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HITACHI DELIVERS HIGH EFFICIENCY MODULAR COOLING SOLUTION AT TELEHOUSE IN LONDON

LONDON, 21 OCTOBER 2010 – Hitachi Europe Ltd. has today completed delivery of its Refrigerant Natural Circulation (NC) Cooling system as part of its Modular High Density Cooling Solution for TELEHOUSE'S recently opened facility TELEHOUSE LONDON Docklands West, in London, UK.

Since the CRC Energy Efficiency Scheme (also known as the Carbon Reduction Commitment) was introduced in April 2010, UK companies are being encouraged to actively reduce their CO2 emissions. Responding to the scheme, TELEHOUSE has optimised efficient electricity utilisation across its Data Centres, proven by its recent certification to the Carbon Trust Standard. As part of TELEHOUSE's ongoing commitment to reducing its environmental impact the company implemented a much appraised waste heat export strategy within TELEHOUSE LONDON Docklands West, which sees TELEHOUSE help UK businesses achieve their green commitments. The deployment of Hitachi's Modular High Density Cooling Solutions within TELEHOUSE's Data Centres constitutes the natural next step to this commitment.

Hitachi delivered the solution comprising of Hitachi's NC Rear Doors as main cooling units plus NC Racks as redundant units. No traditional CRAC units were installed, as the IT racks are cooled by NC units only. This solution will considerably decrease power consumption in comparison to traditional water-based cooling systems. Power consumption for the delivered NC solution (11 NC Doors and 4 NC Racks) is approximately 5.65kW while cooling a capacity of 110kW. The NC Racks are only necessary for redundancy and without these the solution continues to deliver the required cooling and yet consumes only 2.53kW (230W per NC Door and 780W per NC Rack). These significant power efficiencies continue across varying IT loads while maintaining environmental conditions. The net result is the carbon footprint and energy bill for TELEHOUSE has significantly been reduced for this high-density offering. The existing facility provides cooling capacities between 3-6kW per rack, whereas with the Hitachi solution as much as 10kW per rack is now achievable.

The installation at TELEHOUSE resides within an IT cage ($7.8\text{m} \times 3.6\text{m} = 28\text{m}^2$) and includes the following:

- 11 IT Racks each attached with an NC Rear Doors (10kW Cooling Capacity per unit)
- 4 NC Racks (22kW Cooling Capacity per unit)
- 4 Shell & Tube Heat Exchangers (2 x 60kW capacity, 2 x 44kW capacity)
- Piping and Three-port regulating valves on the chilled water side for managing refrigerant temperatures

Features of units:

- No pumps or compressors thereby reducing power consumption levels
- Automatic and manual settings for variable speed fans and regulating refrigerant valve for managing different IT capacities/heat loads
- The NC Doors and NC Racks are piped and cooled via an external chiller system providing chilled water to requisite heat exchangers.

Tokuji Mitsui, Managing Director at TELEHOUSE said, "As a global company with an extensive customer base in Asia, the US, Africa and Europe, we take pride in offering dependable data centres which are at the forefront of issues driving the IT sector. Our customers have increasing requirements for high density areas with a small energy impact and we found Hitachi's solution to be the best fit for this purpose. "

Bob Harris, Technical Director at TELEHOUSE said: "For our new data centre facility in the Docklands, we were looking for a solution to fit our strict set of requirements – scalable, reliable technology with a small footprint, which at the same time delivers against our high requirements for power efficiency (which is independently validated by a recognised industry body). The Hitachi offering ticked all the boxes. While we have only just finished the installation, we are extremely pleased that the space occupied by this solution is already in high demand with our customers."

Akira Shimizu, Managing Director at Hitachi Europe said: "Working with TELEHOUSE, the Eco Data Centre team here at Hitachi could prove that we deliver on the promises of our company credo: contributing to society through technology. Our Eco Data Centre solutions are part of what we call Social Innovation Business, for which we are using synergies within the company to provide technology to help lessen impact on the environment. At the same time, it is important to us that our customers, like TELEHOUSE, see a direct effect on their bottom line in terms of energy and cost savings."

Ian Blond, Senior Manager of Data Centre Group said;"We are excited that we have addressed TELEHOUSE's requirements and provided a solution that delivers significant power savings for varying IT

loads while occupying a small footprint. We proved that this solution fits nicely within an existing facility and that the installation has little to no impact on existing operations during fit-out. Hitachi looks forward to TELEHOUSE reaping the benefits from this solution...their success is our success.”

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▪ **Inquiries**

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About Hitachi, Ltd.

Hitachi, Ltd., (NYSE: HIT / TSE: 6501), headquartered in Tokyo, Japan, is a leading global electronics company with approximately 360,000 employees worldwide. Fiscal 2009 (ended March 31, 2010) consolidated revenues totaled 8,968 billion yen (\$96.4 billion). Hitachi will focus more than ever on the Social Innovation Business, which includes information and telecommunication systems, power systems, environmental, industrial and transportation systems, and social and urban systems, as well as the sophisticated materials and key devices that support them. For more information on Hitachi, please visit the company's website at <http://www.hitachi.com>.

About Hitachi Europe Ltd.

Hitachi Europe Ltd., is a wholly owned subsidiary of Hitachi, Ltd., Japan. Headquartered in Maidenhead, UK, it has operations in 11 countries across Europe, the Middle East and Africa and employs approximately 460 people.

Hitachi Europe comprises of nine business areas: air conditioning and refrigeration systems; digital media and consumer products; display products; industrial components and equipment; manufacturing systems; information systems; power and industrial systems; power devices and procurement and sourcing. Hitachi Europe also has three Research and Development laboratories and a Design Centre. For more information about the company, please visit <http://www.hitachi.eu>.

About TELEHOUSE

TELEHOUSE offers data centre facilities and connectivity, providing a secure and resilient platform for mission critical IT systems. Established in 1988, TELEHOUSE became Europe's first purpose-built neutral colocation provider. Today, the company is at the heart of the Internet and telecommunications infrastructure, serving over 1,000 major customers worldwide, from small start-ups to multinationals across a wide range of industries. It is a subsidiary of Japanese corporation KDDI, a Global 300 company and is able to offer a global network covering Europe, America and Asia/Pacific.