

INFORMATION SYSTEMS PLANNING REPORT  
INSURANCE SECTOR

NOVEMBER 1986

# THE HISTORY OF THE

REIGN OF

CHARLES THE FIRST

BY

JOHN BURNET

OF

SCOTLAND

IN

SEVEN VOLUMES

THE SECOND

VOLUME

CONTAINING

THE

REIGN OF

CHARLES THE FIRST

BY

JOHN BURNET

OF

SCOTLAND

INFORMATION SYSTEMS PLANNING REPORT  
INSURANCE SECTOR

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INFORMATION SYSTEMS PLANNING REPORT  
INSURANCE SECTOR

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## I MAJOR ISSUES

### A. DRIVING FORCES

- The property/casualty segment of the insurance industry continues to face the problems caused by pricing policies of the past decade, current interest rates, and large settlements that have been awarded to claimants. This segment also faces:
  - Increased competition, including captive and self-insurers.
  - Elimination of or changes in agent relationships.
  - Setting of liability limits.
  - A push for cost reduction through automation.
  
- The life insurance segment has been impacted by diversification into financial areas and the resulting advent of interest-sensitive/variable life policies. This segment faces additional concerns which include the monitoring of investment rates in order to offer attractive and competitive products, a change from a product orientation to a customer orientation, and provision of information systems that will aid agents in constructing policies that fulfill individual customer needs.





- The health insurance segment is pressured by employers/customers and the federal government to contain costs while it faces increased competition from health maintenance organizations (HMOs), self-insurers (usually large corporations), and hospital or physician cooperatives. This segment continues its efforts to reduce costs through automation and to improve the efficiency of existing systems.
- The effects of the Gramm-Rudman law are not yet known. However, its implementation will impact the insurance industry.
- Exhibit I-1 summarizes the driving forces of the insurance sector.

#### B. ISSUES AND OBJECTIVES

- Large underwriting losses and severe price competition in the property and casualty segment have spurred cost reduction through automation. New or improved claims processing systems are actively pursued by several respondents in efforts to reduce one of the most significant cost areas in the insurance sector.
- The entry of new competition and new product lines has changed the relationship between insurance companies and independent agents. Insurance companies rely on agents to write a high-dollar volume of premiums in order to stay competitive. In turn, agents need automation to develop premiums and policies effectively and efficiently. Several insurance companies have developed or are developing agent support software or turnkey systems for their independent agents.
- The offering of interest-sensitive insurance products has placed pressure on IS to develop systems that support the marketing, administration, and processing of these complex policies.



**EXHIBIT I-1**

**INSURANCE  
DRIVING FORCES**

- **Cost Containment**
- **New Competition**
- **Agent Relationship**
- **Interest-Sensitive Products**
- **New Legislation**



- Respondents indicated the need to become a part of the product planning cycle. Until IS does gain a role in product planning, IS must attempt to anticipate system needs of new, undeveloped product lines.
- A related concern is system capacity. A few respondents expressed long-term (two- to five-year) needs for effective capacity planning, including the management of hardware growth and compatibility of systems.
- Personnel efficiency is another issue important to respondents.
  - In response to the push to reduce costs, some respondents are providing operations staffs with education/training classes as well as productivity tools in order to shorten application delivery schedules and to use hardware optimally.
  - Although a few respondents are adding IS personnel, other respondents are attempting to handle future growth with a stable or diminishing workforce by increasing efficiency.
- Other respondents are consolidating existing information systems and making better use of existing information for improved market planning and analysis by management.
- Exhibits I-2 and I-3 summarize the key issues and objectives identified by the respondents.



**EXHIBIT I-2**

**INSURANCE  
ISSUES**

- **Reduce Costs through Automation**
- **Provide Agent Support Systems**
- **Consider Systems Flexibility/Capacity**
- **Improve Operations Staff Efficiency**
- **Improve Management Effectiveness**





**EXHIBIT I-3**

**INSURANCE  
OBJECTIVES**

- **Improve Claims Processing Systems to Reduce the Cost per Claim**
- **Build Infrastructure to Support Agent Systems**
- **Develop On-Line Systems for New Interest-Sensitive Life Policy Calculations**
- **Implement Upgraded or New Hardware**
- **Provide Education/Training and Tools for Operations Staff**
- **Consolidate Information Systems for Market Planning and Analysis**



### C. IMPACT OF NEW TECHNOLOGY

- Respondents indicated that new telecommunications technology will have a heavy impact on the IS department. Most respondents' present needs are not met with the products currently available.
  - Dissatisfaction with current products is exemplified by the complexity of PC-to-mainframe links and the ineffectiveness of local area networks.
  
- New technology will have a future impact on the following specific areas:
  - Communications between:
    - Home office and field sales force.
    - Remote offices/multiple locations.
    - Insurance company and its independent agents.
  
- Although the insurance industry was one of the first to use computer technology, it has been slow to establish data communications networks to field personnel, independent agents, and remote offices. The current low activity level in implementing telecommunications technology is due to a perception by users that existing products are unsatisfactory to meet company needs.
  
- The impact of end-user computing on the insurance industry is currently viewed as low. Some respondents ranked end-user computing as a strategic issue to be considered two to five years from now.
  
- Exhibit I-4 summarizes the areas of interest in new technology.



