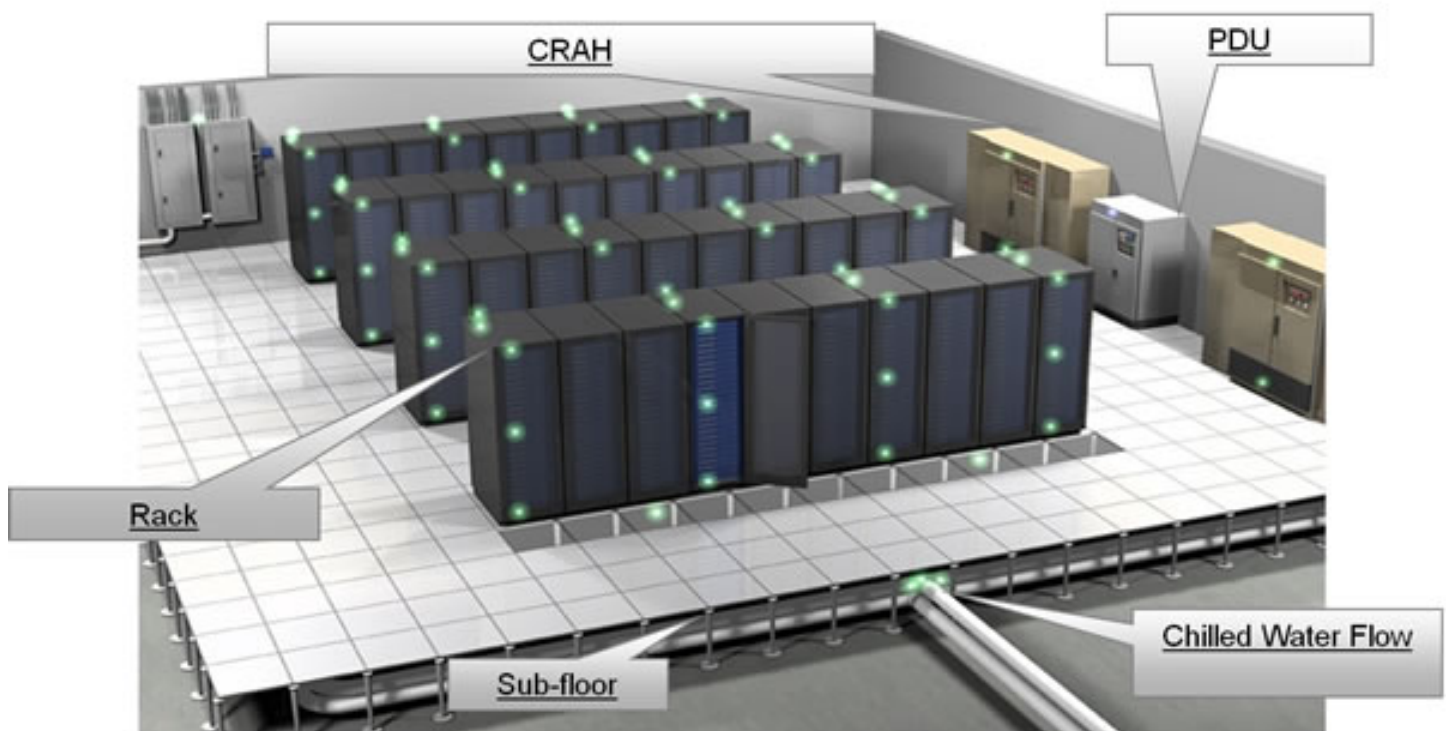# Mid-size data centre environments

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1   Data hall

The data hall is the main area of interest in a data centre where IT equipment is housed, Figure 1. Data centre environments may have one or more data halls, sometimes called suites.

Figure 1: Data hall schematic (TSM tutorials)

1.1   Raised floor

The data hall often has a raised floor, meaning that the tiles can be removed and a space exists under the floor, Figure 2. It is somewhat similar to a false-ceiling in reverse.

