

CASE STUDY

Orange S.A., France



*Pre-cooling System **Smart Cooling™** on Orange S.A. data center, Paris cooling Equipment, reduced electric energy consumption by 17% and increased cooling capacity by 21% on average.*



SHAKED, TESTED AND PROVEN.

Efficacy results were tested, analyzed and validated. Tests were performed using **BTU** liquid flow and temperature meter **RIF600** and energy monitoring equipment **Eniscope** analytics.

CUSTOMER

Orange is one of the world's leading telecommunications operators with sales of 40,9 billion euros in 2016 and 152,000 employees worldwide at 30 September 2017, including 93,000 employees in France. Present in 29 countries, the Group has a total customer base of 269 million customers worldwide at 30 September 2017, including 208 million mobile customers and 19 million fixed broadband customers. Orange is also a leading provider of global IT and telecommunication services to multinational companies, under the brand Orange Business Services.

CHALLENGE

Summers in Paris are very similar to those in London. From June to September, the average temperatures are minimum 13°C and maximum 25°C. Sometimes it can get up to 45°C, but rarely. However, the heat in this city is humid and it can be oppressive to wander the streets of Paris during the hottest days. To improve the effectiveness of chillers COP and ensure the safety of additional chillers in the hot summer season - Orange S.A. starts equipping chillers with **Smart Cooling™** adiabatic cooling system PRO 10.

SOLUTION

With a total cooling capacity of 1200 kW, the facility has been equipped with TRANE RTAC 375 chillers, which began providing energy efficiency improvements to Orange S.A. data center in Paris - France. Our solution will boost Orange S.A. data center equipment efficiency. That means more cooling power ensured and minimized electric energy consumption.

Smart Cooling™ continues to equip new chillers with the new generation adiabatic pre-cooling chiller booster system PRO 10 complete with condenser protection membranes.

RESULTS

Orange S.A. after the installation of **Smart Cooling™** Adiabatic pre-cooling system, cooling equipment can produce noticeably more cooling capacity (the average increase by 21%) and the electrical energy consumption of equipment considerably decreases (by 17% on average). Additionally, cooling equipment operates under the circumstances of normal load, the operating cycle of compressors is shorter and the equipment does not become overloaded.



COOLING CAPACITY INCREASED BY

↑ 21%



ELECTRICITY CONSUMPTION REDUCED BY

↓ 17%

ROI
14
MONTHS

The intelligent adiabatic **Smart Cooling™** system is a proven, state-of-the-art cost-saving pre-cooling technology.

- Modular system
- Suitable for all types of dry coolers and chillers
- Easy and fast installation
- Certified system and approved by major cooling equipment manufactures
- Minimal maintenance

