# Insurance Coverage for E-Commerce: What Companies Need To Know

by Marc S. Mayerson and Robert E. Johnston

Between February 7 and 9, 2000, many of the Internet's biggest web sites, including Yahoo, eBay, and CNN.com were hit with Directed Denial of Service ("DDoS") attacks that prevented users from reliably accessing data and information.<sup>1</sup>

In May 2000, many of the world's computer systems, including those of the United States' government and many US businesses, were closed to e-mail traffic to prevent the spread of the "Love Bug" computer virus.<sup>2</sup>

On June 20, 2000, three Olympic governing bodies brought suit in Virginia against more than 1,800 web sites using the words "Olympic," "Olympics," or "Olympiad," or their equivalents in French and Spanish, seeking to have those sites closed down for infringement of Olympic trademarks.<sup>3</sup>

On January 24 and 25, 2001, Microsoft Corporation suffered a DDoS attack that closed down most of its web sites for portions of two days.<sup>4</sup>

On February 12 and 13, 2001, the Anna Kournikova virus caused businesses worldwide to close their e-mail systems to outside e-mail.<sup>5</sup>

Despite the numerous well-publicized examples of how even the world's most sophisticated technology companies are themselves vulnerable to computer attacks and other forms of Internet-based mischief, many companies doing business through the Internet today appear somewhat complacent about the legal risks they face as they seek to stake their claims to hoped-for Internet-based revenues, if not riches. In some instances, management may simply not comprehend the true legal exposures their company faces from their e-commerce transactions. A recent survey commissioned by Landwell, a legal-consulting firm affiliated with PricewaterhouseCoopers, reported that almost ninety percent of European dotcoms indicated they were not concerned about their legal responsibility or liability for Web site content.6

Companies similarly only now are beginning to con-

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sider whether and how insurance products may come into play in connection with their e-commerce activities. A survey undertaken by Schulman Ronca & Bucuvalas, Inc., for the St. Paul Insurance Companies,7 showed that roughly forty percent of US risk managers and thirty-eight percent of their European counterparts characterize their understanding of technology risks as "fair" or "not very good," while only eight percent of US risk managers (and eleven percent of the Europeans) believe they have an "excellent" grasp of technology-based risks. The St. Paul survey also showed that sixty-five percent of US and fifty-three percent of European risk managers have considered purchasing supplemental e-commerce-targeted insurance policies, newly introduced by a number of insurance companies and managing general agencies in the US (including AIG, Chubb, and InsureTrust) and by certain underwriters at Lloyd's.

The St. Paul survey shows that companies engaging in e-commerce have not fully considered how they should employ insurance products in connection with the risks of financial loss from e-commerce transactions. Companies should understand which risks will be covered by policies they already have paid for-as well as which risks will not be covered, so as to plan financially for the uncovered risks, which could include purchasing supplemental insurance policies targeted for e-commerce. Insurance products offer companies the opportunity to transfer by contract to a third-party—the insurer-various risks of financial loss from their operations. Were insurance not available, companies would have to pay for those losses or liabilities from their own currently available funds or seek short- or long-term financing from capital markets to cover losses or liabilities as they occur. Through the insurance markets, companies are able to obtain a contractual promise that the insurance company will pay for future losses or liabilities in exchange for the payment, ex ante, of premiums (plus the policyholder's attendant transaction costs in securing the insurer's performance at the time of loss).8 Insurance provides a company with a source of contingent capital or contingent financing for the costs associated with the occurrence of a fortuitous loss or liability, obviating the need for the company to tap its own funds

In this manner, insurance products encourage credit stabilization not only for the companies that purchase them, but also for the economy as a whole. A company can reasonably expect that its commercial counterparties are themselves protected by insurance against unexpected and potentially catastrophic losses and liabilities. Thus, the purchase of insurance enhances each party's creditworthiness and reduces the transaction costs that otherwise would arise if companies had to vet their counterparties' genuine exposure to catastrophic loss and wherewithal to absorb it.<sup>10</sup>

Companies also can turn to insurance markets in connection with a contemplated e-commerce business transaction to monetize and bracket uncertain risks that might otherwise impede or preclude its consummation. Insurance products can facilitate commercial transactions by transferring to the insurance company the financial burden of any future realization of the risks inherent in or associated with a transaction; in other words, parties to a transaction can utilize insurance instruments to monetize and liquidate the uncertain future costs of externalities and informational or other market uncertainties and failures.<sup>11</sup>

In this paper, we explore many of the insurable risks facing companies engaging in e-commerce transactions today and comment on several currently available insurance products, both old and new. We discuss the newfangled e-commerce insurance products more generally and consider how policyholders may be able to encourage insurers in this developing market to offer products better suited to genuinely transferring to insurers e-commerce risks.

#### I. Risks Associated With E-Commerce

Existing policies routinely purchased by companies no doubt apply to at least some exposures associated with conducting commerce via computer networks. And while most new policies introduced for e-commerce have shoehorned existing insurance-policy concepts into the e-commerce context, some policies represent ground-up efforts to create risk-transfer instruments that facilitate e-commerce transactions by absorbing the risk of loss from what are in effect informational deficits and risks endemic to this mode of conducting business.

Most policies applying to e-commerce today employ traditional concepts and wordings (or modifications thereof), so in the next section we sketch those background insurance concepts before considering their application to the risks associated with e-commerce. Understanding the accepted jargon also enables one to recognize and appreciate innovation as insurance companies bring new products to market.

#### A. Traditional First- and Third-Party Risks

In the traditional parlance, "first party" risks are risks of loss to the insured's interests alone and not involving property or personal interests of others. Traditional first-party property risks—risks to physical assets of the insured—include loss to the insured's property due to fire and smoke, storm damage (lightning, hail, wind), and other acts of god, and unlawful acts of third parties (such as vandalism or riots). First-party losses may also occur

as a result of theft of the insured's property by non-employees, embezzlement by employees, and through errors in electronic fund transfers. In connection with a covered first-party loss, businesses have a recognized "first party" interest in certain associated financial losses, such as the (i) increased costs of maintaining operations and (ii) reductions in revenue from an interruption in operations.

In contrast, "third party" risks are risks of financial loss to the insured from its liability or alleged liability to third persons. Traditionally, the most common thirdparty risks have been liability for bodily injury or damage to the property of another. Bodily injury or property damage can result at a company's business premises (e.g. slip-and-fall accidents), because of a company's operations (both on and off-premises), or as a result of products or services sold by the company (products liability). Companies may also be held liable for a variety of torts, including business torts such as defamation (including trade libel and product disparagement), invasion of the right of privacy, and misappropriation of the intellectual property of another (including copyright infringement, trademark infringement, patent infringement, misappropriation of trade secrets, trade-dress infringement and others).

Companies involved in the provision of professional services, such as system design and integration, engineering, and even data processing, face claims for economic losses to others—including but not limited to the purchaser of the service in question—caused by errors or omissions in the provision of those services. <sup>12</sup>

Directors and officers of companies face liability claims asserted by shareholders or others as a result of corporate decision-making. As part of the benefits provided to officers and directors, companies routinely contractually agree to indemnify directly the liability risks of these individuals related to company business.<sup>13</sup>

To cover these wide variety of first-party and thirdparty risks, companies traditionally have purchased a package of insurance policies including i) property policies, which protect the economic value of the physical assets of the company; ii) liability policies, which protect against financial loss associated with liability claims from third parties whose bodies or interests become injured as a result of the company's business operations; iii) "business income" or "business interruption" policies, which protect the company's income stream against unexpected interruptions and shut downs in operations and guards the company financially from an unexpected inability to conduct operations; and iv) "D&O" policies, which protect the company's directors and officers from personal exposure associated with their service (and fund the corporation's undertaking to indemnify them).<sup>14</sup>

#### B. New E-Commerce Risks

Companies engaged in e-commerce certainly are exposed to these same kinds of first- and third-party risks. At the same time, the means of e-commerce transac-

tions—use of computer networks and the Internet—introduce new and different risks of "first party" and "third party" loss. Companies used to worry about automobile accidents caused inadvertently by their salespeople; today companies engaged in e-commerce are — or should be—concerned about their employees inadvertently transmitting viruses or other malicious code that damage a customer's information assets. While the risk that a fire will burn down the physical site of the insured's operations remains for companies engaged in e-commerce transactions, hackers' corrupting a company's data or inducing its computer systems to shut down can render a physical site just as useless as if it had been torched.

To gauge the risks faced by e-commerce companies or transactions as to which insurance may (or should) respond, it is helpful to consider briefly three business-integration models for e-commerce: the point-to-point integration, 15 the hub-and-spoke integration, 16 and the Market-Maker or exchange integration. For these purposes, the key difference among these three models is the progression from a unitary, proprietary supplier/customer relationship to an "open to public" model. E-commerce risks naturally tend to increase as the site or portal owner becomes further removed from a direct relationship with its counterparties and opens up its web sites to strangers.

In the point-to-point model, a supplier and customer are likely to have preexisting business relationship. This relationship serves as a basis for evaluating counterparty creditworthiness and also acts as a brake on untoward business conduct (both ways). As a company moves to the hub-and-spoke model, the company's relationship with its counterparties may change. Where a portal is password protected, the counterparties may still know a great deal about each other. Where, however, the portal is open to the public, the knowledge available to an ecommerce company about its counterparties may be limited to items such as a credit-card numbers,18 shipping addresses, 19 and Internet Protocol ("IP") addresses. 20 The anonymity offered by the Internet offers opportunities for malicious activity (hacker attacks, viruses, DDoS attacks) at the company's web sites and increases exposure to counterparty credit risk. In addition, the more users a site has, the greater the ramifications from a denial or repudiation of service (whether caused by malicious acts or accidents) or from the site's serving as a vector for distributing viruses or malicious code.

Sponsors of exchanges/Market Makers are exposed to many of the same risks as companies operating point-to-point and hub-and-spoke integrations. They are exposed to the same risks of malicious activity, depending upon the extent to which the exchange is open to the public. They are also exposed to expanded liability resulting from denial or repudiation of service where, e.g., the exchange serves an essential industry-wide need. Although exchange sponsors do not experience counterparty credit risk directly (in their role as the exchange sponsor), they may face liability for the counterparty credit risk of their participants, because the

exchange sponsor may be perceived as vouching for them even though exchanges often utilize contracts that purport to disclaim all liability.

