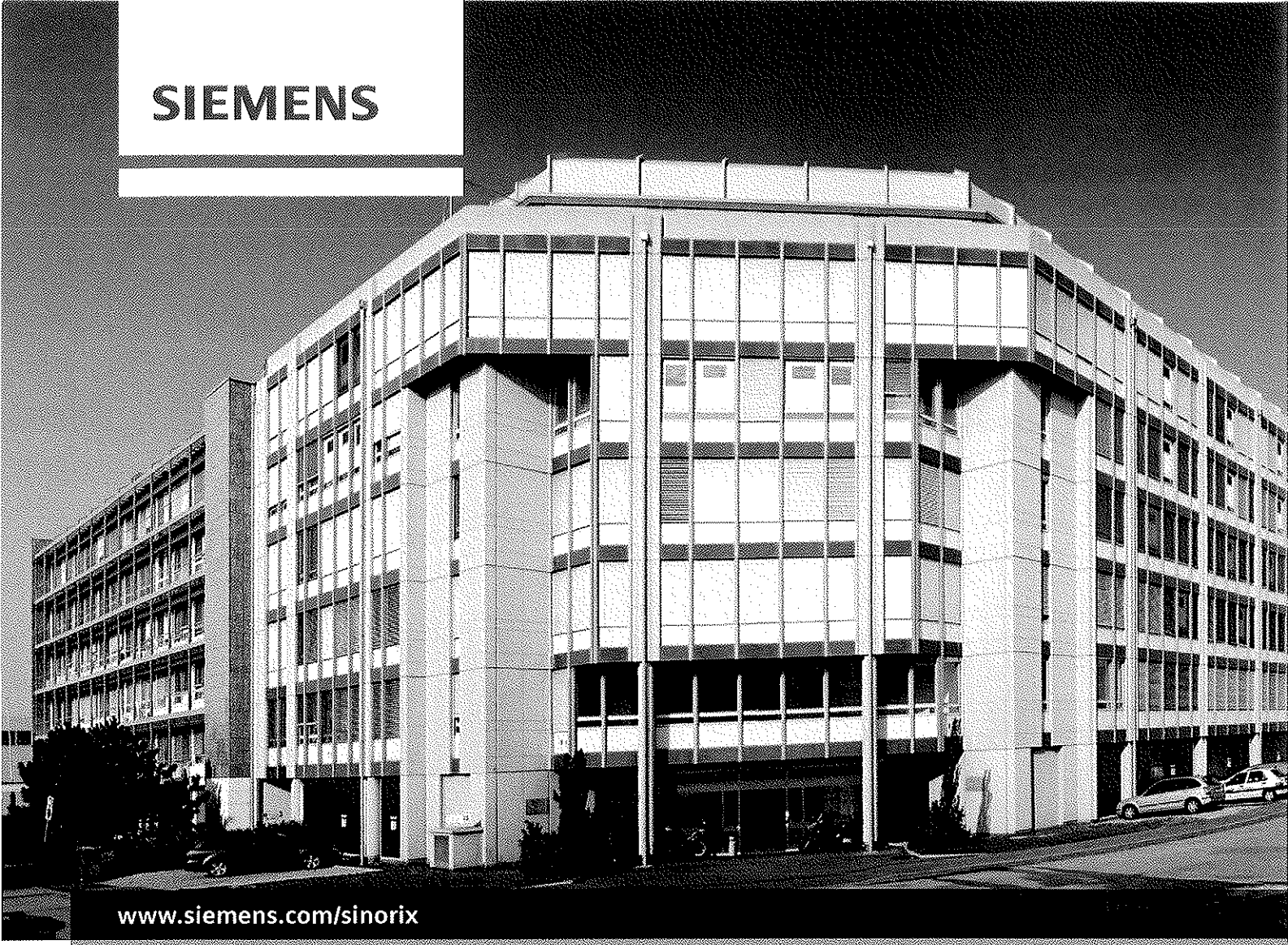
SIEMENS



www.siemens.com/sinorix

# Fire safety for priceless data

## Keep fire virtual. With intelligent extinguishing solutions from Siemens.

When it comes to fire, seconds count. Geneva-based provider Safe Host uses Sinorix extinguishing solutions from Siemens to protect the data and its customers.

