprint by proportionately reducing the infrastructure in the customer's environment

› Enabled an emissions dashboard within the on-premises environment setup

› Saved approximately 20 % on infrastructure spend through optimization/ consolidation of data center infrastructure across the IT infrastructure landscape in less than a year.

Sample dashboard from IBM Turbonomic for on-prem setup

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