Like traditional risks, e-commerce risks can be categorized using the first-party/third-party risk nomenclature. "First party" risks associated with e-commerce include damage to the insured's own computer hardware or data caused by hackers/crackers, viruses, and other malicious code. First-party risks also include the risk of business interruption (whether caused by malicious acts (hacking/viruses), system failures, or DDoS attacks) and the extra expenses required to get the business up and running again. Additional advertising expenditures or public-relations expenditures may also be necessitated in the wake of such attacks.

Another first-party risk that e-commerce companies appear to be increasingly facing is extortion. Hackers have stolen confidential information, e.g., customer credit-card numbers, from web sites and threatened to make that information public unless ransom is paid. E-commerce companies also face the possibility of theft of products or services by fraudulent input or the use of fraudulent identities by counterparties and the risk of theft of code, data, or other intellectual property (including trade secrets). Even where the counterparty has not intentionally attempted to steal products or services, e-commerce companies may also face the risk of losses resulting from counterparty credit risk.

"Third party" e-commerce risks usefully can be grouped into two general categories, media risks and system risks. "Media risks" are those risks that arise primarily from web site content sponsored by a company. These risks include defamation or trade libel (resulting either from materials knowingly published by the company or maliciously inserted by hackers), invasions of the right of privacy (including theft of consumer data, misuse of private customer information, false-light publication, and use of the name or image of another without permission),22 infringements of trademark, copyright, trade dress, trade secrets or other intellectual property (including possibly patent infringement), and other types of improper competition, including violations of unfair-trade-practices or consumer-protection statutes, antitrust violations, and restraints of trade.

"System risks" are those risks that arise simply because of the fact that e-commerce takes place on a connected computer network. These risks include damage to the hardware or data of third parties as a result of malicious code placed into the company's computer system by hackers or through viruses and liability for losses to third parties caused by their inability to access the company's computer system due to a hardware or software failure or DDoS attack.

Many of the various insurable risks that e-commerce companies face can be summarized as follows:

#### **First-Party**

- damage to insured's own computer hardware, data or systems from hackers, viruses/malicious code, and theft
- · loss/theft of products or services
- theft of data or intellectual property
- business-income loss from business interruptions
- extra expenses incurred because of business interruption, including advertising or public-relations costs
- extortion
- · counterparty credit risks

#### **Third-Party**

- damage to or loss of use of a counterparty's data or hardware because of the transmission of viruses/malicious code
- · denial or repudiation of service
- bodily injury resulting from website content
- · products-liability claims based on website
- media risks: defamation or trade libel, invasions of right of privacy, infringement of intellectual-property rights, unfair competition, whether arising from content intentionally placed on a site by the company or maliciously placed by a hacker
- possible Market Maker liability for counterparty credit risk of site participants
- indemnification of directors and officers<sup>23</sup>

In the sections below, we look at how these risks are likely to be treated under traditional policy forms and evaluate the additional benefits provided by the new ecommerce policies.

# II. Current Insurance Coverage For E-Commerce Risks

A variety of insurance products are currently available that cover at least some e-commerce risks, many of which are purchased by companies as a matter of course. These policies include traditional, standard-form first-party and third-party policies as well as newly minted "e-commerce" focused products. Some risks are covered under both types of policies; some risks, by neither.

# C. First-Party Property Insurance

## 1. Traditional First-Party Property Coverage

Under the current standard-form, first-party property policy, the insurer agrees to pay for "direct physical loss or damage to Covered Property" resulting from specified "Causes of Loss" ("perils"). <sup>24</sup> Covered Property generally includes buildings (including permanently installed equipment and machinery contained in covered buildings), the "business personal property" of the insured (including furniture, fixtures, equipment, machinery and stock), and personal property of others in the insured's control or in buildings occupied or controlled by the insured.

Traditional first-party property insurance policies cover property against either all risks of physical loss or only those risks of physical loss expressly named in the policy. Under an "all risk" policy, the insurer purports to cover all risks of loss, known and unknown. "Named peril" policies, in contrast, provide coverage only for

losses resulting from risks listed specifically in the policy.

Whether a particular policy provides all-risk or namedperil coverage turns on which "Causes of Loss" form is used. For named-peril policies, the "Causes of Loss-Basic Form" identifies the following covered causes of loss:

- · fire
- lightning
- explosion
- · windstorm or hail
- smoke
- aircraft or vehicle collision
- · riot or civil commotion
- · vandalism
- · sprinkler leakage
- sinkhole collapse
- · volcanic action

The Basic form also expressly excludes coverage for loss caused by, among others, earthquake, power failures, and pipe leakage. The named-peril coverage provided by the Basic form can be augmented by use of "Causes of Loss—Broad Form," which adds the following covered perils: falling objects, weight of snow or ice, and water leakage from pipes or other systems. 26

A different "cause of loss" form, titled "Causes of Loss—Special Form" converts the traditional, first-party property policy into an *all-risk* policy. Under the Special form, the phrase "Causes of Loss" is defined as "risks of direct physical loss." Accordingly, the all-risk property coverage provides coverage for all "direct physical loss or damage to Covered Property" resulting from any risks of direct physical loss (and not just those risks

named specifically when the policy is first sold).27

All types of the standard-form policy impose identical "Loss Conditions" that establish certain obligations of the insured and that define the process by which claims are to be adjusted. "Loss Conditions" include provisions requiring the insured to submit any disputes regarding the value of the lost or damaged property to an appraisal and binding arbitration, and affording the insurer discretion to determine whether it will pay the actual value of the loss or replacement cost.

Traditional first-party property policies include a number of provisions addressing data loss. Property policies provide coverage for data loss only on a named-peril basis. The all-risk policy excludes coverage for data loss, unless the loss or damage results from a "specified cause of loss," which in turn is defined as the named perils of the Broad form. Furthermore, the cost of gathering lost data is typically excluded from coverage<sup>28</sup> unless the insured purchases a "Coverage Extension" provision providing that the insurer will pay for the cost to gather and replace lost data up to \$2,500 per business location.29 The "valuation" provision of the Loss Conditions section further provides that for damaged or lost data or records the insurer will pay only the cost of new (blank) storage media and the cost of labor to transcribe or copy data (where duplicate data exists). As we elaborate below, these provisions are not implicated or entirely controlling with respect to every data-involved first-party loss.

# 1. Coverage For E-Commerce Risks Under Traditional First-Party Property Coverage

Traditional first-party property policies at the core are focused on physical assets of the insured. The insured's ability to recover turns on (i) whether the assets in question constitute covered property and (ii) whether whatever those assets suffered constitutes "direct physical injury or loss."

That computer hardware constitutes property covered under the first-party property policy should hardly be controversial. The standard first-party property policy includes "machinery" and "equipment" within the scope of "Covered Property." On the other hand, whether data and software assets constitute "Covered Property" has been challenged by insurers in some recent cases who have contended that data loss is not covered at all.

Policyholders may argue that data and software are encompassed within covered "machinery" and "equipment". Data do not exist in the aether; there is an electrical—hence physical—inscription of them. The same is true with installed software. But even if data and software are not encompassed within covered "equipment" or "machinery," policyholders may rely on the coverage for business "personal property," which includes furniture, fixtures, machinery, stock and all other personal property owned by the insured and used in the insured's business.

Although there appear to be no governing decisions

considering whether data and software constitute covered "property" (of whatever stripe) in the first-party context, 30 there are well-reasoned cases construing third-party liability policies that strongly support the availability of coverage under first-party forms. 31 In Retail Systems, Inc. v. CNA Insurance Co., 32 the Minnesota Court of Appeals held that computer tape and the data contained thereon constituted tangible property. Noting that the value of the loss suffered was greater than simply the cost of replacement storage media, the court recognized that the data on the tape was "of permanent value and was integrated completely with the physical property of the tape." 33

Assuming that both computer hardware and data assets can properly be considered "property" in the first-party insurance context,<sup>34</sup> the question remains whether data can suffer "physical loss or damage." Although insurers may argue that hacker attacks, viruses, or even inadvertent data corruption do not "physically" destroy computer systems, when data becomes corrupted or deleted the magnetic properties of the storage media are physically altered or effectively destroyed. If data and software are sufficiently "physical" to constitute covered first-party property, they naturally suffer "physical" loss when they inalterably cease to function properly.

At least one federal district court has so held. In American Guarantee & Liability Insurance Company v. Ingram Micro, Inc., 35 the insured sought coverage under its first-party property policy for business-income losses (discussed in more detail below) incurred when its computer systems were disrupted by a power failure. The power failure caused sensitive data residing in the memory of the insured's computer systems to be deleted, precluding the company from resuming operations immediately once power was restored. The insurer argued there was no coverage because the computer systems were not "physically damaged" since "[t]he power outage did not adversely affect the equipment's inherent ability to accept and process data and configurations settings when they were subsequently reentered into the computer system."36

The court rejected this argument, holding that "physical damage" is not restricted to the physical destruction or harm of computer circuitry, but includes "loss of access, loss of use, and loss of functionality." Relying on various state and federal laws that criminalize causing "damage" to computer hardware or data, the court stated: "Lawmakers around the country have determined that when a computer's data is unavailable, there is damage; when a computer's services are interrupted, there is damage; and when a computer's software or network is altered, there is damage." The court held that the loss of use of Ingram Micro's computer system for eight hours due to the wiping of data from RAM did, in fact, constitute physical damage within the coverage of the traditional business-interruption coverage.<sup>39</sup>

Even if first-party property policies are found to provide coverage for data loss and the associated loss of

use of computer systems, insurers may seek to limit the financial scope of their obligations by relying upon the provisions "extending" coverage for data-collection costs and provisions governing valuation that purport to limit amounts payable for records stored as electronic data. Policyholders can argue that, because there is no provision in the "valuation" section of the policy expressly addressing the intrinsic value of data (as distinct from gathering costs), the insurer should pay the actual value of the data at the time of the loss (in addition to its replication/copying cost, which amount is subject to a separate sub-limit). Such an argument presumes, of course, that there is a mechanism to determine the actual, intrinsic value.40 Carriers may argue that valuation provisions themselves provide the exclusive formula for determining the policy's payout in the event of some computer- or data-related loss and that the intrinsic value of data (though covered property) is implicitly zero. Insurers may thus contend that the policy provisions addressing coverage for the replacement of valuable papers and records, including those stored in magnetic format, together constitute a sub silentio exclusion for all loss but the cost of purchasing replacement media and labor costs incurred in copying the data to the new media.41

# 3. First-Party Property (Asset) Coverages in E-Commerce Policies.

There are no standardized policy forms covering ecommerce risks. Although many insurance carriers offer specific e-commerce liability policies (which are discussed below), substantially fewer carriers offer firstparty e-commerce coverage. Each insurer has developed its own product, and substantial differences in coverage can be encountered, though in the main these policies have been adapted from Electronic Data Processing forms.<sup>42</sup> For example, some first-party policies geared to e-business cover only "Intellectual Property," defined as trademarks, trade names, copyrights, trade secrets, confidential or proprietary business information and software (including data and related documentation), while other policies provide coverage for all "information assets" defined generally as "your computer system including the electronic data stored thereon." Accordingly, policies need to be scrutinized to ensure they provide coverage for the data, computer hardware, and other assets each particular company seeks to insure.

