



EkkoSim^{1.0}

MODEL | PREDICT | DEPLOY

Full end-to-end data center infrastructure modelling and simulation

Given the sheer pace of change, sometimes you just need some straight answers to your key data center questions including...

- How can I predict and maintain optimal performance across my full infrastructure?
- What equipment do I need to replace – and when?
- What spaces can I use for high-density loads such as AI?
- Where are my capacity bottlenecks for increasing IT loads?
- What would be my best cooling strategy?
- What impact could changing environmental conditions have on my estate?

Zero in on the right
decisions with accuracy
levels of 99% plus

That's where EkkoSim can help. EkkoSim is the only Digital Twin solution that provides comprehensive grey space modelling and simulation across your full, end-to-end data center infrastructure.



EkkoSim helps you zero in on the right decisions, enabling you to draw on first principles maths and physics models. You can then create the data center industry's most precise cooling, power and capacity simulations, with accuracy levels running at 99% plus.

EkkoSim extends beyond the white space to incorporate full site power and cooling distribution systems. This lets you carry out 'what-if' analysis, track the performance of your capital investments, simulate extensions to your existing capacity, or plan an entire new build!

So whether you're a CFO validating investments, a CIO seeking additional performance, or data center management wanting to optimise your facilities, EkkoSim can unlock the answers you need.

Unlimited simulation scenarios

EkkoSim allows multiple scenarios to be created, tested and analysed in the platform, such as: addition of new plant; increased IT loads; failover scenarios; reconfiguration of cooling systems, and viability of new power distribution systems.

The EkkoSim interface clearly displays the capacity for each unique asset class based on the provisioned (maximum) and utilised (existing) site loads. EkkoSim also integrates with the award-winning EkkoSoft Critical 3D platform, drawing on our 50 billion point data lake to provide live Actual vs. Expected performance data in order to review operation performance against OEM specifications.

Key EkkoSim benefits

- Reduce capital investments**
 By accurately analysing and predicting the most suitable designs
- Analyse the performance of critical capital purchases**
 By triaging assets that would most benefit from configuration assessments
- Decrease operating expenses**
 By continually analysing metered data against predictive models
- Track Total Cost of Ownership (TCO)**
 Calculate data center equipment and power TCO

Quick and Advanced scenario generation

EkkoSim offers a broad range of additional simulation options, including:

- Quick Simulations**
 Using Quick SIM to make changes to the IT load, adjust the number of assets or test site performance under different external conditions
- Graphical Analysis**
 EkkoSim can run these for periods up to three years, with KPI analysis including energy usage, seasonal PUE, CO2 emissions, costs and capacity
- Configuration**
 Created for electrical and mechanical systems based on performance design data from manufacturers
- Alternative Cooling Configurations**
 Simulating cooling configurations such as chilled water, split DX units, air-cooled chillers, liquid cooling IT racks, and air economizers
- Resilience Testing**
 Supporting N+R and 2N+R resilience testing for both shared or staged loading, with power and cooling distribution circuits able to split and combine to simulate performance under failure scenarios

Request a free demonstration and bring the power of award winning EkkoSense AI to your critical facilities



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