



VESDA®

Financial Data Centers

**Protecting your
assets**

Consider the effects of:

- Downtime
- Equipment Damage
& Data Loss
- Service Interruption
- Business Continuity
- Reputation



Vision Systems

Today's Environment Demands High Quality Service

In today's competitive environment, the ability to deploy high quality service and application delivery is a vital component of success. In fact, a minor interruption in service, or loss of data could seriously impact your 24x7 operational continuity.

As global business continues to demand high-speed network connectivity, any smart financial data center recognizes the importance of protecting their infrastructure, equipment and data assets from the threat of fire.

Smart thinking means optimum mission-critical asset protection with an advanced fire detection and management system.

Consider...

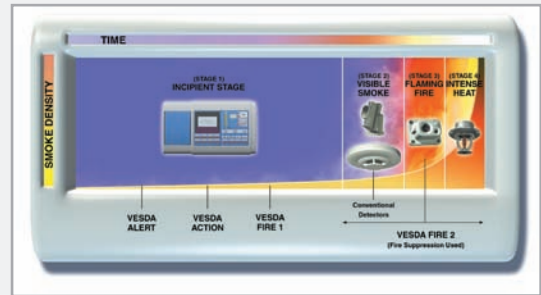
With an electrical usage 5 to 10 times the normal power requirement of a standard office, Financial Data Centers require specialist air conditioning to maintain their ideal operating environment.

Conventional 'passive' detectors are neither designed for high airflow environments, nor do they provide adequate fire warning for areas housing mission-critical equipment and data. Installing an air sampling 'active' smoke detection system is the smartest way to avoid the incidence of fire.

The VESDA Advantage...

VESDA - the world's leading air sampling smoke detection system - provides the earliest possible warning of a potential fire event by detecting smoke particles at the incipient (first) stage of fire. (Refer to Figure 1)

Detection at this state is crucial as the loss of data and equipment is inevitable once the third (flaming) state is reached.

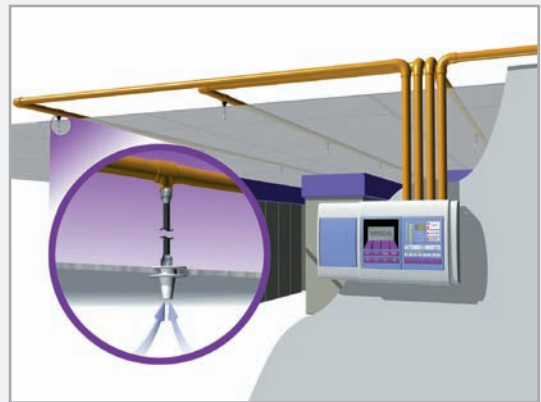


1 Fire Growth Curve

The progression of fire growth over time. The incipient stage (Stage 1) of fire provides the widest window of opportunity to detect and control the spread of fire. VESDA can be configured to generate multiple alarms during the incipient stage of fire.

VESDA provides proactive detection in these high airflow environments by actively sampling air from a protected zone via multiple sampling holes in a pipe network. The air sample is transported to a calibrated laser detector for accurate analysis. (Refer to Figure 2)

VESDA reliably detects fire at the earliest possible stage; providing a series of customized warning alarms to allow a controlled, early response to prevent fire progression.



2 VESDA Pipe Network



A Partial List of Major FINANCIAL DATA CENTERS that are Protected by VESDA:

Bank One
Bank of America
Cornerstone Financial
Wachovia
Chase Manhattan Bank
Merrill Lynch
Washington Trust
Fidelity
John Hancock
American Express
JP Morgan Chase
Deutsche Bank
Morgan Stanley Dean
Witter
HSBC Bank USA



Smoke changes can be reliably detected by VESDA's laser technology at a minimum level of 0.00023% obscuration/foot - a level invisible to the human eye. Its advanced technology allows alarm thresholds to activate outputs at specific smoke levels - in any environment.

This smart feature combined with VESDA's filtration technology and advanced learning capabilities, provides the earliest possible detection of fire and eliminates nuisance alarms. VESDA's early warning capability can also minimize the reliance on a suppression-type system and reduce the cost and disruption associated with suppression release or the damage water can cause on electrical equipment.

In addition, VESDA products offer the flexibility to interface with existing fire detection systems.

Performance-based Design

Although the design of fire protection systems has primarily been based on traditional prescriptive fire codes, there is an increasing emphasis on performance based codes that address individual environment requirements.