All first-party property e-commerce policies are written on a named-peril basis, although some policies are written in such a way that they appear, at first glance, to be all-risk. For example, one currently available policy promises to pay all "direct loss" (whatever that may be) resulting from "injury to your information assets," but the funnel narrows in that the policy names the following as covered "injury": "the altering, copying, misappropriating, corrupting, destroying, disrupting, deleting or damaging of information assets." Other policies written expressly on a named-peril basis cover:

- unauthorized taking of electronic data (otherwise protected by adequate security systems)
- malicious (subversive or unauthorized) introduction of malicious code or data causing deletion or destruction of data
- computer attacks (viruses, hacking and DDoS attacks)
- the inability of systems to provide proof of origin or delivery of messages needed to complete e-business activities
- fraudulent input of information into the insured's computer system
- fraudulent modification of information in the insured's system
- fraudulent preparation or modification of computer programs, and
- · accidental alteration of data.

Virtually all of the first-party e-commerce policies available also offer coverage for losses resulting from extortion. Given the recent experiences of some Internet retailers, this coverage may become of increasing value. The policies will reimburse the insured for ransom paid with the *advance consent* of the insurance company. This coverage is not part of the traditional first-party property package (although extortion coverage may be purchased through crime policies and specialized instruments).

As with the traditional policies, the valuation provisions in e-commerce policies merit close attention because they provide a backdoor for insurers to limit the amounts they contribute to the insured's loss.43 Valuation provisions vary greatly from policy to policy. Some policies expressly provide for the payment of all actual and necessary costs incurred to replace, reproduce, recreate, or restore data (with limited exceptions where the data can be "recollected" or where the assets cannot be replaced). These policies appear to cover the costs of collecting (reconstructing) data, the cost of replacing media, and the cost of labor to transfer the data to replacement media. Other policies provide for only the cost of replacement media and "costs of labor for the actual transcription or copying" of data. Policies with such provisions appear to provide very little beyond what the traditional forms provide.

It should also be noted that most of these first-party policies require arbitration of policy-related disputes.

Companies engaged in e-commerce should purchase conventional first-party property coverage to protect against "traditional" risks of loss to "traditional" property. How those policies extend to e-commerce risks remains uncertain in part because as yet relatively few claims have been pursued. Although policyholders may succeed in obtaining coverage under the traditional first-

party property insurance products, the prospect of arbitration, litigation (including expert witnesses), <sup>44</sup> delay, and ultimately settlement/compromise to obtain the "certainty" of the insurer's performance may make purchase of these new e-commerce policies more attractive (assuming for the e-commerce carriers that certainty of performance is more likely if not more willing). The new policies do tend to cover expressly (to some extent) most identified risks of loss to e-commerce companies. Accordingly, it is sensible for companies engaged in e-commerce to at least consider new, e-commerce first-party coverages in addition to traditional products. <sup>45</sup>

## D. Business-Interruption and Extra-Expense Coverage

When assets crucial to the ongoing operations of the business are damaged or rendered unusable, companies face losses beyond simply the value of the damaged or destroyed items. Companies may suffer a loss of business income and incur extra expenses in maintaining operations that would not otherwise have been incurred had the loss not occurred. Insurers traditionally have offered coverage for such consequential losses in the form of "Business Income" or "Business Interruption" coverage and "Extra Expense" coverage, which are invariably provided together as part of package business first-party property policies. These coverages both compensate the insured for the business income lost following damage to covered "property" assets and fund the insured's efforts to get the business operational again, thereby mitigating or avoiding additional income loss. Companies engaged in e-commerce can protect against the risk of business interruption under either traditional property policies or e-commerce focused policies.

## 1. Traditional Business-Income and Extra-Expense Coverage

The current standard business-income and extra-expense coverages are written as adjuncts to the traditional first-party property policy, and they suffer from many of the same infirmities that traditional property policies do when applied to the world of e-commerce. The insurer agrees to pay for the "actual loss of Business Income":

- (1) sustained during the "necessary suspension" of the insured's operations
- (2) caused by "direct, physical loss of or damage to property"
- (3) resulting from a "Covered Cause of Loss."

The coverage form also provides coverage for extra expenses, defined as those "necessary expenses you incur during the 'period of restoration' that you would not have incurred" had there been no business-interruption loss in the first place. Covered "extra expenses" include the cost of acquiring and equipping a temporary location, the cost of repairing or replacing property needed to continue operations (to the extent that it re-

duces the business-income loss), and costs to research, replace or restore information contained in Valuable Papers or Records needed for on-going operation. In other words, business-income/extra-expense coverage provides for continued income during the period that a business cannot operate due to a "direct, physical loss of or damage to property" and the expenses necessary to get the business going again. Because the coverage is part of standard property coverage, the availability of coverage turns of the application of "covered property" and covered "causes of loss" language discussed above concerning first-party property-damage coverage.<sup>47</sup>

It bears noting that traditional business-income policies appear premised on the insured's earning net income. Accordingly, in the context of a dotcom or startup currently operating at a loss the calculation of the business-income loss may be unsatisfactory. Moreover, the traditional coverage form provides that, where the loss of business income results from the loss of or damage to Electronic Media and Records, the maximum period of covered business interruption can be no longer than 60 days.

In what may come as a surprise to most policyholders, some insurers maintain that their business-interruption/extra-expense coverage applies only where, following a physical loss to covered property, there is a complete cessation of all the policyholder's business activities. The traditional business-interruption/extraexpense policy provides coverage for losses the insured "sustains due to the necessary suspension of . . . 'operations.' "48 Carriers have successfully argued that there is no coverage for business interruptions unless the insured's operations cease entirely. For example, in Home Indemnity Co. v. Hyplains Beef,49 the insured suffered a slowdown in its meatpacking business as a result of the inability of the computers on the rendering floor to transmit data to other computers in the system. The business was not completely shut down. The court agreed with the insurer and held that there was no coverage under a business-income and extra-expense policy. The court explained: "[T]he policy does not provide coverage for a slowdown or reduction in operations, rather it requires a 'necessary suspension' of operations."50 Relying on dictionary definitions of the word "suspension," the court held that, because the policyholder continued operations, there was no coverage.<sup>51</sup>

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Insureds under business-interruption policies (which we note are *not* known as "business shutdown" policies) expect coverage for direct and consequential losses following the destruction of company property. Where that property loss has the effect of precluding the insured from generating the same level of revenue as before the loss, insureds naturally expect that their costs of repairing or replacing the damaged property are covered, as is the consequent loss of business income. Most insurers apparently have embraced this view historically, as evidenced by the paucity of "partial suspension" coveragedenial cases before *Hyplains Beef* was decided half a dozen years ago.<sup>52</sup>

As noted above, last year the federal district court in the Ingram Micro case found in favor of business-income coverage for the loss of the operational income from a data center stemming from a power failure. Ingram Micro is a wholesale distributor of microcomputer products that used a worldwide computer network to track customers, products, and transactions. The coverage claim arose out of a power failure at Ingram Micro's data center, which caused three mainframe computers to lose all of the programming information that had been stored in their random access memory ("RAM") resulting in the cessation of all operations at Ingram's data center (but not the company as a whole). Although the mainframes became operational one and one-half hours after the power outage, Ingram Micro was forced to reload data to the mainframes' RAM before the data center could resume operations (which took about eight hours). The court ruled in favor of coverage, holding that Ingram Micro was entitled to recover its lost income (and presumably extra expenses) under its traditional business-income policy for the loss of use of its "covered property," its computer system.

# 2. E-Commerce Business-Interruption Coverage

Virtually all of the available e-commerce insurance products that provide first-party property coverage also provide Internet business-interruption and extra-expense coverage. This coverage is usually offered on a namedperil rather than all-risk basis. Accordingly, under these specialty policies, business-interruption and extra-expense coverage generally is provided only where data has been altered or destroyed by hacking/cracking, theft or disappearance, accident, copying, or by operation of viruses or other malicious code. Some policies also provide coverage where there has been a DDoS attack and where the system is unable to complete e-business transactions because of the inability to provide proof of origin or to send messages or data necessary to complete such transactions. Some carriers also require that the business interruption result from the failure of the company's reasonable security measures.

Most Internet business-interruption policies state that there is coverage where there has been an "interruption, suspension or delay" in the performance of e-business activities. By including the words "interruption" and "delay" in addition to the word "suspension" in e-commerce policies, coverage should be provided even when, following a covered loss, the business suffers only a slow down or something short of total shutdown or cessation of operations.

E-commerce policies also provide specific valuation schemes for business interruption tailored to the e-commerce environment. They usually contain language that expressly takes into account the fact that some e-commerce companies may operate in a net-loss position. Moreover, the period of eligible recovery of loss and expenses extends to twelve months for all losses unlike the traditional policies which limit coverage from data

losses to 60 days.

