

## Insuring electronic data processing equipment (hardware) and media (software)

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Article abstract

Le matériel électronique est extrêmement fragile. Et à cause de cela, il doit être assuré contre les risques les plus inattendus. Dans son article, notre collaborateur étudie les solutions actuelles, tout en se réservant le droit de rechercher des formules correspondant aux besoins de l'assuré lorsque le marché le permet. Tout n'est pas assurable. Il n'y a pas de garantie globale sans aucune exception ou limitation. C'est cela que doit comprendre l'assuré s'il ne veut pas être désappointé au moment du règlement d'un sinistre. Aussi y a-t-il dans la recherche d'une solution une collaboration essentielle entre celui qui, dans un espace limité, a un risque étendu et son conseiller.

L'assuré fera bien non seulement d'avoir recours à l'assurance, mais aussi aux modes de prévention et de duplication des textes qui sont mis à sa disposition. Si l'informatique et l'ordinateur en particulier sont d'extraordinaires instruments de travail, ils présentent des faiblesses. Dans un article très curieux, Mlle Cinthia E. Huston a donné à son travail un titre qui est à la fois titre et objet. Le voici : « Computer crime in the future : evolutionary and revolutionary risks ». Or, d'après elle, c'est en lui que l'ordinateur doit trouver les solutions de sécurité nécessaires. Pour l'instant, l'informatique poussée très loin ne les a pas. Aussi faut-il y pourvoir avant un sinistre. L'assurance est là pour apporter quelques solutions, mais non toutes les solutions. A.

## Insuring electronic data processing equipment (hardware) and media (software)

by

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<sup>(1)</sup> Gérard Parizeau, Ltd. is a member of the Sodarcam Group.

<sup>(2)</sup> Paru dans *The future of risk, a series of papers by the Risk Studies Foundation.*

**I — Introduction**

Electronic Data Processing Equipment is now a vital part of efficient business operations. Computer equipment are used not only for data processing but also for running operations, measurements, etc. It is difficult to get along without them.

Not only the equipment is expensive, but also media-tapes, cards, disks, etc. - especially when information has been placed on them.

For their own protection and to meet insurance requirements, most users of computers take major precautions against loss. These range from isolation of the system in a complete fire-resistant, specially air conditioned area, to off premises storage of duplicates of as much of the data processing material as is practical.

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Fortunately, most users of EDP equipment have recognized the need of insurance protection because EDP equipment represents a large investment used in a small area. Damage can occur quickly and without warning, and loss can be large.

**II — Necessity of proper insurance coverage**

Protection needed in the data processing area cannot be obtained through the customary form of insurance as the standard fire policy does not cover:

- Accidental breakage,
- Collapse of rood,
- Water damage,
- Lost while in transit,
- Vibrations,
- Earthquake,
- Flood,
- Electrical injury,
- Burglary and/or theft.

The limitations and exclusions are virtually endless in this particular field.

Standard Boiler and Machinery coverage is also not appropriate, as descriptions of insured objects would not normally include EDP equipment or such equipment is totally excluded from coverage.



### III — Coverage available

248 Several insurance companies offer data processing policies that insure generally against all risks of direct physical loss or damage to EDP equipment<sup>(1)</sup>. Such policies do not normally exclude earthquake, flood, burglary, theft, unexplained or mysterious disappearance.

EDP policy is designed to provide coverage in each of the four primary categories:

- 1 – Data processing equipment,
- 2 – Data, computer programs and media,
- 3 – Extra expense,
- 4 – Business interruption.

As supplementary coverage, insurance is also available for valuable papers and accounts receivable.

1) **Data Processing Equipment** covers equipment and component parts related to the processing unit, known as *hardware*. Equipment may be owned, rented or leased or otherwise coming within the legal responsibility of the insured. The coverage includes equipment and transit from one location to another. Air conditioning equipment used exclusively in data processing operation may also be insured.

Coverage for breakdown losses is usually provided, subject to a deductible amount; although the hazard is still excluded in some EDP policies. When applicable, this coverage is for direct

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<sup>(1)</sup> EDP policies may vary between insurers, however, so much so that insureds will do well to verify their policies.

physical loss or damage to EDP equipment inside the building and within 100 feet of it caused by:

- mechanical or machinery breakdown;
- short circuit, blow out, or other electrical damage to electrical equipment, apparatus, or devices, including wiring.

