

Insight

When Small Is Big

New technologies are creating insurance coverage gaps that agents and carriers will need to address.

Microelectronics has changed the way we live, work and do business. Now, with circuitry so small that 100 million transistors can fit on the head of a pin, insurance must change too, with coverage for equipment-related losses when the damage is difficult to see.

For decades, the trigger for equipment breakdown and other property insurance has been a loss due to physical damage that can be observed and identified. As more equipment breakdowns involve microcircuitry, however, it's time to take a different approach.

Technology is evolving so quickly, it is hard to keep up. Business owners expect their insurance agents and carriers to help them understand these emerging exposures. When their equipment fails, even when the cause is unknown, they want it to be covered by insurance.

It's important to realize how much equipment risks have changed.

Since electronic components are so tiny, it can be difficult or impossible to see the damage when equipment fails. And with so much business equipment interconnected through the Internet of Things, a breakdown may affect multiple locations.

Think of all the equipment that contains microcircuitry. If it uses electricity, it probably contains tiny transistors and microprocessors. How small is small? Scientists offer this example: If a typical home got smaller and smaller the way transistors have over the years, you would not be able to see the house without using a microscope.

Our insurance claims data shows that equipment with microcircuitry is likely to break down in new ways that are difficult to diagnose and repair. Microelectronics also makes equipment more portable, increasing the exposure as equipment is used in remote locations.

Consider your own experience. Have you ever had a mobile phone or a television that just stops working? There is no obvious damage. You don't



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know where to start looking for the problem. In fact, it is unlikely you would notice any sign of the impairment or malfunction, even if you knew which component had failed.

Business equipment is no different. Equipment may stop functioning for no obvious reason, with no apparent physical damage. If a one-micron-wide wire breaks, it's virtually undetectable. Only time-consuming, costly forensic failure analysis can find the impairment.

Some problems aren't physical. Almost all electronic equipment requires firmware, embedded software instructions essential to equipment operation. When firmware becomes corrupted, the equipment stops operating. This is damage, but it's not physical damage.

With cloud computing, a loss may even be virtual. An estimated 75% of businesses use some type of cloud service. A Ponemon Institute survey for HSB found that 48% of smaller businesses had experienced a cloud service interruption.

Technology is leaping ahead with new capabilities that create entirely new forms of equipment, machines and applications. Sensitive microcircuitry makes it possible to operate powerful equipment in a business, or carry it in your briefcase.

As the pace of change accelerates, some of the traditional concepts of property insurance, developed over a century ago, may no longer serve businesses as well. In response, insurers are changing the products and services they offer.

Some equipment breakdown insurance will repair or replace equipment when microelectronics fail, even when there is no evidence of physical damage. Service interruption insurance coverage should include equipment-related cloud outages.

New technologies will continue to shake up the business and consumer markets in unexpected ways. It's time to bring equipment breakdown coverage into the 21st century, to respond to new risks from rapidly evolving technologies with bold new coverages.

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