One benefit to purchasing Internet business-interruption coverages is the hedge they provide against the uncertainty of coverage provided by traditional products. Should the courts continue the current trend and find that the loss or corruption of data results in physical damage to data and computer systems and also hold that the traditional product does not require a complete cessation of operations, e-commerce companies may well be satisfied with the coverage provided by the traditional form. By purchasing e-commerce specific products, the policyholder clearly avoids some litigation risk in seeking recovery for a business-income loss.

One significant practical point that e-commerce companies should consider when evaluating this coverage, old or new, is the amount of money payable for extra expense. Because of the nature of e-commerce in the developing Internet economy, for some companies any interruption in its conduct of business may prove fatal. An inability to process transactions or provide access to other web-site features may cause the public to write that site off or businesses to look elsewhere for their commercial requirements. An e-commerce company, particularly one operating at a loss, may have little expectation of significant business income recovery. On the other hand, the costs of getting an e-commerce company's web operations up and running after an interruption could be quite substantial (including the costs of renting space at a server farm, getting new servers on-line, creating temporary call centers, and renting temporary locations). Business-income payments do little good when the company is going out of business because of a lack of consumer confidence in the stability of the services offered.

## E. Liability Coverage

### 1. Traditional Liability Insurance Protection

Liability insurance products are available to protect the company from the costs and expense of unexpected liabilities to others. In addition to traditional liability-insurance protection available for third-party bodily injury and property damage, insurers routinely cover a wide variety of liability claims associated with invasions or violations of non-physical, protected legal interests. These liabilities include a variety of personal and business torts, including defamation, trespass, invasions of privacy, and unfair business practices.

The standard comprehensive (or commercial) general liability ("CGL") insurance policy offered today provides three principal coverages: 1) all-risk coverage for liabilities of an insured for bodily injury or property damage to third parties (largely physical injuries); 2) named-peril coverage for "personal injury" and advertising-injury liability to third parties (largely non-physical injuries); and, in each instance, 3) defense coverage for any claim that potentially could be covered by the policy.

These policies state that the insurer will "pay those

sums that the insured becomes legally obligated to pay as damages because of bodily injury<sup>53</sup> or property damage<sup>54</sup> to which this insurance applies" that "occurs"<sup>55</sup> within the policy period.<sup>56</sup>

CGL policies provide protection for more than the company's liability to others for bodily injury and property damage; they also provide that the insurance company will indemnify the insured for its liability for "personal injury" and "advertising injury," defined terms that focus on injury to the legally protected non-physical interests of third parties. Although written in the language of all-risk policies, this coverage is actually provided on a named-peril basis.<sup>57</sup>

"Personal Injury" is defined as "injury, other than bodily injury," arising out of the offenses of false arrest, malicious prosecution (and abuse of process), trespassing (or other invasion of the right of private occupancy), defamation (libel and slander), publication of material that violates a person's right of privacy, and, in more recent policies, discrimination against customers and third parties. "Advertising Injury" is defined as injury occurring during the course of advertising the insured's products, goods, or services arising out of the offenses of defamation (libel, slander, including trade libel), publication of material that violates a person's right to privacy, misappropriation of advertising ideas or style of doing business, and infringement of copyright or slogan. Older CGL policy forms also covered the "offenses" of "unfair competition" and "piracy" within the definition of advertising injury.

Exclusions to the personal-injury and advertising-liability provisions bar coverage for claims arising out of the publication of material with knowledge of its falsity, breach of contract (other than misappropriation of ideas), and failure of goods and services to conform to advertised quality or performance. Importantly, as discussed more fully *infra*, the standard policy language excludes from coverage any offense committed by an insured whose business is advertising, broadcasting, publishing, or telecasting.

In addition to indemnifying the insured for payments for damages for bodily injury, property damage, "personal" injury and advertising injury, CGL policies also provide "litigation insurance," that is, insurance against the costs and expense of litigation associated with such third-party claims. Under the law in most states, the insurer's duty to defend attaches whenever there is a potential that the claim against the insured may result in an award of damages that falls within one of the coverage grants. For example, in Centennial Insurance Co. v. Applied Health Care, 58 the Seventh Circuit required the carrier to defend a policyholder against claims that data owned by a third-party was damaged as a result of a faulty electronic switchboard manufactured by the policyholder. Though not reaching the question whether the third-party's data loss constituted covered "property damage," the court found the insurer had a duty to defend because the complaint raised the "spectre that liability for property damage may ensue."59

As Applied Healthcare illustrates, courts typically construe insurers' obligations to defend under standard CGL policies quite broadly. The duty to defend is considered to be broader than is the duty to indemnify because the insurer may properly be called upon to defend third-party claims for which it does not ultimately have to pay the third-party's damages. Equally important, in most policies, monies the insurer pays for defense costs do not count against the policy's per-occurrence or overall aggregate limits.

#### 2. E-Commerce Liability Insurance Issues

Incorporeal web-based business transactions can have corporeal impacts resulting in claims of liability for bodily injury or property damage. A data-entry error showing the wrong part number in an on-line catalogue can give rise to product-liability suits seeking to recover for bodily injury or property damage on the ground that the error in specification, where it does result in injury or damage, was a product defect.

To the extent that bodily injury to a third person results from on-line e-commerce activities, traditional CGL policies likely provide coverage. 63 Coverage is provided for physical injuries to tangible property. Coverage also is provided where a third party is deprived of the use of its tangible property but the property in question is not also physically injured; such "loss of use" claims are defined expressly to be "property damage."64 Thus, when malicious code transmitted from the insured's computer system causes the processor contained in a counterparties computer system to overclock, overheat, and physically fail, coverage should be provided under CGL policies. Even if courts ultimately conclude that injury to data does not constitute physical injury to tangible property under the definition of property damage coverage likewise should be provided where malicious code renders inoperative or precludes the ordinary use of a counterparty's computer system.65

As with traditional first-party property policy forms, coverage turns on the familiar questions whether a particular item is "tangible property" and whether the property in question can suffer "physical injury." As noted, carriers may argue that data do not constitute "tangible property" and that, in any event, data cannot be "physically injured." As discussed above, the case law in this area is sparse, though appears to be trending favorably to policyholders. 66

In addition to the danger of actually destroying or causing the loss of a third-party's data, e-commerce companies also face potential liability where a business counterparty is unable to access the insured's web site, portal, or network (whether because of computer attack or a hardware or software failure). Most denials or repudiations of service will not likely give rise to advertising injury and personal injury (discussed below). It also seems unlikely that a denial- or repudiation-of-service would actually destroy or physically injure third-party data or computer hardware. The more likely claim in the context of a denial or repudiation of service would

appear to be one for lost profits as a result of the thirdparty's inability to conduct business through the insured's computer systems.

Although we are unaware of any cases considering this question, there are strong arguments supporting insurance coverage for such claims under the second "prong" of the definition of property damage contained in the CGL: loss of use of tangible property that is not physically injured. For such "property damage," CGL policies apply to the third party's claim for lost profits or other intangible losses.<sup>67</sup> When the insured has created a Market Maker site serving as an exchange among numerous buyers and sellers, for example, a third-party might advance the claim that it lost profits because of its inability to utilize its own computer systems to enter into transactions with others at the site. The Market Maker example can be analogized to the well-known loss-ofuse hypothetical involving a cul de sac on which many merchants maintain storefronts but suffer a loss of business because their customers cannot reach them due to a buckled crane or a collapsed tree blocking the cul de sac entrance; there, the CGL policy provides coverage to the tree or crane owner against claims of lost profits asserted by the storeowners arising out of the loss of use of the physical storefronts. In the same way, where there is a denial or repudiation of service, in the event the insured is found liable to the plaintiff, there should be coverage for loss of use of the third-party computer systems (and consequently claims of lost profits and the like) just as when the proverbial crane blocks the cul de sac. Although the Market Maker e-commerce model may provide the easiest analogy supporting coverage, there is no reason that the same rationale in appropriate circumstances would not extend to the hub-and-spoke and point-to-point e-commerce models.

Insurers may need some suasion before they willingly provide coverage for denial or repudiation of service as "property damage" under traditional CGL policies. Accordingly, policyholders relying on the traditional CGL product for such coverage should anticipate transaction costs associated with obtaining insurer performance, including substantial litigation costs in high-dollar cases.<sup>68</sup>

With the exception of the issue of denial or repudiation of service, the more significant liability exposures of e-commerce businesses appear to arise not from physical property damage but more likely from intellectual-property infringement and other causes of action for legal liability that do not envision conventional "property damage" at all. Consequently, the personal-injury and advertising-injury coverage provisions are probably of more relevance to e-commerce transactions.

The personal- and advertising-injury provisions appear to afford expansive coverage to e-commerce companies for certain injuries to intangible interests, such as: defamation, invasions of privacy, and copyright infringement. Some courts have held that there is coverage under the "advertising injury" provisions for other claims of infringement of intellectual property<sup>69</sup> such as

trademark and trade-dress infringement, <sup>70</sup> misappropriation of trade secrets, <sup>71</sup> and, in some circumstances, patent infringement and antitrust claims. <sup>72</sup> Courts applying earlier policy language that included the offenses of "unfair competition" and "piracy" held in favor of coverage for these same types of claims. <sup>73</sup> Carriers have, however, vigorously contested coverage for these types of claims under the advertising-injury provisions, with some degree of success. <sup>74</sup>

Some carriers may seek to deny coverage for an ecommerce-related claim on the ground that all web activity constitutes the "business" of publishing, broadcasting or advertising: this arguably would preclude all coverage because the personal-injury coverage does not apply to injuries caused by the insured's acts of advertising, publishing, broadcasting, or telecasting and advertising-injury coverage does not apply when the insured is in the business of advertising, publishing, broadcasting or telecasting.75 Even if insurers do not adopt this dubious position,76 they may contend the advertising-injury coverage does not apply for intellectualproperty offenses like copyright and trademark infringement because making web-site content available on line does not constitute covered advertising of the insured's products, goods or services.<sup>77</sup>

#### 3. E-commerce Liability Coverage

E-commerce liability insurance policies tend to focus on two different hazards or sources of loss for third-party liability exposures: publication-related conduct, usually referred to as "media risks" in these policies, and system-related risks and failures, which we term "system risks." Some policies provide coverage for both, while a number provide only media-risks coverage.