Additional EDP equipment acquired is automatically covered for an amount up to 20% of the largest location limit, not exceeding \$250,000. The insured must report these additional items within 60 days.

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Insured equipment is usually covered automatically, when moved to a new location for up to \$250,000 at any one location. These new locations must be reported within 60 days.

If the air conditioning system that services the insured's EDP equipment is damaged by a covered peril, loss to EDP equipment caused by corrosion, rust or changes in humidity or temperature is included.

Physical loss or damage to EDP equipment that results during processing operations or while being worked on as services is also covered.

Coverage is provided for loss or damage that results from errors in design or use of faulty materials in the development, manufacture or installation of the equipment.

Losses may be paid on an actual cash value of the property at the time of loss or on a replacement cost basis, according to insuring clause.

Coinsurance of 80%, 90% or 100% is optional, but a blanket amount of insurance over several locations is recommended where computers are installed.



Exclusions may be summarized as follows:

- a) Dishonest acts: fraud, dishonesty or crimes committed by the insured, partners, officers, directors or trustees of the

insured. However, dishonest acts of employees are covered.

- b) Wear and tear, e.g. wear and tear, gradual deterioration, depreciation or vermin.
- c) Delay: delay or loss of market.
- d) War risks: war, invasion, insurrection, rebellion, revolution, civil war or the seizing of power.
- e) Government seizure: property seized or destroyed under Customs regulations, or confiscated by any government, and also illegal transportation or trade.
- f) Nuclear risks: nuclear reaction, nuclear radiation or radioactive contamination. But not direct loss caused by fire resulting from nuclear reaction, nuclear radiation or radioactive contamination.

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## 2) EDP Data and Media

Media means material on which data are recorded, such as magnetic tapes, disks, packs, paper tapes, and cards related to the processing units. Data is the information store on the Media. It includes facts concepts or instructions converted to a form usable in data processing operations. Data includes computer programs and other *software*, but not *hardware*. Data and media cover may be purchased separately or on combined basis.

### Extent of coverage

- a) Data and Media coverage does not insure against loss to original documents or source material until source material is converted into computer programs or Media.
- b) Coverage is on an all risks basis.
- c) There is no coinsurance clause under this insuring agreement.
- d) Duplicate and back-up data and media stored at a separate location are usually covered for up to 10% not exceeding \$25,000 of the combined data and media limits at

the insured's primary EDP center. Larger limits may be also insured.

- e) The Insured has the option of specifically scheduling items or groups by types and establishing a value per unit or blanketing all into a total single value.

Three breakdown coverages are provided:

- i) direct physical loss or damage to data or media caused when EDP equipment mechanically breaks down or malfunctions while data is being run through the system covered.
- ii) direct physical loss or damage to the data and media caused by electrical or magnetic injury, disturbance or erasure of electronic recordings.
- iii) Damage to data and media caused by corrosion, rust or changes in humidity or temperature due to the air conditioning system being damaged.

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This coverage is subject to the same exclusions that apply to the equipment.



### **Media and data valuation**

Media is valued on actual cost of repairing or replacing the property with material of the same kind or quality. Data is valued on the actual cost of reproducing it unless a specific amount per article is listed.

The determination of media values requires a great deal of judgment in arriving at what can be called adequate limits. It entails a careful and complete analysis of all functions to arrive at a realistic value. There are no prescribed guidelines however, some techniques have been employed to arrive at the correct dollar amount of insurance. (See EDP media estimate formula in addenda).



**III — *Extra Expense coverage***

Coverage to continue normal operation of the business in the event of damage to or destruction of the EDP Equipment, data or media, the building, or the air conditioning or electrical system on the premises. These expenses are over and above the normal cost to conduct EDP operations had no damage occurred, such as expenses to rent or used other property or facilities, hiring, training and paying manual labor, moving personnel, supplies and equipment, etc.

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Coverage is on an all risks basis.

There is Coinsurance clause under this coverage.

Recovery is on an actual loss sustained basis and is limited to the time required with due diligence and dispatch to repair or replace damaged data processing equipment, data, media, air conditioning or electrical systems, or the building housing your data processing operations.