Performance-based design determines the best fire protection system by assessing the function, risk factors, and internal configuration and conditions of a specific environment.

VESDA complements your existing high-value control system of UPS, temperature and humidity management, and 24x7 user-access with its advanced fire detection technology.

Plus, its design flexibility addresses the unique internal architecture of a Financial Data Center by providing scalable solutions for small to large data centers and convenient effective detection in the under floor and ceiling void areas.

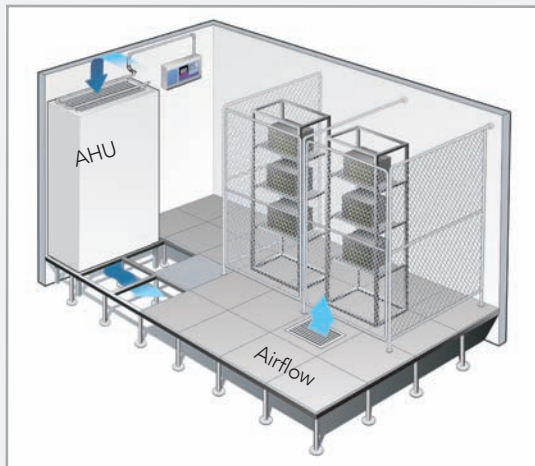
Financial Data Center Installation Scenarios

Application specific environments such as Financial Data Centers, code standards typically specify the requirement for smoke detection in both the ceiling, and floor void areas. When utilized at the ceiling level the VESDA system serves as primary detection, thus eliminating the need for redundant conventional detectors. VESDA complies with the requirements of NFPA 72 & NFPA 75 and is referenced by Federal Financial Institutions Examination Council's (FFIEC) in the operations booklet for risk mitigation and control implementation.

In addition to these code standards, several fire experts recommend a system configuration of Return Air Sampling (Air Handling Unit - AHU) and Cabinet Sampling.

Air Handling Systems

Since the incipient smoke is most likely to travel with the airflow, positioning VESDA pipework at the return air grille of the AHU ensures that any fire event generated in the environment is identified at the earliest possible stage. (Refer to Figure 3)

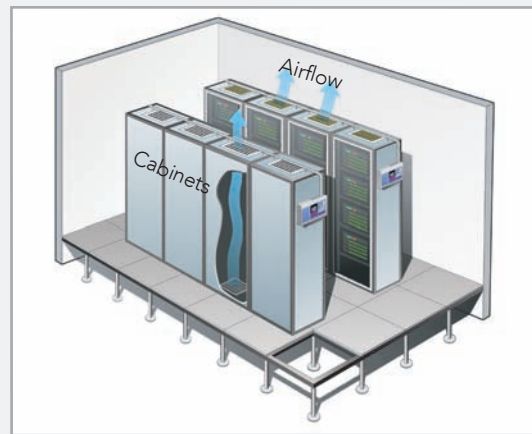


3 Top Vented AHU Return Air Grille Sampling

Cabinet Sampling

Due to the high number of cabinet-enclosed mainframes & IT equipment Racks in Financial Data Centers, Cabinet sampling is a smart solution for protecting these areas.

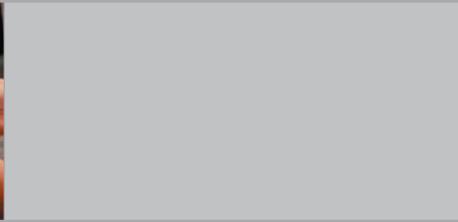
VESDA's pipe network flexibility allows for either Above or In-Cabinet sampling - providing maximum fire detection of either fully enclosed or top-vented cabinets. (Refer to Figure 4)



4 Above Cabinet Sampling



smoke detection solutions



very early warning

The flexible design approach and fire detection technology of the **VESDA** smoke detectors provides very early warning - a necessity to maintaining your business-critical **Financial Data Center** operation.

In Summary

Air Sampling Smoke Detection provides solutions for Financial Data Centers, NOC's, ASP's, ISP's, Server Farms, and major world-wide telecommunication companies.

A smoke detection system that offers the earliest possible warning of a potential fire.

A cost effective system that ensures business is never disrupted and valuable data is never lost!

One that delivers high performance, without nuisance alarms.

With These Credentials, Why Look Further?

- Proven, reliable, cost effective technology
- Readily available through hundreds of factory trained, authorized distributors
- Meets industry standards (NFPA 72 and proposed NFPA 75)
- Largest installed customer base

Global Approvals



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