

## SUCCESS STORY

# VESDA PROTECTS OVER 250 RACKS AT VOCUS MELBOURNE DATA CENTER

Vocus Communications is a leading supplier of telecommunications, data center and high bandwidth connectivity in Australia and New Zealand. Their flagship data center is set in the heart of the Melbourne CBD and is also the most recent Vocus facility to be built in Australia, with an additional 10 data centers spread across the ANZ region. This new data center is a premium facility specifically designed for businesses requiring the highest level of connectivity, power density, performance and security.

### THE CHALLENGE

Providing adequate smoke detection in a data center facility is often a challenge in itself but especially in a facility within a multi-tenanted building. Business continuity is vital and Vocus customers, including some of the leading telecommunication and wholesale providers, expect superior connectivity, premium and uninterrupted performance. Even a small amount of smoke can cause corrosion to mission critical equipment, resulting in disastrous consequences and service disruption to their customers.

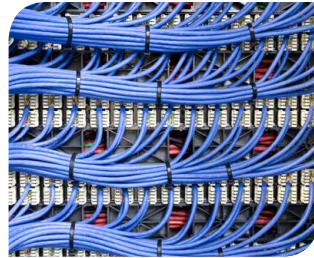
The data center is designed for 250 racks capable of supporting up to 30kW of power and cooling per rack via a hot aisle containment cooling methodology. This leads to a large amount of IT equipment stored inside the facility, which presents an increased fire risk due to a higher heat density. High airflow and air pressure also dilutes smoke dispersion into the environment, making very early smoke detection extremely difficult

### THE SOLUTION

VESDA was selected for its reputation in reliable and very early smoke detection. VESDA also protects other Vocus data centers throughout Australia where it continues to perform successfully. VESDA has previously detected incidents of power supplies failing inside the facilities detecting the small traces of smoke generated allowing the staff enough time for investigation and to mitigate any possible fire threat.

VESDA VLC (LaserCOMPACT) and VLF (LaserFOCUS) units were installed in the world class leading Melbourne data center to provide protection in general areas and Communications rooms, while a VESDA VLS (LaserSCANNER) unit was utilised for individual pods in data halls due to its multiple-zone addressability. To accommodate protection of the hot aisles and the need to comply to AS1670.1 standards and Xtralis guidelines, the design incorporated sampling points in the hot aisle sections as well as the open area ceiling. With any potential smoke or fire threat VESDA is able to locate the smoke at the incipient stage and provide a very early warning response so that the incident can be attended to early, allowing time to respond accordingly and avoiding the escalating consequences and potential damage.

# VESDA®



## THE OUTCOME

The design of the VESDA system allowed for a high level of sampling in all areas of the data center including the hot aisle and above ceiling sections, providing an exceptional level of very early warning smoke detection. VESDA is integrated with the dry pipe fire suppression system in the facility to initiate suppression activation if required. VESDA's extremely broad sensitivity range and ability to program multiple levels of alarm according to the level of the threat enables the release of suppression at the most opportune time and to minimize any unnecessary costs arising from early or unnecessary suppression activation.

VESDA is now providing very early warning smoke detection in all Vocus facilities across Australia. Vocus can continue to provide superior, reliable and efficient service to its customers with the knowledge and assurance that VESDA is protecting their mission critical facilities 24/7.

## ABOUT THE CUSTOMER

Vocus Communications is a leading supplier of telecommunications, data center and high bandwidth connectivity solutions in Australia and New Zealand.

The company owns and operates a global telecommunications network connecting Australia and New Zealand to the global Internet backbone in the USA and utilises its domestic network to provide telecommunications services to ISP and telecommunications markets. Vocus' additional telecommunications services also include data center and dark fibre solutions



### Project:

Data Center and Equipment Protection

### End User/Location:

Australia and New Zealand Data Centers

### Industry:

Communications

### Partners:

Olsson Fire & Risk, Consultant  
PMD Fire & Electrical Pty Ltd,  
System Integrator

### Solution:

VESDA VLC  
VESDA VLF  
VESDA VLS

"VESDA is a tried and true fire detection solution for our mission critical environments. Vocus are pleased to continue to utilise this solution to provide advanced fire detection capabilities within the hot aisle containment and high airflow environment. With VESDA's proven reliability and consistency for very early warning detection Vocus clients rest easy knowing they are well protected..."

Adam Gardner  
General Manager of Data Centers  
Vocus

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