Insurance is also provided if access to the premises in which the insured property is located is prohibited by order of civil authority because of damage to adjacent property. Coverage is for two weeks only.

Two breakdown coverages are provided:

- a) Extra expenses in continuing data processing operations when the EDP equipment, data, or media inside the building is damaged by mechanical or machinery breakdown or short circuit, blow out, or other electrical damage to equipment, apparatus, or devices including wiring.
- b) Extra expenses resulting from damage by either of the above causes to air conditioning or electrical systems in an insured building or within 100 feet.

Extra expenses that are due to physical loss or damage to EDP equipment caused by errors in design, or by use of faulty materials in the development, manufacture, or installation of equipment, are covered.



This insurance is subject to the same exclusions that apply to the equipment and media and also the following losses:

- a) Income: Loss of income or other indirect loss.
- b) Property damage.
- c) Repair: Cost to repair or replace any damaged physical property.
- d) Programming errors.
- e) Construction or zoning laws.
- f) Strikes: Loss caused by strikers who interfere with the insured's efforts to fix the damage or resume normal business operations.
- g) Leases: Loss caused when a lease, license or contract, or order is suspended, cancelled, or lapses beyond the time it takes to restore normal business operations.
- h) Loss of documents.

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It is difficult to determine the amount of extra expense insurance required, since it is not based on any set formula. An analysis must be made of normal departmental costs, availability and costs of backup facilities, increased personnel costs, increased transmission costs and the probable maximum period of interruption. (See EDP extra expense estimate formula in addenda).

#### **IV — *Business Interruption Insurance***

Covers monetary loss due to a total or partial closing of business operations due to the direct physical loss to the EDP equipment, data or media, the building, or the air conditioning or electrical systems on the premises.

Unless you are doing data processing work for other organizations, you probably do not require the coverage. However, if production is geared to computerized systems, you may want to insure against that potential loss of production.

Business interruption coverage can be written on a valued basis, providing a stated dollar amount recovery for each day of total interruption or a prorated amount for partial interruption.

Extra expenses covered under the business interruption section are collectible to the extent that the business interruption loss is reduced.

Business interruption is not a substitute for Extra expenses insurance. Under Extra expense insurance the insureds are reimbursed for all incurred expenses necessary to continue EDP operations without having to prove a resulting increase in income or that the business interruption loss is actually reduced.

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There is no Coinsurance clause under this coverage.

Business Interruption Breakdown coverages are identical to those contained in the Extra expense coverage.

Exclusions contained in this coverage agreement are the same as described in the Extra expense coverage with the exception of the income, property damage and repairs losses.



Some large industrial risks insurers offer the option of writing a policy combining extra expense insurance and business interruption insurance under one amount. The measure of recovery shall be the extra expense necessarily incurred to actually perform the operations normally performed by the EDP system. And, the actual loss sustained by the insured due to the necessary interruption of production due to the non-availability of the EDP equipment, damage to the building housing such a property, the air conditioning system for such equipment, or the electrical system supplying such equipment.

There is no coinsurance clause applicable to these combined coverages (extra expense and business interruption) therefore, this is most advantageous in determining the amount of insurance and also in covering the insurance needs of the insured.

#### **V — Valuable Papers - Accounts Receivable**

Because valuable papers and accounts receivable are tied closely to the media used in data processing equipment, it is possi-

ble to cover these in the EDP policy by inserting the appropriate insuring agreements.

Source material, records or other data from which media is developed, is also vulnerable to loss. Those materials may represent years of work. Even after this source material has been converted, the risk of its loss or destruction may represent a substantial exposure. For example, source data may be used to prepare magnetic tapes which have limited use; while the source material itself may be necessary for future use. One insured, for instance, carries \$2,000,000 on valuable papers (source material) and only \$500,000 on data processing media, but each case has to be studied individually according to the insured's needs.

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Valuable papers agreement protects against all risk of direct physical loss or damage to valuable papers such as books, maps, films, tapes, data processing materials, drawings, deeds, etc. No coinsurance is applicable. Measure of recovery is either the actual cash value of those papers at the time of the loss or the cost of repairing or replacing them with items of similar kind and quality, whichever is less. It is a complement to the data and media coverage.

