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## **Private Cloud Solutions**

### **Aspen House Fleet Data Centre (AHF) and the EU code of conduct for energy-efficient datacentres**

These are the areas in which the Aspen House Fleet Data Centre (AHF) comply with the recommendations of EU code of conduct for energy-efficient datacentres.

#### **Air Quality**

Mitsubishi Lossnay units extract stale air and then recover the heating or cooling energy to either warm or cool incoming fresh air and also filter it.

HiCoP (high co-efficient of performance) Mitsubishi background cooling with seasonal free cooling.

CRAC units filter the supply air to the cold aisle to ensure that critical equipment is not damaged by particulates or corrosive elements which might impact both IT equipment and cooling equipment in terms of performance, energy efficiency and reliability.

#### **Air Flow Management and Design**

We have highly efficient cold aisle containment.

As the power densities and air flow volumes of IT equipment have increased it has become necessary to ensure that equipment shares an air flow direction, within the rack, in adjacent racks and across aisles.

The hot / cold aisle concept aligns equipment air flow to create aisles between racks that are fed cold air from which all of the equipment draws intake air in conjunction with hot aisles with no cold air feed to which all equipment exhausts air.

We install blanking plates where there is no equipment to reduce hot air re-circulating through gaps in the rack. This reduces air heated by one device being ingested by another device, increasing intake temperature and reducing efficiency.

We install aperture brushes (draught excluders) to cover air leakage opportunities at the base and sides of each rack.

Racks have perforated doors to ensure adequate cooling airflow.

When selecting equipment for installation into cabinets we ensure that the air flow direction matches the air flow design for that area. This is commonly front to rear.

We review and if possible raise target IT equipment intake air temperature.

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### **Maintenance**

All installed Data Centre infrastructure and equipment is maintained by OEM and operated at optimum levels of efficiency.

### **Management of Existing IT Equipment and Services**

We completely decommission and remove any equipment that is not required or used to support services no longer in use.

Installed hardware is regularly examined to ensure that it is still required and is supporting active services.

Physical Servers are virtualised where possible.

### **Data Centre Power Equipment**

Power Utilisation Effectiveness (PUE) rating of 1.5

Multiple modular (near unity) UPS, Powerwave 9000 DPA, with 99.9999% reliability and uptime.

### **Monitoring**

We have visibility of IT energy consumption by metering at the cabinet level and individual power distribution units.

### **General Practices**

Lights are turned off automatically whenever areas of the Data Centre are unoccupied.