Executive Overview

Chargeback Systems

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CHARGEBACK SYSTEMS

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To Our Clients:

This Summary is an excerpt from a full research report, Chargeback Systems, issued as part of INPUT's Information Services Program (ISP). A complete description of the program is provided at the end of this Executive Overview.

If you have questions or comments about this report, please call INPUT at (415) 961-3300 and ask for the Client Hotline.

Abstract

There is a great deal of debate about the "best" way to charge for usage of Information System resources. Every possible approach seems to have been tried somewhere, and every approach has both ardent supporters and vehement critics.

No single approach is best for all companies. Before implementing any form of chargeback system, an organization should develop a clear set of objectives for the system. Particular emphasis should be placed on the interface between chargeback and other administrative processes such as strategic planning, equipment/facilities planning, capital budgeting, and accounting. Once this framework has been established, the organization can develop a chargeback system which provides useful information for management and is acceptable to those being charged.

This report presents a model for analyzing chargeback system alternatives, uses this model to describe how a number of organizations have implemented chargeback systems, and provides a set of recommendations for chargeback system design.

Overview Contents

Executive Summary

This Executive Summary is designed to help the reader quickly review the conclusions and recommendations that are detailed in this report. Each key point is summarized in an exhibit, with accompanying explanations.

Most firms have some form of chargeback system for IS resources, and many feel that their present systems are inadequate. In most cases, the problems can be traced to a lack of clear management objectives and systems that are resource-oriented rather than user output-oriented.

The Executive Summary includes a list of "The 10 Commandments of IS Chargeback." But all of these commandments boil down to one key point: The successful chargeback system must have a clear set of objectives with demonstrated top management support.

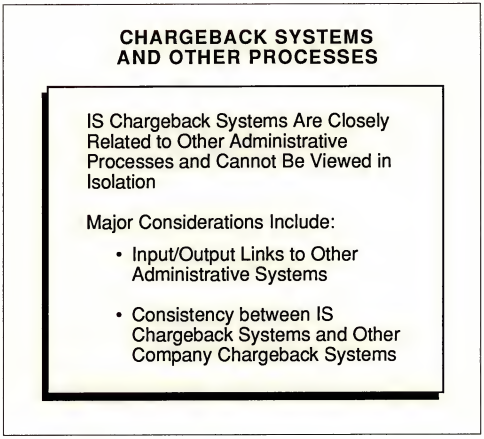
A

Chargeback Systems and Other Administrative Processes

As shown in Exhibit II-1, one of the most common problems surrounding any discussion of IS chargeback systems is that they tend to be viewed in isolation from the rest of the organization's systems and processes. There are two key factors to consider in assessing how an IS chargeback system relates to the rest of the organization:

- What systems or processes provide input to or receive output from the chargeback system.
- How does the IS chargeback system compare to the other internal chargeback mechanisms used by the company.

EXHIBIT II-1



Internal systems/processes which commonly provide input to IS chargeback systems include:

- Strategic planning.
- Equipment/facilities planning.
- Capital budgeting.
- Operational budgeting.

Chargeback system output usually goes to one or more accounting systems, which provide information to the user. In addition, there is often a feedback from the accounting system output to the previously mentioned planning and budgeting processes.

If an IS chargeback system is to be successful and well accepted, it is important that it operates with the same basic objectives, policies, and process as the chargeback systems used for other services (e.g., graphic arts, printing, legal, transportation).

B

Importance of Chargeback Systems Objectives

It is critical that management establish and communicate specific objectives for all chargeback systems, but especially so for IS. Lacking clear and well-understood objectives, it is impossible to establish consistent policies and processes for chargeback. Lack of consistency is perhaps the most frequent complaint about the way chargeback systems are implemented:

- Between the way different resources are billed.
- Between the way different users (departments/divisions) are billed.
- Between corporate budgeting/accounting conventions and the rules of specific chargeback systems.