**VI — *Accounts receivable coverage* insures against financial loss caused by uncollectible accounts resulting from destruction of records.**

**Conclusion:**

Utilization of EDP systems involves a large investment in terms of time and money. If damaged by fire or other casualty a costly replacement will be necessary and important operations and activities will come to a halt for a long time. Fortunately most of the entire risk of loss can be insured.

**VII — Addenda**

**1) Electronic data processing media estimate<sup>(1)</sup>**

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- A. This enclosure is intended to provide you with guidance in preparing an estimate of the cost to restore your EDP Media to the state existing prior to loss.
- B. For the purposes of this questionnaire, Media shall be defined as all forms of converted data and/or programs and/or instruction vehicles employed in your data processing operations, e.g., magnetic tapes, punch cards, data cells, disks, drums, etc. Source materials not converted into some form of data processing record should not be included in your estimate.
- C. In estimating your Media values, the following factors should be included:
  - 1. The total blank value of Media prior to processing. This figure should be adjusted to include an estimate for media materials expected to be utilized in the next twelve (12) months.
  - 2. The total cost of reconstructing Media (cost of programs should be kept separate from other data if possible) to include consideration of the following:
    - a. Programmer's time.
    - b. Key punch time.
    - c. Card to tape, drum, disk etc. time.
    - d. Machine time.
  - 3. Additional manual procedures necessary to produce input for the reconstruction of the destroyed media but not previously incurred in your operations, such as batch preparation.
  - 4. Research and clerical procedures necessary to obtain data lost because of the destruction of backup materials or source documents.
  - 5. If compatible equipment is not available, so that the equipment to be used will take a greater number of running hours to produce the same result as your present equipment, multiply the estimated number of additional hours by the "prime time" rate.
- D. The totals of paragraph C-1 through C-5 represents an estimate of your maximum Media values.

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<sup>(1)</sup> Estimate formula prepared by Chubb & Son.

**2) Electronic data processing extra expense estimate**

A. This enclosure is intended to provide you with guidance in preparing an estimate of the cost "above the normal cost" of operating your Data Processing Center which would be incurred following complete disruption of your data processing operations.

1. List the jobs that must be done and the number of machine hours for each to arrive at the total machine hours per month.

**Note:** If more than one type of equipment is used, list the hourly requirements for each separately.

2. List the name and location of facilities with whom backup contracts have been made, if none, list facilities which might be available.

3. List the prime time hourly rates and number of hours available at each location, include local and state taxes on such rentals.

**Note:** If more than one type of equipment is needed, indicate whether or not the backup locations have the dual equipment necessary, if not, show alternate locations that do have such equipment and the hourly prime time rates.

4. Multiply the totals from 1 and 3 to arrive at basic equipment expense.

**Note:** If compatible equipment is not available, so that the equipment to be used will take a greater number of running hours to produce the same result as your present equipment, multiply the estimated number of additional hours by the prime time rate and add the result to 4 to arrive at the total machine time requirements.

5. Estimate and list monthly expenses such as:

- a. Announcements - mail, radio, television, papers, etc.
- b. Transportation to back up facilities of:
  1. supplies
  2. personnel (to and from)
  3. other.
- c. Communication costs, such as telephone, telegraph, leased lines, couriers, etc.
- d. Special protective services as guards, containers for transporting vehicles, etc.
- e. Overtime or other salary adjustments for assured's own personnel.

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- f. All costs of additional employees for temporary conversion to manual systems necessary for current operations including:
  - 1. Advertising or employment agency fees.
  - 2. Salaries.
  - 3. Equipment rentals.
- g. If not included in hourly rate under 3 above also list costs at temporary location for:
  - 1. Rent or rehabilitation costs.
  - 2. Light, heat, power, janitorial devices.
  - 3. Cost of additional insurance such as fire legal liability if required by processor.
  - 4. Wages for employees of processing facility.
- h. Total monthly expenses.
- i. Add 10% for contingencies.
- j. Total.

**Important:**

- K. Deduct expenses which discontinue at original location due to loss.

**Note:** These costs will be items such as heat, light, power, air conditioning, protective services, rental of leased equipment but only if contract for same contains an abatement clause. The result is amount of net monthly extra expense and should be multiplied by number of months necessary to place the assured's own equipment back on line and debugged, e.g. restored to the same condition that existed before the loss.