**EXHIBIT I-4**

**INSURANCE  
AREAS OF NEW TECHNOLOGY INTEREST**

- **Telecommunications -- Improved Products For:**
  - **Wide Area Networks**
  - **Medium Area Networks**
  - **Local Area Networks**
  
- **End-User Computing -- Long-Term Issue**



## II NEW APPLICATIONS

- In response to the necessity of reducing costs per claim, insurance companies are developing new claims systems or upgrading existing systems to improve efficiency. The highest activity in application development is in the claims processing area.
- Another application with high development activity is agent support systems. With the stronger insurance company/independent agent relationships brought about by more complex products and the tight market, insurance companies, particularly the larger ones, are developing systems that address agent productivity, prospect tracking, customer history, and product tracking.
- There is moderate interest but low activity in development of customer data base systems. The insurance industry, however, is becoming more customer-oriented. This is reflected at the IS level by an interest in systems that allow single-file access to all of a customer's policies, rather than access to the customer's policy within each product line file.
- The majority of systems development activity uses internal staff. In several cases, respondents indicated purchase of external software packages with any customization performed by internal staff.
- Exhibit II-1 lists application areas in which respondents have development activity.



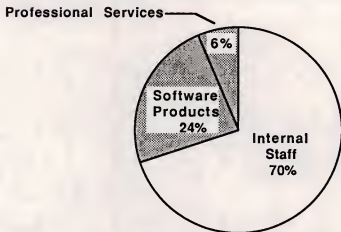


EXHIBIT II-1

**INSURANCE  
NEW APPLICATIONS**

- Claims Processing
- Agent Support
- Policy Maintenance/Administration
- Casualty Rating
- Reinsurance Accounting
- Customer Data Base

**Source of Development  
(All New Major Applications)**



■ External Sources

□ Internal Sources

Cost Range: \$20K - \$7,000K

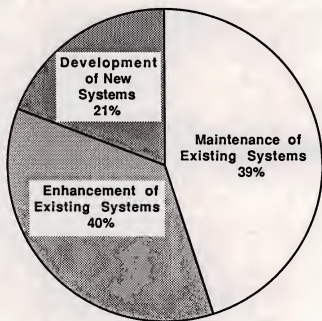


- INPUT's surveys indicate that, on average, 40% of the IS applications development staff is assigned to the enhancement of existing systems and 39% is assigned to the maintenance of existing systems. The remaining 21% is assigned to the development of new systems.
- Exhibit II-2 pictures the assignment of staff.



EXHIBIT II-2

**INSURANCE  
ASSIGNMENT OF APPLICATIONS  
DEVELOPMENT STAFF**





### III BUDGET ANALYSIS

- The insurance sector's IS department budgets are not heavily dependent on revenue or profits primarily because of the critical nature of projects to the long-term success of the company.
- Although insurance companies' IS budgets are growing at a slower rate than the previous year's, the 7.3% growth rate indicates the realization that spending now for automation will assist significantly with long-term cost reduction. Insurance companies cannot afford to lose market share or further depress profitability by deferring necessary but costly projects.
- Exhibit III-1 shows the 1986 budget distribution and projects the percentage growth of budget categories in 1987.
  - The largest budget growth areas include microcomputers and professional services.
  - The smallest budget growth areas include external software, other hardware, and mainframe processors.
  - Of the respondents that included voice communications in their IS budgets, voice communications represents 10.8% of their total IS budget.





## EXHIBIT III-1

**1986 BUDGET DISTRIBUTION AND  
1986/1987 CHANGES IN THE INSURANCE SECTOR**

<b>BUDGET CATEGORY</b>	<b>1986 PERCENT OF I.S. BUDGET</b>	<b>1986-1987 EXPECTED BUDGET GROWTH</b>
<b>Personnel Salaries and Fringes</b>	<b>32.8%</b>	<b>7.8%</b>
<b>Mainframe Processors</b>	<b>13.9%</b>	<b>4.5%</b>
<b>Minicomputers</b>	<b>2.2%</b>	<b>6.4%</b>
<b>Microcomputers</b>	<b>3.2%</b>	<b>20.6%</b>
<b>Mass Storage Devices</b>	<b>4.4%</b>	<b>6.9%</b>
<b>Other Hardware</b>	<b>8.4%</b>	<b>3.7%</b>
<b>Total Hardware</b>	<b>32.1%</b>	<b>4.1%</b>
<b>Data Communications</b>	<b>13.1%</b>	<b>10.0%</b>
<b>Voice Communications</b>	<b>6.6%</b>	<b>10.8%</b>
<b>Total Communications</b>	<b>19.7%</b>	<b>10.2%</b>
<b>Professional Services</b>	<b>1.2%</b>	<b>23.9%</b>
<b>Outside Processing Services</b>	<b>1.3%</b>	<b>9.1%</b>
<b>External Software</b>	<b>5.0%</b>	<b>2.8%</b>
<b>Software Maintenance</b>	<b>1.6%</b>	<b>8.3%</b>
<b>Hardware Maintenance</b>	<b>4.3%</b>	<b>10.0%</b>
<b>Other</b>	<b>2.0%</b>	<b>12.6%</b>
<b>Total</b>	<b>100%</b>	<b>7.3%</b>



- Comparing 1986 with 1985, the budget line for personnel expenditures has declined as a percent of the total IS budget (43.9% to 32.8%), while the total hardware budget line has increased (32.1% versus 22.8%). This reflects the industry's motivation to automate insurance functions by increasing the capacity of the hardware and anticipating the increased productivity of personnel.
- Approximately 91% of all respondents indicated that their 1987 IS budgets would increase over 1986.
  - Factors contributing to increases in the IS budgets include (in order of most frequently mentioned factors):
    - New or upgraded hardware.
    - Introduction of new products.
    - Personnel.
    - Inflation.
    - General business expansion.
  - Factors contributing to decreases in IS budgets include:
    - Purchase of hardware in previous years—capacity is sufficient.
    - Staff reductions.