E-commerce coverage for system risks provides protection against a company's liability that arises from the unauthorized use or unauthorized access to its computer system (including computer attacks), transmission of computer viruses, and the denial of third-party access to the insured's computer resources (whether as a result of a DDoS attack or because of an accidental repudiation of service).

Coverage for media risks provides protection against claims for defamation; infringement of copyright, title, slogan, trademark, trade name, trade dress or service name; plagiarism, piracy or misappropriation of ideas or information; and any form of invasion of the right of privacy or publicity (including false light, public disclosure of private facts, intrusion and commercial appropriation of name, persona, or likeness).

Whether these new e-commerce liability coverages provide substantially more than what is available under the CGL turns on the resolution by the courts of some basic issues. If courts ultimately determine that data constitutes tangible property that can be physically injured, as is suggested by the cases cited above, then there is substantial coverage under the CGL for injury to third-party computer systems resulting from the transmission of viruses or the insertion of malicious code into the

computer systems of transactional counterparties. Thus, should policyholders prevail in efforts to characterize data as tangible property, there may be little need for the system-risk coverage provided by new e-commerce policies. On the other hand, should courts ultimately determine that injury to data does not constitute injury to "tangible property" within the CGL, then the system-risk provisions do provide real benefits because none of the data-related risks covered under the Internet-liability policies would be (adequately) covered under the CGL.

Similarly, should data and computer systems be found to constitute "tangible property," there are substantial arguments that the traditional CGL provides coverage for denial or repudiation of service that results in the "loss of use" of a third-party's computer system or data.78 Nevertheless, CGL carriers can be expected to engage in litigation of these issues, particularly given the very large exposure that can result when a major site goes down. The new e-commerce policies, in contrast, expressly provide coverage for denial or repudiation of service as such. Thus, at the very least, they permit policyholders to reduce the substantial transaction costs they might otherwise encounter to access coverage for denial of service under traditional CGL policies. Moreover, should courts construe the CGL against coverage for denial-of-service claims, the new e-commerce policies would be the sole source of insurance recovery.

Media-liability coverage, on the other hand, is in most ways similar to the personal- and advertising-injury coverage provided under the CGL (barring the wholesale exclusion of e-commerce liability from CGL policies). To the extent that a company faces publication-related exposure from its e-commerce activities, so long as the enumerated CGL offenses correspond to the sources of possible loss, the additional coverage afforded under the new media-liability policies likely is only of marginal benefit.<sup>79</sup>

Under the e-commerce media coverage, copyright and other intellectual-property infringement appears to be covered so long as it occurs in content placed on the insured's computer system or made available over the Internet. In contrast, under the CGL, copyright infringement is covered only where the infringement occurs in the course of the insured's advertising activities. Although the precise contours of what it means to be published "in the course of" advertising has been the subject of increased litigation over the past several years, the new e-commerce, media-liability policies provide coverage for situations that will ultimately be found not to be within the course of advertising covered by CGL policies.

The new media policies also contain an affirmative grant of coverage for trademark infringement, trade name, trade dress, and service-name infringement as well as coverage for plagiarism and misappropriation of ideas. Although there are substantial arguments that many if not most of these claims are covered under traditional

CGL policies, CGL carriers continue to litigate these issues. Accordingly, new e-commerce media-liability policies may provide an extension of coverage over that offered by the current CGL form for trademark infringement and other non-copyright intellectual-property claims and, at the very least, permit insureds to avoid transaction costs associated with seeking such coverage under traditional CGL policies.

The new e-commerce liability policies exclude coverage for some of the more significant claims that e-commerce companies may face. Virtually all of the new e-commerce liability policies expressly exclude coverage for antitrust violations, patent infringement, employment practices, bodily injury and property damage.

# II. Using Insurance Products To Facilitate E-Commerce Transactions

An emerging form of insurance coverage—one that should prove valuable to companies engaged in e-commerce—is counterparty credit-risk insurance, which insures against a failure of performance by another party to a transaction. One risk participants in e-commerce face is that their transactional counterparty will fail to perform, either by failing to ship the goods requested after payment or by failing to pay for goods that have been shipped. None of the insurance products discussed above provide protection against this risk, but new products are being introduced to address this need.

Over the last several years, insurance products have been developed, principally in Europe, to address credit risk in international transactions. In an effort to reduce the financial risks inherent in short-term, open-account transactions common in international commerce, many European companies have sought out insurance coverage for counterparty credit risk for both individual transactions and across their whole portfolios, and supporting banks and financial institutions providing accounts-receivable financing may require such credit insurance. This type of counterparty credit insurance appears to becoming more available in the United States for domestic transactions.<sup>80</sup>

For companies engaged in e-commerce, AIG and Dunn & Bradstreet have recently teamed up to offer credit-risk protection through a joint venture named Avantrust.81 Through Avantrust these companies will offer a suite of services geared to helping businesses obtain more information about their transactional counterparties and to protect the business against counterparty credit risks. The joint venture provides authentication and verification services to help mitigate the risk of fraudulent or unauthorized transactions, protection for sellers of products or services against payment risks on a portfolio basis, and insurance for buyers for delivery-related risks.82 While the Avantrust program has yet to be road tested significantly, programs of this type surely will help to grease the wheels of e-commerce by spreading the risks and reducing the cost of doing

business over the web with essentially unknown third parties.

Some of the Internet Market Maker auction sites have gone further and developed insurance products that facilitate commerce on the exchange, which these sites presumably hope to turn to competitive advantage. Through its underwriters at Lloyd's, ebay offers participants in its auction site up to \$50 of insurance on each transaction conducted through the ebay online facility.83 A more impressive exchange-insurance program is in place for the high-end Internet auction site icollector plc.84 icollector worked with e-business consultants, SafeOnLine, and certain underwriters at Lloyd's to create an insurance policy, called iGuarantee, that provides site users with up to \$50,000 of insurance against, inter alia, the risk of fraud or dishonesty by the seller, plus an additional \$500 for shipping costs on transactions made through the site.85

Although these two examples reflect that insurance coverage of this type is written on a tailored basis for particular companies, it is clear that carriers are willing to write such coverage in consultation with insureds and their e-business advisors.

#### III. Conclusion

By accepting risk transfer and spreading the costs associated with unexpected loss and liability, insurance facilitates economic growth and innovation. Yet, many of the e-commerce products currently offered do not achieve the design goals set out by one of the architects of the original comprehensive liability policy in 1941:

[Insurance] must be modified to keep pace with the changes in the business economy.... What is needed is ... [a]n insurance plan, flexible enough to follow changing and expanding hazards of business and to pick up automatically ... hazards whether or not known to exist.86

The current e-commerce products, though overlapping traditional insurance products, provide coverage expressly for certain types of losses that remain the subject of current disputes under the traditional products and apply to more activities and risks than do the traditional products. To the extent they offer new coverages, the new e-commerce policies are written on a namedperil basis, thus locking the insured into a rigid coverage scheme that may not prove sufficiently flexible to afford coverage for new risks as they develop. At the same time, many insurance companies have focused on increasing revenues by bundling consulting, computersecurity and related services as a package with insurance policies that provide limited additional coverage, thereby creating new profit centers without fulfilling their primary function: accepting significant and meaningful risk transfer.

Sellers of commodities need buyers, so insurance companies cannot be expected to offer substantial risk transfer if the market does not demand it. E-commerce

companies, therefore, need to reevaluate the role insurance can play in their strategic planning and recognize that insurance can facilitate new business opportunities. Given the infancy of these insurance products, e-commerce companies should be able to shape the insurance products that may become the "traditional" policies of the future.

E-commerce companies should engage insurers in an effort to elucidate the e-business risks for which insurance is needed and to demonstrate that there is, in fact, a premium base that will support increasingly broader coverage for known and unknown e-commerce risks. As part of that effort, companies should evaluate the coverage provided by new e-commerce policies and determine whether the premiums charged are sufficiently low to justify purchasing coverage that, perhaps more than anything else, will allow insureds to avoid having to incur litigation and transaction costs associated with accessing coverage for e-commerce losses under traditional products.

By working together, insurers and insureds can mutually seize the opportunities presented by e-commerce and together profit. This rosy picture requires a steadfastness on the part of the insurers not only to bear the financial consequences as e-commerce and Internet-related losses come to roost, but also to innovate by coming to market with products that add to the value chain in e-commerce transactions.

#### **Notes**

- <sup>1</sup> Margret Johnston, Web Attacks Were No Pearl Harbor, IDG News Service (Feb. 22, 2000), available at http://www.idg.net/idgns/2000/02/22/HackAttacksWereNoPearlHarbor.shtml (last modified Feb. 22, 2000) (copy on file with authors).
- <sup>2</sup> Jason Meserve, *People Around the World Bitten by Love Bug*, Network World (May 8, 2000), *available at* http://www.nwfusion.com/archive/2000/95707\_05-08-2000.html (last modified May 8, 2000) (on file with authors).
- <sup>3</sup> Bernhard Warner, Cybersquatters Face Olympic-Sized Lawsuit, The Industry Standard (July 12, 2000), available at http://www.nwfusion.com/news/2000/0712olympic.html (last modified July 12, 2000) (on file with authors).
- <sup>4</sup> John Fontana, *Denial-of-Service Attack Cripples Microsoft for Second Day*, Network World Fusion (Jan. 25, 2001), *available at* http://www.nwfusion.com/news/2001/0125mshacked.html (last modified Jan. 25, 2001) (on file with authors).
- <sup>5</sup> Kournikova Virus Slams U.S., Europe, Misses Asia, CNN.com (Feb. 13, 2000), at http://www.cnn.com/2001/TECH/internet/02/13/anna.worm/index.html (last modified Feb. 13, 2001) (on file with authors).
- <sup>6</sup> Sarah Veysey, *Dotcoms unaware of risks: Survey*, Business Insurance, Jan. 29, 2001, at 15.
- <sup>7</sup> The full survey results are available in .pdf format at http://www.stpaul.com/www-cyberrisk-survey/content/index.htm (on file with authors).
- <sup>8</sup> These transaction costs include the cost of providing notice to the insurance company of incurred losses or alleged liabilities. See Marc S. Mayerson, Perfecting and Pursuing Liability Insurance Coverage: A Primer For Policyholders on Complying with Notice Obligations, 32 Tort & Ins. L.J. 1003 (1997); Edward J. Beder et al., It is a Mistake to View Insurance Policies as Self-Executing, Nat'l L.J.,

