**Case Study: Data Centre** 







## **Previously**

In Week 3 we were waiting for the main contractor to finish the work on the building. This consisted of putting the communication cables in before finishing the floor and completing the decorating.

## Week 4

The start of Week 4 was started with the preparation for the arrival of the 110kVA JS Power Generator. installation of Fire Suppression and the delivery of the 36kW Airedale InRak Air-conditioning units.

For the generator it was important that a solid plinth was created to give the generator a solid platform, otherwise this could mean the equipment will sink into the ground when running. The first job was to dig away the existing mound of dirt, which was outside of the protected fencing. As you can see from the picture, we have been able to cut this down so that this is close to level with the existing tarmac in the car park. As this is outside of the current path within the fencing, it will be important that the fencing is extended once the generator is dropped into place in the coming weeks. To allow the generator to be connected to the rest of the equipment, a 500mil trench has been dug alongside the drainage that has proved a difficult task to work by. The trench will be the home of all the necessary cabling to and from the generator and into the data centre, to ensure no equipment goes down.





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Generators

Inside the data centre before the installation of the air con, we have had to install all of the fire suppression to ensure the safety of the users within the building should any hazards occur. Fire suppression systems use a mix of wet agents and dry chemicals to suppress equipment fires. When fires are stopped early loss of life is minimal since fire-related deaths occur once the fire has moved past the early stages. Building and internal system damage is also reduced if the fire isn't given time to spread, making fire suppression systems almost as important in areas where there are rarely people, but there is lots of key equipment, like in a data centre.





The air-conditioning units also arrived this week. These two Airedale InRak units will be sitting at either end of the five server racks and the single comms rack. These units have been specifically built to deal with the needs of Together Housing Group, as they will require the room to deal with the heat demands of a maximum 36kW. With the InRak solution, this will provide cool air to the front of the equipment that will then circulate round to the back of the units. Containment will be built on top of the racks and air con units to stop the cold and warm air mixing over the top and the bottom of the equipment.

Outside the refrigeration engineers have been working to install the piping from the air-conditioning units down and outside to the condensers.

## **About**

Together Housing Group are one of the biggest housing associations in the North of England with over 38,000 homes mainly across the Yorkshire and Lancashire areas. Together Housing is a non-profit making organisation and any money they make is invested back into the association for the benefit of our residents and local communities. As well as houses to rent, they also build and manage homes for sale, sheltered accommodation and extra care.

UPS Systems plc have been in the backup power sector for 25 years. With experience from small one UPS applications, to large sites for multi-national companies we can find the right solution for you application.



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Generators Maintenance