

PROJECT:	Next DCP2 (Stage 1)
LOCATION:	Perth WA
SCOPE OF WORK:	Fire Suppression System
COMPLETION DATE:	2020
CONTRACT VALUE:	\$3M

The Next DC P2 Data Centre has been built to meet the increasing needs of today's digital economy. With direct access to Perth's hosted public clouds and highly available connectivity to Asia and the East Coast the facility will create the most interconnected technology hub in Western Australia. The facility covers 10,000 square metres of technical space and 20 Megawatts of power.



SCOPE DETAILS

Within our scope, Firesafe were tasked with the design and installation of:

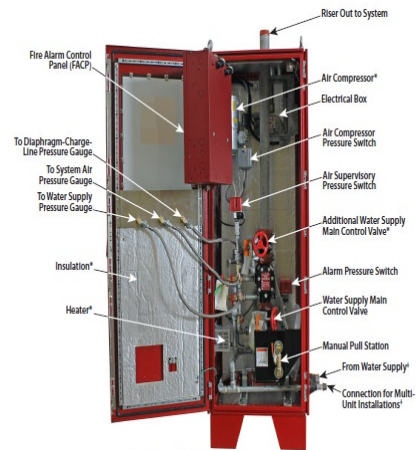
- A compliant Pre-Action Fire Sprinkler system in accordance with AS2118-1999/AS2118.6 2012.
- A compliant Fire Hydrant system in accordance with AS2419.1-2005
- Fire Pumps in accordance with AS2941-2013
- A compliant Water Mist Suppression system in accordance AS4587-1999
- A compliant Gaseous Suppression system AS4214-2018
- A compliant Fire Detection and Emergency Warning & Intercommunication system in accordance with AS1670.1-2015, AS1670.4-2015, AS167005-2015

Fire Hydrants are located in the North and Central stair core on each level of the building. Feed hydrants have been installed in the Fire Services Booster Cabinet located on Newcastle Street.

Fire pumps consisting of a duty pump, standby pump and jockey pump and serve both the sprinkler and hydrant system. Each pump is controlled by its own pressure switch arrangement located on the pump sets skid.

The Water Mist installation is to serve the Generator Rooms with nozzles located to discharge throughout the room once activated via a double interlock type B heat/thermal detector and IR3 flame detector arrangement. Infrastructure pipework is installed between the Basement, Level 1 and Level 2 with the control valve sets on Level 1.

The pre-action system has been installed to protect the corridors, offices and store room, the air pressure for the system is maintained by Nitrogen Blast united located in the Pump Room.



An IG541 Gaseous Fire Extinguishing system has been installed on Level 3 Data Halls with future connections available for data halls on levels 3 through to level 7. The central main and reserve bank of cylinders are installed in the Basement Storage Room. Infrastructure pipework and distribution valves are provided in the central fire stair Gas Riser from Basement to Level 7. The Gas system FIP is interfaced with the main FIP (MFIP) for fire brigade, mechanical services in fire mode operation, BMS and environmental monitoring rooms.

The Fire Detection system has been installed to alert the occupants to a possible fire condition in initiation of Alert and Evacuation tones. The MFIP is located in the lower ground entry on Newcastle Street. There is a Fire Fan Control panel located within the main FIP. Sub Indicator Mist System Control Panels are located in the Power Control Rooms on Levels 1 and 2.

The MFIP is interfaced with the pre-action, water mist, IG541 Gas System, Security System, Master Emergency Control Panel (MECP) as well as High Level interface (HLI) to the buildings CSMS system.

Control of the smoke fans, Stair Pressurisation Fans, outside air handling units and AC shutdown and fire trip signals from the FIP to the MCC panels.

Networked Data Gathering Panels are located in the lobbies of the Data Halls for monitoring of the Multipoint Aspirating Smoke Detectors (MASD).

The Master Emergency Control Panel (MECP) is an Ampac EV3000 panel and is located adjacent the MFIP in the main entry at lower ground level off Newcastle Street.

Warning is provided throughout the building via warning speakers wired within the building structure. Public Address announcements can be made using the hand held microphone located on the MECP.

Warden Intercom Points are provided for warden use located adjacent the North and South stair cores.

Visual alarm Devices are interfaced with the MECP to provide visual alarm indication in locations of high ambient noise or areas of potential reverberation.

The MECP is interfaced with the main FIP via a High Level Interface.