- Nov. 4, 1994, at B5-B6. Unfortunately, complex or large-dollar insurance claims can lead to litigation of the same type. See generally Marc S. Mayerson, Stephen A. Klein & Donald R. McMinn, Pretrial Scheduling and Pretrial Orders, in Law and Practice of Insurance Coverage Litigation § 20.1 (West Group & ABA 2000); Marc S. Mayerson, Managing Complex Insurance Coverage Disputes, 32 Tort & Ins. L.J. 53 (1996). Certainly not all complex or large-dollar insurance claims require litigation, but the claim-adjustment and settlement process itself can be unexpectedly complex, protracted and, unfortunately, costly. See generally Marc S. Mayerson, Settlement of Complex Liability Coverage Disputes, 33 Tort & Ins. L.J. 783 (1998).
- <sup>9</sup> See generally Paul D. Winston, Seeing Insurance as Capital Rather Than Cost, Business Insurance, Nov. 27, 2000, at 3 (discussing this characterization by Erwin Zimmerman, Divisional Chief Executive of Swiss Re New Markets at the World Captive and Alternative Risk Financing Forum held in Palm Beach Gardens, Florida on November 12–15, 2000). This characterization assumes promptness of and openness to payment by the insurer. Compare E.R. Squibb & Sons v. Lloyd's & Cos., 241 F.3d 154 (2d Cir. 2001) (eighteen years after litigation commenced, awarding Squibb \$36+ million and limited prejudgment interest against Lloyd's underwriter for Squibb's DES product-liability claims).
- The insurance industry has long trumpeted this important societal role. In fact, one of the moving forces behind the development of the standard-form comprehensive general liability policy, Elmer Sawyer, explained in 1943:

With increased use of credit came a greater reliance upon liability insurance as a stabilizing factor, and uninsured liability exposure was inconsistent with credit stabilization. [L]iability insurance as it had been written must be modified to keep pace with the changes in the business economy... [A]n insurance plan, flexible enough to follow changing and expanding hazards of business and to pick up automatically liability hazards whether or not known to exist in the insured's business was badly needed if liability insurance was to do its part in the expanding business economy.

- Elmer W. Sawyer, Comprehensive Liability Insurance at 19, 114 (1943), quoted in Marc S. Mayerson, Affording Coverage for 'Gradual' Property Damage Under Standard Liability Insurance Policies: A History, Coverage, Sept.-Oct. 1998, at 3 n.8.
- <sup>11</sup> See, e.g., Russ Banham, Hazards of the Deal, CFO May 2000 at 91 (discussing how insurance against environmental exposures has been used to facilitate mergers and acquisitions).
- <sup>12</sup> Errors and omissions ("E&O") policies provide specialized liability coverage for particular professional activities. E&O policies are available for engineers and designers as well as for data-processing operations. To the extent that an e-commerce company is offering professional engineering or design advice or is intensively involved in data-processing the company should consider purchasing specialized errors-and-omissions insurance coverage.
- One recent case has held that corporations may not indemnify officers and directors for amounts paid to settle derivative suits. See TLC Beatrice Int'l Holdings, Inc. v. CIGNA Ins. Co., No. 97-Civ. 8589 (MBM), 1999 WL 33454 (S.D.N.Y. Jan. 27, 1999). Under TLC Beatrice, in certain circumstances insurance may be the only mechanism available to protect officers and directors against shareholder claims.
- In recent years, companies increasingly have purchased "employment practices liability insurance" policies (and related "EPLI" coverage extensions, principally to D&O policies), which protect against financial loss from employment-law claims by the company's own employees.
- <sup>15</sup> The simplest B2B business model is the point-to-point integration in which a single link joins a single supplier and a single customer; in other words, it is a direct, unitary connection between a business and its customer, and a single supplier or customer could

- have multiple point-to-point connections to various counterparties. In the mid-1990s many companies began to develop these direct computer connections between their counterparties to facilitate more direct and more efficient communications (often called Electronic Data Interchange or "EDI"). See Benchmarking Partners, Building Business Value Through B2B Integration 2 (May 2000), available at http://www.webmethods.com/whitepaper\_select/1,1332,20121.00.html (site registration required, white paper listed on index as Benchmarking Partners Business Value White Paper) (on file with authors).
- <sup>16</sup> Under this model, a single supplier becomes a hub for a number of customers and that supplier's products (and web sites) reach a number of companies. *Id.* at 2-3.
- <sup>17</sup> In this model, a company hosts or sponsors a web site or portal in which many suppliers and many customers function as a market place or exchange. These exchanges may be industry specific (e.g. chemical exchanges) or handle a cross section of products from multiple industries. *Id.* at 3.
- <sup>18</sup> Credit card numbers may not provide any real information about the counterparty. For example, American Express and Discover have recently begun to offer pseudo-credit cards with numbers good only for a single transaction and which do not identify the user to the seller.
- <sup>19</sup> Where the product or service can be delivered via the Internet, the counterparties may not even know each other's physical business addresses.
- Like credit cards, IP addresses may be "spoofed" by sophisticated Internet users. In fact, services such as Anonymizer (http://www.anonymizer.com) make it possible for even unsophisticated users to hide their IP address
- <sup>21</sup> Perhaps the currently best-known example of Internet extortion is the case of CD Universe. On January 10, 2000, eUniverse, the owner of the on-line retailer CD Universe, reported that an 18-year-old Russian national going by the handle Maxus had stolen customers credit-card numbers from its web site and threatened to post those numbers to the web if he was not paid \$100,000 in ransom. When eUniverse refused to pay, Maxus posted at least 25,000 of the stolen card numbers on the web. *See Data Thief Blackmails e-tailer*, ZDNet News (Jan. 10, 2000), *at* http://www.zdnet.com/zdnn/stories/news/0,4586,2419750,00.html (on file with authors).
- <sup>22</sup> On-line privacy is an area of growing concern to consumers and legislators, which fosters an atmosphere that increases the likelihood of claims concerning privacy interests, whether or not such claims are meritorious. Surveillance of the Internet-usage practices of consumers through the use of "web bugs" and the trading of consumer information by e-commerce companies, including medical information, has become big business and raised concerns. On March 1, 2001, Congress began hearings on "Privacy in the Commercial World" with an eye toward developing legislation to govern the use of private consumer information. See Stefanie Olson, Congress Examines Hot-Button Net Privacy Issue, C/Net News.Com (March 1, 2001), at, http://www.news.enet.com/news/0-1005-200-4995918.html (on file with authors). Such legislation is supported by the Federal Trade Commission, see FTC Recommends Congressional Action to Protect Consumer Privacy Online (May 22, 2000) (FTC news release), at http://www.ftc.gov/opa/2000/05/ privacy2k.htm, and by some online privacy advocacy groups such as the Electronic Privacy Information Center. See Privacy in the Commercial World: Hearing Before the House Comm. on Energy and Commerce, Subcommittee on Commerce, Trade and Consumer Protection, 107th Cong. (2001) (statement of Marc Rotenberg, Executive Director, Electronic Privacy Information Center), available at http://www.epic.org/privacy/testinomy\_0301.html.
- <sup>23</sup> As a consequence of an e-commerce risk causing substantial loss to the company, shareholders may seek to bring suit for mismanagement against a company's directors and officers. Under the well-

known *Caremark* ruling of then-Chancellor Allen of the Delaware Chancery Court, "a director's obligation includes a duty to attempt in good faith to assure that a corporate information and reporting system, which the board concludes is adequate, exists, and that failure to do so under some circumstances may, in theory at least, render a director liable for losses caused by non-compliance with applicable legal standards." *In re Caremark Int'l Inc. Derivative Litig.*, 698 A.2d 959, 970 (Del. Ch. 1996).

After discovery of circumstances that could lead to future claims, a company should consider providing the current D&O carrier with "Notice of Circumstances" discovered in the policy period that may lead to those future claims, which locks in coverage under the existing policy for claims that might arise in the future. See Beder, supranote 8, at B4 - B6 (addressing notice-of-circumstances provisions under D&O policies); see also generally Marc S. Mayerson, Insurance Recovery for Year 2000 Losses, 1 Andrews Year 2000 Law Bull., at 7-8 (June 1998).

- <sup>24</sup> Most standard-form policies are drafted by the Insurance Services Organization ("ISO") for use by insurance companies.
- <sup>25</sup> The full list excludes loss caused by operation of law, earth movement, governmental action, nuclear hazard, utility services (including power failure), war and military action, groundwater or floods, power spikes, bursting pipes, leakage of water from pipes, explosion of steam boilers and mechanical breakdown.
- <sup>26</sup> The Broad form contains the same exclusions as the Basic form except that it deletes the exclusion for pipe leakage.
- <sup>27</sup> The all-risk form contains the same exclusions as does Broad form coverage.
- <sup>28</sup> Covered Property does not include:

The cost to research, replace or restore the information on valuable papers and records, including those which exist on electronic or magnetic media, except as provided in the coverage extensions.