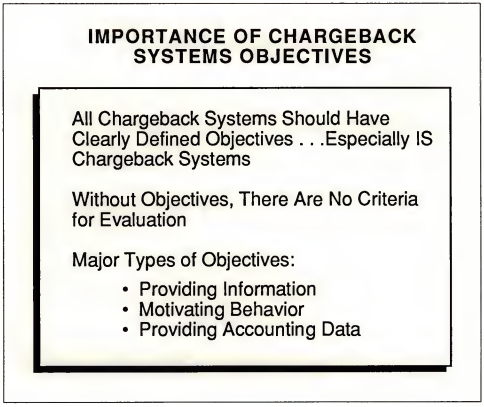
It is also impossible for management to evaluate the success of a chargeback system or respond to criticisms about such systems without specific criteria for evaluation. Well-communicated system objectives provide these criteria. There are three major categories of objectives associated with chargeback systems:

- Providing information.
- Motivating behavior.
- Providing accounting data.

The most critical objectives are those associated with management responsibility accounting. Where IS charges form a significant part of a manager's costs, and the manager is evaluated on expense control, there is great opportunity for criticism and dissent.

Exhibit II-2 outlines these points.

EXHIBIT II-2



C

Industry/Organization Structure

The design of an IS chargeback system is strongly influenced by:

- The industry(ies) in which the firm operates.
- The firm's organizational structure.
- The manner in which the firm's IS functions are integrated with its basic business.

Some industries, for example insurance and aerospace, are subject to governmental regulations regarding internal cost allocations, product pricing, etc. All chargeback systems must satisfy these regulatory criteria.

Complex organizational structures require complex chargeback systems. In addition to the regulated industries noted above, the firms with the oldest, most well established chargeback systems are generally those which have a divisional or matrix structure, product or brand managers, or are multi-industry.

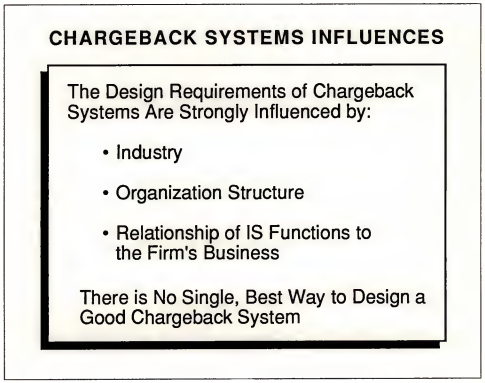
Complex organizations which are also subject to governmental accounting regulations have special problems. The way costs are calculated for

regulatory purposes may be misleading if the same figures are used in management responsibility reporting. In such cases, it is always wise to have a separate, parallel accounting system to support decision-making and responsibility reporting.

Companies with information systems which are highly specialized, centrally managed, and critical to their delivery systems (e.g., airlines) often do not have chargeback systems. In such cases, IS resources are not a discretionary expenditure for individual line managers and costs are controlled centrally. Such companies are often organized on a functional basis and do not feel a need for complex cost/profit center accounting.

Exhibit II-3 outlines chargeback system influences.

EXHIBIT II-3



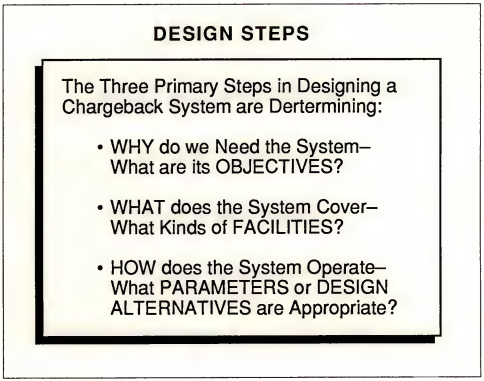
D

The Steps in Designing a Chargeback System

There are three steps in the design of a good chargeback system. They are best approached by answering the simple questions; why, what, and how? The system's design objectives are the statement of why. As shown in Exhibit II-4, the list of facilities to be charged back consititutes the what; and the selection of the design parameters or alternatives consititutes the how.

It is critical that the answers to these questions are logically consistent –that the parameters chosen support the specified objectives of the system rather than defeating them. An example of this kind of inconsistency is the situation where one of the system objectives is to use the chargeback cost data in evaluating the performance of a line manager. If the system design requires that the total costs of all IS resources be fully allocated at year end, based on share of overall usage, the line manager has no way of knowing or controlling his costs. Since his costs are largely determined by the extent of other people's usage, such data cannot be fairly used to hold him accountable.

EXHIBIT II-4



E

Types of Chargeback Systems Objectives

Chargeback system objectives may be organized into three major categories, with several subcategories, as shown in Exhibit II-5:

- Informational.
  - *Awareness* of resource utilization/cost.
  - Capture of data for *planning/budgeting* purposes.
- Motivational.
  - Encouraging *experimentation* and use of new technologies.
  - Changing patterns of resource usage (timing, on-line vs. batch, etc.).

