

Data Center Readiness Assessment for Rear Door Heat eXchanger

Eliminate Data Center Hot Spots with Energy Efficient Cooling



Offering Highlights

IBM will perform an on-site data center assessment for evaluating the installation of a Rear Door Heat eXchanger (RDHX) solution. This service may include the following:

- **Examines the client's server layout for those racks that will implement the rear door heat exchanger**
- **Develops a 3D layout of the racks, RDHX units, cooling distribution unit, and under-floor chilled water piping and hoses**
- **Outlines the time-line and steps to install and bring the RDHX solution online**
- **Coordinates procurement and installation of all hardware from the cooling distribution unit to the RDHX units**
- **Oversees bringing the RDHX solution online and verify its operation**
- **Attractively priced**

Increasing Stress on Infrastructure

In the last five years the performance of servers and storage has increased exponentially. Along with this performance growth has come a significant increase in the power dissipated by the server and storage hardware. This has caused a significant strain on the infrastructure of data centers that were built for hardware power levels much less than what is required today. The higher rack power levels have caused customers to spread out their server products in order to cool them in the current facilities, using up valuable and expensive raised floor space. IBM anticipated this trend and developed a simple, cost effective, easily installable solution that can save on valuable floor space, reduce the heat load to the data center environment and eliminate hot spots within the data center. The IBM Rear Door Heat eXchanger mounted to the racks provides this solution.

Realizing the Vision

A first step in deploying high powered servers is to evaluate the server layout in the data center to determine if there are thermal issues. If hot spots are evident, then the IBM Rear Door Heat eXchanger can provide a cost effective solution.

IBM also offers services for thermal analysis of the data center to provide customers a better understanding of their existing facility and an optional view into the future, showing potential hot spots and how the RDHX can solve these issues.

Offering Description and Value

This offering provides a straightforward, cost effective, energy efficient solution to solve hot spot problems within the data center. The approach is to identify the need, determine the feasibility and then establish a plan of attack to implementing an RDHX solution.

The Project

As a result of an on-site data center assessment, the feasibility of an IBM Rear Door Heat eXchanger installation will be determined. Upon affirmative determination, the next steps would include the evaluation of the specified equipment racks targeted for RDHX's, review of the equipment layout to determine if there are any obstacles to overcome and then provide guidance and direction on the actual implementation of the RDHX solution..

Typical Project Tasks

- 1. On-site review of the building / data center mechanical system*
- 2. On-site review of the data center equipment layout and RDHX targeted racks*
- 3. On-site of the thermal loads of the RDHX targeted racks*
- 4. Provide guidance and direction on the implementation plan for the RDHX solution.*

Who We Are

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For More Information

To find out more about the IBM Data Center Readiness Assessment for the Rear Door Heat eXchanger and it's recommended companion, Data Center Thermal Management & Analysis Utilizing Mobile Measurement Technology (MMT), contact IBM STG Lab Services at datacntr@us.ibm.com.



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