- <sup>29</sup> Carriers may offer Electronic Data Processing policies or coverage extensions, which provide similar benefit to the related coverage components of some e-commerce policies. These policies cover computer equipment and software, data, and media. However, these policies generally cover only repair and replacement of equipment and software or data. They usually provide coverage for, *inter alia*, damage caused by computer viruses, although such coverage may be limited by exclusions for viruses implanted by management personnel or through contaminated software. *See* Michael Schrachner, *Damage From Computer Virus Insurable*, Business Insurance, July 24, 1989, at 16.
- Journal of the new "Electronic Data Processing" ("EDP") coverage, offered either as an "extended" coverage on their standard-form property policy or through a stand-alone product, data is recognized as insurable "property." There is no standard EDP policy form, however, so whether the coverage provided is sufficient to protect a company's data assets depends upon the terms of the particular policy form used. In fact, most of the new "e-commerce" property policies discussed below appear to be based on EDP policies. Accordingly, the questions that policyholders should consider when purchasing these newer policies, particularly issues of loss valuation, are equally applicable to EDP policies.
- <sup>31</sup> See generally Prudential—LMI Commercial Ins. v. Superior Court, 51 Cal. 3d 674, 798 P.2d 1230, 274 Cal. Rptr. 387 (1990) (indicating that third party and first party cases generally should not be used in the other context); Garvey v. State Farm Fire & Cas. Co., 48 Cal. 3d 395, 770 P.2d 704, 257 Cal. Rptr. 292 (1989) (indicating that it is appropriate to reconcile first-party and third-party cases where possible to do so).
- 32 469 N.W.2d 735 (Minn. Ct. App. 1991). Cf. Magnetic Data, Inc. ν. St. Paul Fire & Marine Ins. Co., 442 N.W.2d 153, 156 (Minn. 1989) (expressly refusing to rule on the question of whether data constitute "tangible property" within the meaning of liability policies). Insurers often cite two cases in support of their argument that

data do not constitute "tangible property" in the third-party context: St. Paul Fire & Marine Ins. Co. v. National Computer Sys., Inc., 490 N.W.2d 626, 631 (Minn. Ct. App. 1989) (holding that theft of information contained in binders did not constitute "property damage" where binders were not physically injured); Seagate Tech., Inc. v. St. Paul Fire & Marine Ins. Co., 11 F. Supp. 2d 1150 (N.D. Cal. 1998) (incorporation of insured's defective disk drives in computers manufactured by a third-party did not cause injury to third-party property within the coverage of CGL). Those authorities are unavailing, however. Seagate holds that mere incorporation of a defective product into a larger system does not constitute "property damage" to the system in the absence of physical damage; it has no relevance to the question whether data constitutes insurable "property." National Computer Systems held that the loss of exclusive control over trade-secret information did not constitute property damage; it similarly has no bearing on the question whether data constitutes "property."

- <sup>33</sup> Retail Sys., Inc., 469 N.W.2d at 737. There should be little doubt that the cost of replacement media is covered under the policy. See Metalmasters v. Liberty Mut. Ins. Co., 461 N.W.2d 496, 502 (Minn. Ct. App. 1990).
- <sup>34</sup> Courts have found that data contributes "tangible" property in other contexts as well. *See e.g., MAI Sys. Corp. v. Peak Computer, Inc.*, 991 F.2d 511 (9th Cir. 1993)(indicating "tangibility" of data under Copyright Act).
- 35 No. 99-185 TUC ACM, 2000 WL 726789 (D. Ariz. Apr. 18, 2000).
- <sup>36</sup> *Id.* at \*2.
- 37 Id.
- <sup>38</sup> *Id.* at \*3.
- <sup>39</sup> *Id.* at \*2-3.
- <sup>40</sup> Methods for valuing the worth of a user base, the R&D investment in software, and "knowledge capital" are being developed in connection with corporate-reporting requirements. *See generally* Don Steinberg, *Money from Nothing*, Smart Business (April 2001) at 70.
- <sup>41</sup> ISO is considering modifying the traditional property insurance form to significantly restrict, if not eliminate entirely, coverage for e-commerce activities. *See The Property Industry Eyes the Horizon for a "Cyber-Storm"*, NAC Reinsurance Corporation Liability Bulletin, Issue 2000-1. Any future changes to the ISO property form would not affect coverage that is currently in place. Moreover, it will probably be some time before any proposed changes to the policies actually appear in policies issued by insurers. Nevertheless, it is important that policyholders be aware that the industry appears to be moving toward expressly excluding coverage for e-commerce activities from its traditional mainline products.
- <sup>42</sup> Consequently, if a company already has EDP coverage it should review that coverage to determine the extent of its applicability to ecommerce activity.
- <sup>43</sup> It is not always easy to locate the applicable valuation provisions. They may be subsumed within the definition of "loss" or placed in a specific section of the policy dealing with valuation or with events following loss.
- <sup>44</sup> Some states require the insurer to pay for the insured's litigation costs in successful property claims. Where the property claim is settled short of final judgment, the insured's litigation costs are one more item that is the subject of the give and take of negotiation.
- <sup>45</sup> Policyholders should also be aware that insurance companies may cite the existence of e-commerce policies, the purchase of an e-commerce policy, or even the contemplation of the purchase of an e-commerce policy as evidencing that "e-commerce risks" are not covered under traditional insurance products. The courts routinely rejected the same style of argument when advanced in connection with CGL policies with pollution exclusions and Environmental Impairment Liability (EIL) policies. See New Castle County v. Hart-

- ford Acc. & Indem. Co., 673 F. Supp. 1359, 1363 (D. Del. 1987); cf. Kitsap County v. Allstate Ins. Co., 964 P.2d 1173, 1180 (Was. 1998) (nothing precludes a single loss from being covered under both the CGL and Personal Injury Liability (PIL) coverage parts).
- <sup>46</sup> The "period of restoration" is defined as that period of time between the time that direct physical loss resulting in business interruption is suffered and the date upon which business can be resumed either at the prior location or at a new location.
- There is a supplemental form of coverage called "contingent business interruption," which covers loss arising from the insured-company's dependency on others such as suppliers for continued operations. Particularly considering just-in-time inventory systems and more generally the process-integration opportunities of e-commerce, companies need to evaluate their exposure to loss because of external dependencies (with suppliers and customers). Contingent Business Interruption as usually offered is limited in the amount of coverage and the requirement that a covered physical cause be the source of loss. Trade-Disruption Insurance, a new form of coverage, may be better suited to pick up "dependency risks" from e-commerce activities, though this coverage is limited and expensive. See generally, Phil Zinkewicz, Trade Disruption Insurance, Rough Notes (April 1999).
- <sup>48</sup> "Operations" is defined as "your business activities occurring at the described premises."
- <sup>49</sup> 893 F. Supp. 987 (D. Kan. 1995), *aff'd*, 89 F.3d 850 (10th Cir. 1996).
- 50 Id. at 991.
- <sup>51</sup> Id. See also Royal Indem. Ins. Co. v. Mikob Prop., 940 F. Supp. 155 (S.D. Tex. 1996) (no coverage where fire destroyed only one of three apartment buildings and other two remained inhabitable); Quality Oilfield Prod. v. Michigan Mut. Ins. Co., 971 S.W.2d 635 (Tex. Ct. App. 1998) (loss of data and engineering drawings in flood did not trigger coverage where work continued).
- 52 The courts have embraced the natural reading of the policy language as affording coverage for all the insured's loss following damage to property, including the effect on the business's net income from any consequent curtailment in operations. See generally Maher v. Continental Cas. Co., 76 F.3d 535, 539 n.1 (4th Cir. 1996) ("a policyholder may be compensated for lost income, regardless of whether the business continued to operate at a reduced level immediately following the covered loss"); American Med. Imaging Corp. v. St. Paul Fire & Marine Ins. Co., 949 F.2d 690, 693 (3d Cir. 1991) (other policy language requiring mitigation by the insured of business interruptions "necessarily implies that the obligation to indemnify can arise while business continues, albeit at a less than normal level"); Georgia-Pacific Corp. v. Allianz Ins. Co., 977 F.2d 459 (8th Cir. 1992) (permitting recovery of extra expenses incurred despite the fact that only one of four paper-making machines at facility was shut down by loss); Linnton Plywood Assoc. v. Protection Mut. Ins. Co., 760 F. Supp. 170 (D. Ore. 1991) (finding coverage where fire protection system in one of two sawmills failed, requiring the shut down of one saw mill).
- 53 Bodily injury is defined as "bodily injury, sickness or disease sustained by a person, including death resulting from any of these at any time."
- 54 Property damage is defined as "physical injury to tangible property or loss of use of tangible property that is not physically injured."
- 55 Occurrence is defined as "an accident, including continuous or repeated exposure to substantially the same general harmful conditions."
- <sup>56</sup> Some liability policies are written on a "claims made" basis. Under a claims-made policy, the policy in effect at the time the third-party asserts a claim against the insured is the policy that responds, not the policy in effect at the time of the injury, as is the case for "occurrence" based policies. *See generally* Edward J. Beder, *Trig*-

- gering Coverage for Related Claims Under Claims-Made Policies, Coverage, Jan./Feb. 1999, at 19.
- <sup>57</sup> Within each of the two general categories of covered injury are a list of "offenses" that must occur before coverage is triggered. These offenses are set forth in the definition of the phrases "advertising injury" and "personal injury."
- 58 710 F.2d 1288 (7th Cir. 1983).
- 59 Id. at 1291.
- See generally Marc S. Mayerson, Insurance Recovery of Litigation Costs: A Primer for Policyholders and Their Counsel, 30 Tort & Ins. L.J. 997 (1995).
- 61 See id. at 1000-01.
- 62 /1
- 63 If a web site is dispensing professional advice, such as medical advice, it is likely that the insurer would require the company to purchase professional errors and omissions insurance coverage and exclude bodily injuries arising out of that advice from the CGL.
- <sup>64</sup> Conceptual and semantic confusion was introduced by the insurers by their defining "property damage" to mean
- (1) physical injury to tangible property, including loss of use thereof, and
- (2) loss of use of tangible property that is not physically injured. The slipperiness of loss-of-use coverage was hardly clarified by the introduction in the mid-1980's of the term "Impaired Property," which addresses one type of non-physical injury property-damage claims stemming from the rendering inoperative or less effective a larger machine or system due to the failure of the insured's component to perform, if the machine or system is not physically injured and can be restored to full use by the insured's substituting a working component for the one that failed.
- 65 See generally Wagner v. Milwaukee Mut. Ins. Co. 145 Wis. 2d 609, 427 N.W.2d 854 (Wis. Ct. App. 1988) (inability to utilize a sewer safely and in compliance with governing regulations constituted covered loss-of-use property damage), review denied, 147 Wis. 2d 889, 436 N.W.2d 30 (1988), overruled on other grounds by, Just v. Land Reclamation, Ltd., 157 Wis. 2d 507, 456 N.W.2d. 570 (Wis. 1990)
- 66 See Retail Sys., Inc., 469 N.W.2d at 735 (holding that a claim seeking damages for loss of a computer tape was asserting liability because of "physical injury or destruction of tangible property"); see also notes 30-35, supra, and accompanying text. ISO has recently issued a circular proposing that the definition of property damage in the standard CGL policy be modified to expressly state that electronic data does not constitute "tangible property." See D. Hughes, The CGL and Cyber-Risk: ISO & the Internet, Andrews Insurance Coverage Litigation Report, Vol. 11 at 594 (2001). This modification, which may be a reaction to the decision in Ingram Micro, appears to preclude coverage for data loss under the standard CGL in its entirety. ISO apparently will also draft a separate coverage form that will provide coverage for data loss in the presence of injury to "tangible" property. Under the proposed new regime, data loss in the absence of injury to hardware would not appear to be covered under either form. Although these changes will not affect coverage currently in place and are unlikely to appear in policies issued by carriers in the near future (the proposed modifications must be approved by state insurance commissions and then carriers must elect to modify their own standard forms), the proposed revisions do indicate that the insurance industry is moving to eliminate coverage for data loss from the standard form CGL. Paradoxically, current policyholders may be able to argue that these changes evidence the ambiguity in the current policy forms regarding whether data constitutes tangible property that can be physi-
- <sup>67</sup> See Gibson & Assoc. v. Home Ins. Co., 966 F. Supp. 468, 477 (N.D. Tex. 1997) (carrier had duty to defend claims that contractor