Not all data centres have raised floors. Where present, the raised floor has two key functions:

- Provides space for cooling air to circulate. Some times are solid but others are perforated to allow air to escape. More on that later.

Figure 2: Raised floor (Wikipedia)

- Allows cables to be routed and re-routed easily.

1.2   Cage

A cage is a subdivision of a data hall to demarcate a number of racks for security or regulatory purposes.
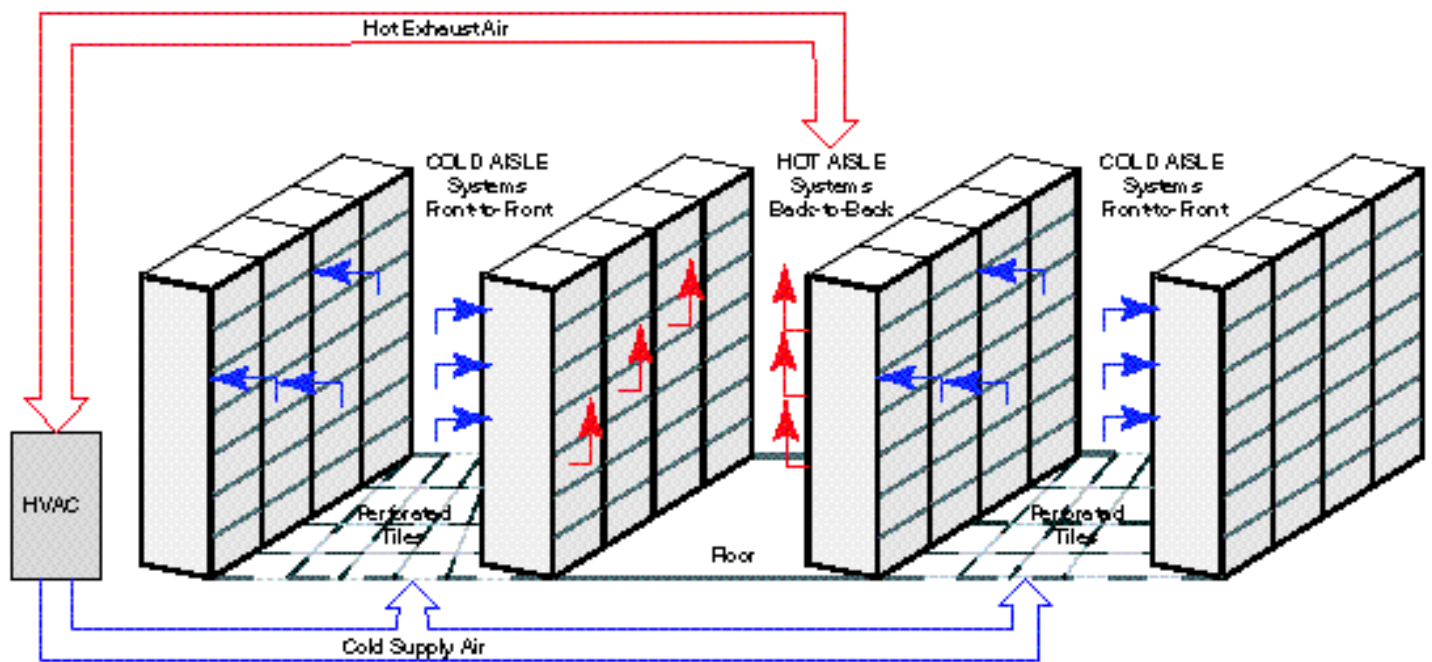
1.3   Rows

Where more than one cabinet is required, they are normally placed beside each other to form a row. The number of cabinets in a row will depend on spatial and usage requirements.

1.4   Aisle

An aisle is where two rows of cabinets face each other. Data centres normally use a hot aisle/cold aisle arrangement where servers face each other front-on or rear-on. This is to aid in cooling (see later).

Figure 3: Cage (Equinix)

Figure 4: Hot/cold aisle (Oracle)