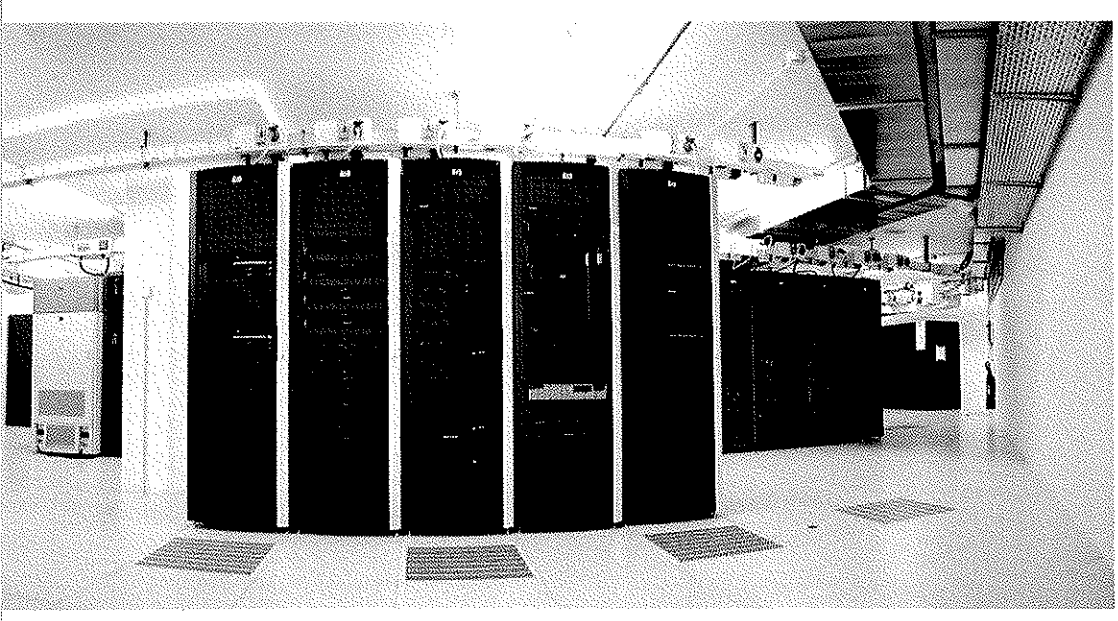
### The project

Very few companies operate their own data centers. This void is filled by service providers such as Safe Host whose data centers ensure that their customers can focus on their core business. Safe Host began operations in September 2002 and is today one of the leading providers of data center and workplace recovery services in Switzerland. The portfolio includes comprehensive IT services ranging from simple dedicated servers to business continuity and managed IT services for customers, including UNICEF, the International Committee of the Red Cross, luxury goods manufacturer Chopard and car maker PSA Peugeot Citroën. All for which a loss of data would be an absolute disaster.

### The challenge

Safe Host's 5,000 square meter Tier III data center in a Geneva suburb houses approximately 12,000 servers and storage devices. Like any data center also Safe Host is vulnerable to service interruptions. Therefore, it is an absolutely must to protect the IT infrastructure not only against hardware failures, data line and power supply interruptions, but also against fire. Reliable fire protection and extinguishing are essential. However, water or water-mist systems cannot be used to extinguish a fire in a data center. This is since moisture would potentially cause more damage to the sensitive electric equipment than the fire itself. Challenges Siemens provides the right answers to.

**Answers for infrastructure.**





## The solution

To protect its data center from fire, Safe Host uses a Sinorix™ $N_2$ inert gas extinguishing system. The building is divided into 21 extinguishing protected areas; each one equipped with its own extinguishing system comprising gas tanks, piping network and extinguishing control panel.

If the installed fire detectors detect and confirm a fire in one of the protected areas, the system automatically triggers the extinguishing process. Sounders and displays instruct people to leave and not re-enter the area. Meanwhile valves on the gas cylinders in the basement of the building are opened and nitrogen flows through a complex piping network into the area where it is needed. The nitrogen reduces the oxygen volume concentration, robbing the fire of one of its essential components, and extinguishes it. Overpressure flaps are used to ensure the structural integrity of the area.

## The benefit

Sinorix $N_2$ from Siemens uses pure nitrogen as the extinguishing agent. Already present in our ambient air, it presents no environmental hazards. Moreover, it offers excellent extinguishing properties for the fire classes A (solids), B (flammable) and C (flammable gases). It is also chemically inert, which means that it does not create any harmful reaction products that would harm sensitive electronic equipment.

Sinorix $N_2$ offers maximum flexibility in system planning and engineering. The system can be designed for either a 200- or 300-bar technology. It allows the realization of small to large multi-sector systems and to position the cylinders either centralized or decentralized. This means that the extinguishing system can be optimally tailored to existing building structures, requirements and risks of fire. Using pure nitrogen instead of a mixture of different gases also facilitates refilling because it is widely available.

## Highlights

- High flexibility in system planning and engineering
- Pure nitrogen and state-of-the-art technology for fast and reliable extinguishing
- Environmentally friendly and people safe solution
- Chemically inert – no harmful reaction products
- Pure nitrogen instead of a gas mixture facilitates refilling

Siemens Switzerland Ltd
Infrastructure & Cities Sector
Building Technologies Division
International Headquarters
Gubelstrasse 22
6301 Zug
Switzerland
Tel +41 41 724 24 24

The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

© Siemens Switzerland Ltd, 2012