- Accounting.
  - *Financial* data for legal and tax books.
  - *Management* Responsibility reporting.

Informational objectives are generally less formal than those associated with accounting. Management Responsibility (MR) accounting shows the operating results achieved by individual managers and their decisions. Motivational objectives are nearly always associated with an MR accounting system. And, of course, a good MR accounting system is a prerequisite for using chargeback costs as a motivator. Exhibit II-5 outlines these points.

EXHIBIT II-5

CATEGORIES OF OBJECTIVES

Chargeback System Objectives may be Organized Into 3 Major Categories:

- Informational
  - Awareness of Resource Utilization/Cost
  - Capture of Data for Planning/Budgeting
- Motivational
  - Encouraging Experimentation
  - Changing Patterns of Resource Usage
- Accounting
  - Financial Data for Legal and Tax Books
  - Management Responsibility Reporting

F

IS Facilities Commonly Charged Back

The kinds of facilities generally associated with IS chargeback (shown in Exhibit II-6) include:

- Central data processing facilities–these are facilities running specific production applications, whether at a divisional/functional or corporate level, and utility operations such as Information Centers, timesharing systems, etc.

- Local/distributed data processing facilities (e.g., local printers, terminals, departmental processors, PCs, etc.).
- Word processing facilities.
- Voice and data telecommunications.
- Systems development (major new systems), and maintenance/enhancement of systems.

Most organizations do not have all of these types of facilities reporting to a single person, such as the head of IS. Nor do they have a single chargeback system that incorporates all of these types of facilities. In many cases, the same system or type of data may be used for several of these facility types. For example, development and maintenance programming are often not separated, nor is there always a separation between data and voice communications. The method of chargeback often depends on the technologies employed.

EXHIBIT II-6

G

System Design Parameters

The selection of parameters for the ten key design variables included in INPUT's model of chargeback systems allows for a wide variety of alternative designs for a chargeback system. The choice of parameters must be guided by the firm's objectives for the system; the more objectives established, the more significant and difficult making the choices will become. The ten key design variables and associated potential parameters are described briefly below and listed in Exhibit II-7:

1. *Cost Categories*–Categories of cost to be allocated by the system, such as direct, overhead, administrative, etc.

2. *Chargeback Basis*–Fixed unit costs based on budgeted expenditures or variable unit costs based on actual IS expenditures.

3. *Costing Scheme*–Costs based on utility concept of equal costs for equal service, or actual costs factoring in different rates for different geographic locations, etc.

4. *Pricing Scheme*–Demand-level pricing where rates vary by time of day, etc., or nondifferentiated price structures.

5. *Allocation Approach*–Costs distributed by fixed allocation ratios or based on usage.

6. *Reporting Scheme*–Frequency and nature of cost reporting to user community.

7. *Adjustment Scheme*–Year-end adjustments based on actual IS costs, or actual variances absorbed by IS.

8. *Business Structure*–Selection of profit or cost center orientation for the IS business activity.

9. *Resource Substitutability*–Determination of whether outside resources can be reasonably substituted for internal services and the definition of which resources qualify.

10. *Outside Resource Policy*–Determination of an appropriate policy consistent with other corporate policies for the use of outside resources where feasible.

EXHIBIT II-7

BASIC DESIGN PARAMETERS

TEN BASIC DESIGN VARIABLES:

1. Cost Categories
2. Chargeback Basis (budgeted or actual cost)
3. Costing Scheme (actual vs. utility basis)
4. Pricing Scheme
5. Allocation Approach
6. Reporting Scheme
7. Adjustment Scheme
8. Business Structure
9. Resource Substitutability
10. Outside Resource Policy

H

The "Ten Commandments" of IS Chargeback

An effective IS chargeback system requires careful planning and implementation. Although specific details will vary from firm to firm, the "Ten Commandments," shown in Exhibit II-8, should always be observed:

1. *Have specific and well-communicated managerial objectives.* These are a necessity to insure effective understanding, support, and use of any chargeback system.

2. *Focus primarily on Management Responsibility reporting.* The objective of chargeback should be to influence managerial behaiior. Accounting data, while necessary, has little inherent value–its *use* is what is important.

