Cool-safe© Advanced Thermal Design
Why Cool-safe© Advanced Thermal Design?

Share of energy costs will further rise

Power and Cooling challenges

- Global perspective
  - All 33 million servers worldwide consume 1.5% of the globally produced energy
  - Green house gas emissions equal those of i.e. the Netherlands or Argentina

- Company perspective
  - Share of energy costs on total IT costs
    - Now: 20%
    - Future: 50%

Gartner „Energy costs will make up 50% of IT costs in the near future“

Energy costs are or will become an important topic for every business
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At a glance

- Extended temperature range of
  - 5 °Celsius / 41 °Fahrenheit to
  - 40 °Celsius / 104 °Fahrenheit

- Impact on system
  - Very few limitations (e.g. choice of CPU, no tape support)
  - No restriction on operation time

- Released for
  - Fujitsu PRIMERGY RX300 S8, RX200 S8, RX100 S8, RX2520 M1
  - Further system on project request
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Business Benefits

- Up to 27% saving on energy costs for cooling
- Reduced infrastructure costs for new data centers
- ‘Chiller-less’ data center
- System availability guarantee, even under extreme conditions – without any operating time limitation
  - Warm environment of up to 40 ° Celsius
  - Fresh-air DC cooling (no air conditioning)
  - Extreme weather conditioning (particular for container solutions)

Cool-safe© Advanced Thermal Design enables saving on cooling costs of up 27 %, while ensuring system availability - even under extreme conditions.

* Fujitsu estimation: 1°F higher temperature reward in 3% savings in cooling costs
Project example: Internet Initiative Japan

- **Requirement**
  - 30 °C environment DC (container)
  - Power saving for cooling unit in DC able to take free cooling.
  - Low power consumption system also required.

- **Approach**
  - Offer RX200 S6 with special SDR
  - FAN control setting was optimized for IIJ’s required operating temperature
  - Around 15% power saving for general RX200 S6 under 30 °C

- Project volume: 3,000 units in FY 2010/2011
What about other infrastructure components?

- ETERNUS DX
- IP switch
- Power & UPS

Storage
Switches

Released for 5-40 ° Celsius operation