PRESENTING A REVIEW OF THE OPTIONS AVAILABLE.

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Kidde Canada Inc.
220,000 employees, $43 billion in Sales
10,000 employees & 100 locations across Canada
Do Computer rooms burn?

Yes of course they do, but it’s hard to get statistics.

Reputation.

Insurance.
Where do fires start?

Electrical connections.

Circuit boards.

UPS equipment.

Electrical/mechanical components.

Not in continuous cables (except under floor).
COMPUTER ROOM FIRE PROTECTION

What a room should look like!
COMPUTER ROOM FIRE PROTECTION

What a room should not look like!
COMPUTER ROOM FIRE PROTECTION

What a room should not look like!
COMPUTER ROOM FIRE PROTECTION

The options offered by the Fire Protection Industry.

- Aerosols
- Water
- Gases
- Fire Extinguishers
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Aerosols

Inexpensive.

Quick to install.

Relies on particulate material.
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Water

Sprinkler systems - Intended for life safety and building protection. – Not protection of contents.

Water mist - Originally developed for heavy duty applications such as power plants and marine engine rooms. Requires large fire to function best.

Hybrid Water Mist with Inert Gas - Similar to Water Mist with less water but more gas.
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Gases

**Carbon Dioxide** - Probably the original extinguishing gas, around since early 1900s.

Very effective.

Relatively inexpensive.

Readily available.

No decomposition,

Environmentally neutral (almost).

Severe safety restrictions - suffocates fire and people.
Gases

**Inert Gases** - Developed to be greener alternative to Halocarbons of the 80’s and 90’s.

Displace Oxygen
Relatively safe for people.
Will stay in room regardless of integrity.
No decomposition.
Massive hardware. Large storage area.
Limited filling facilities.
Agent inexpensive, labour and transport costly.
Room pressurization, disruption in room.
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Gases

**Halocarbons/ Clean Agents** - developed specifically for electronic facilities, as a replacement for Halon 1301.

Cools the flame.

Safe for people.

Compact hardware. Small storage area.

Rapid deployment - 10 Second discharge.

Decomposition.

Limited filling facilities.

Agent relatively expensive, labour and transport inexpensive.

Minimal room disruption on discharge.
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Gases

Halon 1301
Clean Agent
CO₂
Inert Gas

Storage Required
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Gases

The Front Runners
DuPont FM200 and 3M Novec 1230.
Both extinguish fire by cooling, not Oxygen depletion.
Both from reputable companies.
Environmental differences.
Cost differences.
Potential for future use restrictions.
Gases
COMPUTER ROOM FIRE PROTECTION

How to optimize the Clean Agent fire suppression system; - **PLAN AHEAD!!!**

- Appropriate Fire Detection and Control.

- HVAC and Power on or off.

- Proper room construction.

- Room dimensions.
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How to optimize the Clean Agent fire suppression system

Room and void protection.

Room integrity.

Maintenance.

Visit from the fire department.