3. *Provide a separate, parallel accounting system where necessary for legal/regulatory purposes.*
   Where the firm's objectives are not supported by the kinds of data required for legal/regulatory accounting purposes, separate systems should be developed for managerial and legal/regulatory reporting.

4. *Provide a consistent approach to billing for all categories of IS resources while recognizing the differences inherent in different facilities.*
   Objectives and system design parameters for *all* categories of IS *and other* resources should be similar, to minimize the problems of inconsistent policy and data interpretation. This is especially important in making chargeback data an effective tool for influencing managerial behavior.

5. *Bill on the basis of (fixed) budgeted unit costs rather than (variable) actual operating costs.*
   Billing IS services on the basis of (fixed) budgeted unit costs rather than (variable) actual operating costs is an absolute necessity for effective managerial responsibility accounting. Where managers are not able to predict the cost consequences of their actions, they are generally unwilling to assume responsibility for these costs and will not spend much time managing these resources.

6. *Bill for user-oriented work units (transactions, reports, etc.) rather hantechnically-oriented resource units (CPU time, disk accesses, etc.) wherever possible.*
   Billing should be in user-oriented work units (transactions, reports, etc.) rather than technically-oriented resource units (CPU time, disk accesses, etc.). Users generally cannot influence the resource utilization of production applications, although they can change their use of resources in utility applications (e.g., timesharing).

   During budget and planning sessions, users should be given a rough idea of how their applications use IS resources and should consider this in establishing development tradeoffs and priorities.

7. *Get and communicate top management support for the system.*
   Top management support, effectively communicated, is clearly essential for acceptance and use of any chargeback system.

8. *Let IS management run the system. IS management should control IS chargeback, not corporate staff units.*
   Corporate accounting/planning staff generally do not understand IS technology and are not close to IS users. Staff designed/managed chargeback systems are often overly complex, unrealistic, do not provide the basis for effective Managerial Responsibility accounting, and tend to drive a wedge between IS management and the user base.

9. *Allow the IS function to be run as a business.*
   IS functions should berun in a businesslike manner, with investments, service levels, product development, knowledge of the customer, etc. being key management considerations. An ill-designed chargeback system makes this very difficult.

10. *Above all, be simple and equitable, create minimal overhead, and be consistent with both the objectives of management and the firm's other administrative processes.*
    As with any administrative process, a good IS chargeback system should support, rather than inhibit, the firm's management process.

EXHIBIT II-8

"TEN COMMANDMENTS" OF IS CHARGEBACK

1. Specific Managerial Objectives
2. Management Responsibility Reporting
3. Separate Legal/Regulatory System
4. Consistent Billing Methodology
5. Budgeted (Fixed) Unit Costs
6. User-Oriented Work Units
7. Top Management Support
8. IS Management Running the System
9. Running IS Functions as a Business
10. Simplicity, Equity, Minimal Overhead, and Consistency

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Exhibits

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INPUT's Information Systems Program (ISP) helps IS executives to meet the strategic, tactical and operational challenges faced in today's and tomorrow's information systems environment:

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	√	Government Deregulation
	√	Non-Traditional Competitors
Tactical	√	Cost Containment
	√	Information Delivery
	√	Integrating IS and Corporate Planning
Operational	√	Improving Productivity
	√	Cost Containment
	√	Improving Information Delivery

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- Top management perception of IS and organizational issues

- Impact of future technology
- IS role in end-user computing (equipment acquisition, software development, training, maintenance, security)
- New applications
- IS' corporate contribution
- Distribution of corporate computing expenses (distributed vs. central vs. end-user)
- Budget distribution (personnel, hardware, computer services, communications, software, maintenance)

INPUT's IS Industry-Sector Analysis and Forecast is the baseline of sound IS budgets and plans.

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The company carries out continuous and in-depth research. Working closely with clients on important issues, INPUT's staff members analyze and interpret the research data, then develop recommendations and innovative ideas to meet clients' needs. Clients receive reports, presentations, access to data on which analyses are based, and continuous consulting.

Many of INPUT's professional staff members have nearly 20 years of experience in their areas of specialization. Most have held senior management positions in operations, marketing, or planning. This expertise enables INPUT to supply practical solutions to complex business problems.

Formed in 1974, INPUT has become a leading international planning services firm. Clients include over 100 of the world's largest and most technially advanced companies.

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