must indemnify city for suits by shop owners seeking to recover lost profits resulting from street closure); Truitt Oil & Gas Co. v. Ranger Ins. Co., 498 S.E.2d 572, 573-74 (Ga. App. 1998) (lost profits resulting from "loss of use" of business premises due to road closure are covered under CGL absent applicable exclusion); Federated Mut. Ins. Co. v. Concrete Units, Inc., 363 N.W.2d 751, 756 (Minn. 1985) (lost profits and increased storage costs caused by loss of use of grain elevator were covered); Sola Basic Indus. v. United States Fid. & Guar. Co., 280 N.W.2d 211, 217 (Wis. 1979) (coverage for increased operating expenses where defective transformer caused company to be unable to use its electric furnaces); Western Cas. & Sur. Co. v. Budrus, 332 N.W.2d 837, 839-40 (Wis. App. 1983) (where mislabeling of seed resulted in loss of use of 40 acres of land, there was coverage for farmer's claims against seed manufacturer seeking to recover for "expenses, crop loss, and production losses"); Geurin Contr. v. Bituminous Cas. Corp., 636 S.W. 2d 638, 641 (Ark. App. 1982) (coverage existed for claims brought by store owner against contractor who had closed road in front of store resulting in

68 One argument carriers are likely to advance in opposition to denial- or repudiation-of-service claims is that they are for breach of express or implied contracts entered into between site providers and site users. Insurers regularly argue talismanically that there is no coverage under the CGL for damages arising out of a breach of contract, but the courts just as regularly reject that contention as such and instead focus on whether the insured is liable for covered bodily injury, property damage, personal injury, or advertising injury, and not the legal theory or basis for recovery, ex contractu or ex delicto. See Vandenberg v. Superior Court, 21 Cal. 4th 815, 982 P.2d 229, 88 Cal. Rptr. 2d 366 (1999) (the fact that a suit is brought for breach of contract does not per se preclude coverage; coverage turns on the nature of the property, the injury, and the risk that caused the injury in the light of the policy provisions).

<sup>69</sup> ISO's recent proposed modification of the CGL policy would expressly exclude coverage for copyright, patent, trademark or trade dress infringement, although an exception to the exclusion would restore coverage for copyright, trade dress or slogan infringement claims arising out of the insured's "advertisement," which is defined as a "notice that is broadcast to the general public or specific market segment about your goods, products or services for the purpose of attracting customers or supporters." See Hughes, supra, note 67 at 596. As noted above, this exclusion does not affect CGL coverage that is currently in place and will probably not appear in issued policies for some time. Should the exclusion be incorporated into CGL policies, coverage for infringement of intellectual property would be more limited than that provided under the current CGL.

<sup>10</sup> See, e.g., Lebas Fashion Imports v. ITT Hartford Ins. Group, 59 Cal. Rptr. 2d 36 (Cal. Ct. App. 1997) (carrier had duty to defend trademark infringement claims because they were potentially within offense of misappropriation of advertising ideas or style of doing business); P.J. Noyes Co. v. American Motorists Ins. Co., 855 F. Supp. 492, 494-495 (D.N.H. 1994) (suit for trademark infringement fell within the offense of "misappropriation of advertising ideas or style of doing business"); Dogloo, Inc. v. Northern Ins. Co., 907 F. Supp. 1383 (C.D. Cal. 1995) (claims of trade dress infringement could fall within offense of "misappropriation," triggering duty to defend); American Empl. Ins. Co. v. DeLorme Pub. Co., 39 F. Supp. 2d 64 (D. Me. 1999) (carrier had duty to defend trademark and trade dress infringement claims under offense of "misappropriation"); Bay Elec. Supply 1: Travelers Lloyds Ins. Co., 61 F. Supp. 2d 611 (S.D. Tex. 1999) (carrier had duty to defend trademark and trade dress infringement claims under offense of "misappropriation").

<sup>51</sup> See, e.g., Sentex Sys., Inc. v. Hartford Acc. & Indem. Co., 93 F.3d 578 (9th Cir. 1996) (finding claims of theft of customer lists, marketing techniques, and confidential sales information constituted offense of "misappropriation of advertising ideas").

" See Everett Assoc. v. Transcontinental Ins. Co., 57 F. Supp. 2d

874 (N.D. Cal. 1999) (claims that insured "offered to sell" a patented invention were potentially covered under offense of misappropriation and infringement, thus carrier had a duty to defend); see also Ethicon, Inc. v. Aetna Cas. & Sur. Co., 737 F. Supp. 1320 (S.D.N.Y. 1990) (antitrust claims were covered under CGL policy where they were based upon malicious prosecution activities, or covered offense); Federal Ins. Co. v. Stroh Brewing Co., 127 F.3d 563, 566 (7th Cir. 1997) (holding that coverage for "discrimination" includes price-discrimination claims under Robinson-Patman Act).

<sup>13</sup> See also United States Fid. & Guar. Co. v. Star Tech., 935 F. Supp. 1110 (D. Or. 1996) (coverage for patent infringement claims under offense of "piracy"); Union Ins. Co. v. Land & Sky, Inc., 247 Neb. 696, 529 N.W.2d 773 (1995) (same); Union Ins. Co. v. Knife Co., 897 F. Supp. 1213 (W.D. Ark. 1995) (trademark infringement falls within the offense of "unfair competition"); Atlantic Mut. Ins. Co. v. Brotech Corp., 857 F. Supp. 423 (E.D. Pa. 1994), aff'd, 60 F.3d 813 (3d Cir. 1995) (trademark infringement covered as piracy); Rymal v. Woodcock, 896 F. Supp. 637 (W.D. La. 1995) (duty to defend misappropriation of trade secret claims because they potentially fall within offenses of piracy, unfair competition and "infringement of . . . title").

<sup>74</sup> Advance Watch Co. v. Kemper Nat'l Ins. Co., 99 F.3d 795 (6th Cir. 1996) (no coverage for trademark and trade-dress infringement); ShoLodge, Inc. v. Travelers Indem. Co., 168 F.3d 256 (6th Cir. 1999) (same); Callas Enter. v. Travelers Indem. Co., 193 F.3d 952 (8th Cir. 1999) (same); Frog Switch & Mfg. v. Travelers Ins. Co., 193 F.3d 742 (3d Cir. 1999) (same); Heritage Mut. Ins. Co. v. Advanced Polymer Tech., 97 F. Supp. 2d 913 (S.D. Ind. 2000) (rejecting coverage for trademark and patent infringement); Iolab Corp. v. Seaboard Sur. Co., 15 F.3d 1500, 1505 (9th Cir. 1994) (no coverage for patent infringement).

<sup>75</sup> Of course, that the insurance companies seek to deny coverage in this roundabout way—since they cannot point to any express e-commerce exclusion—undermines the persuasiveness of their argument that this policy exclusion is clear, conspicuous, and understandable, which is the burden the insurers' must bear to sustain coverage defeating construction.

<sup>76</sup> ISO recently proposed modifications to the CGL policy that would make it clear that owners of websites are not in the business of advertising except to the extent they design web-site content or provide ordinary access or are service providers ("ISPs"). See Hughes, supra, note 67 at 596.

The modifications to the CGL recently proposed by ISO would expressly recognize that "advertisements" on the Internet are covered under the advertising injury provisions. The modification also states, however, that only the part of a web-site that "is about your goods, products or services for the purposes of attracting coverage or supporters is considered an advertisement." See Hughes, supra, note 67, at 595. Thus, this modification both affirms that Internet activities are covered advertising then apparently seeks to narrow the Internet activities that are covered to those web pages that are actually hawking goods, products or services. Should this proposed modification be approved by state insurance commissions and adopted by carriers, we would expect to see significant disputes over which pages of an insured's web-site are covered and which are not.

- <sup>78</sup> See, supra, note 68 and accompanying text.
- Media related exposures in more traditional media have been covered under separate Media Liability Coverage, which may also apply to Internet-based media exposures.
- 80 See A New Role For Credit Insurance, (Jan. 2001), at http://www.pwcglobal.com/extweb/newcoweb.nsf/docid/FC36E0AEF074CFD5852569CA007575B5.
- 81 See D & B and AIG Offer Innovative New Program to Build Trust in B2B E-commerce Transactions, (October 31, 2001), at http://www.dandb.com/english/dandbnews/article3.htm. A summary of the

- Avantrust program can be found at http://www.avantrust.com.
- Avantrust also offers quality-assurance services to help ensure that products purchased over the web conform to the promises of the seller.
- 83 See http://pages.ebay.com/help/community/insurance.html.
- See Highest Insurance Coverage for e-commerce Transactions, Flash Commerce, (Nov. 30, 1999), at http://flashcommerce.com/articles/99/11/30/161406670.shtml.
- <sup>85</sup> Although the insurance provided by these programs is structured so as to appear to be covering the counterparty credit risk of the site participants, these policies provide the additional benefit of insulating the exchange sponsor, for instance ebay or icollector, from liability claims arising out of the failure of performance of exchange participants.
- 86 Sawyer, supra, note 10 at 19, 114.