

OCP Engineering Workshop 25 September 2017 | Dallas, TX

OCP Engineering Workshop – 25 September 2015 – Dallas, TX

Site Analysis Tool

Romonet

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ROMONET

Romonet – Site Analysis Tool

The screenshot displays the Romonet website interface. At the top left is the ROMONET logo. The navigation menu includes 'ABOUT SAT', 'GLOBAL SITE ANALYSIS TOOL', 'TECHNICAL DATA', and 'CONTACT'. The main content area features a world map with numerous orange location pins. On the left side of the map, there are two orange buttons: 'Reset Map' and 'Undo Zoom'. A vertical orange button labeled 'feedback' is positioned to the left of the map. The map shows pins concentrated in North America, Europe, and a few in Asia. The map includes labels for various countries and oceans. At the bottom left is the Google logo, and at the bottom right is the text 'Map data ©2017 Terms of Use'.

Site Analysis Tool – Analysis Options

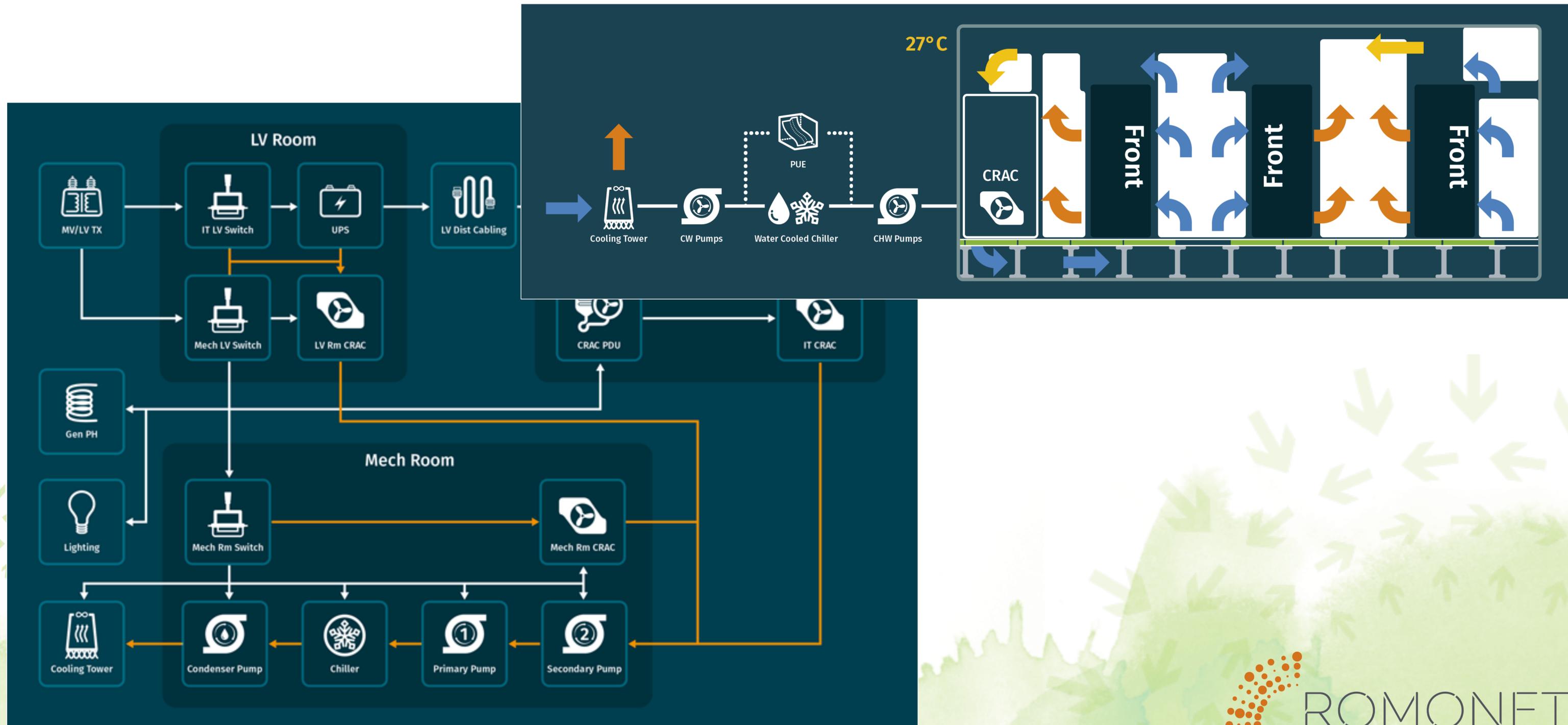
- **Data center** - view how an archetype performs across all locations
- **Location** - view how all archetypes perform in a specific location
- **Compare Locations** - compare performance in up to five locations

Use column sort to find trade-offs

Site Analysis Tool – Analysis Output

- **PUE** – annual average PUE at % load
- **Annual Energy Cost** – based on % load
- **Total Annual Energy** – annual energy consumption GWh
- **CO₂e** – total annual CO₂e emissions
- **Utility Cost** – average grid energy per location \$/kWh
- **PUE Surface Plot** – PUE under all load's/OAT's

Site Analysis Tool – Predictive Models



Site Analysis Tool – Predictive Model

- **1MW** – all models are sized to 1MW IT capacity
- **TMY Simulation** – fully TMY location data used for simulation
- **2N/N+1** – electrical / mechanical resilience (Tier 3)
- **ASHRAE R** – target supply temperature
- **Single Hall** – non or partially contained hot/cold aisle

Over 1964 years of hourly simulation data!

Site Analysis Tool – Additions

- **OCP** – an OCP ‘style’ model based on OCP data center ‘spec’
- **H₂O** – annual water consumption as an output
- **New Locations** – Asia / South America / Canada
- **CO₂e** – total Annual CO₂e emissions
- **Utility Cost** – average grid energy per location \$/kWh

Free for anyone to use!



SITE ANALYSIS TOOL

BY

ROMONET





OPEN

Compute Project

