The challenge for Information Systems and its user organizations is to accelerate toward an information leadership position, giving substance to a new corporate image and providing a sustainable edge to newly competitive marketing forces.

Strategic business advantage is attained by anticipating circumstances and being prepared to take advantage of opportunities. Opportunities are transient; they crop up as the business environment changes, opening during windows of time that close as other environmental events occur.

Enterprise-wide Information Management (EwIM) is planning, organization, implementation, and control of information resources to meet current and future strategic goals. EwIM is a set of concepts and tools that enable a manager to determine, for his/her enterprise, what can and should be done with information technology. EwIM results in the alignment of information technology with the enterprise plans and the alteration of the enterprise goals through the use of information technology.

Information resources must be blended into competitive business strategies, beginning with market understanding and then focusing on strengthening sales and distribution channels and customer ties. New information structures must reduce data redundancy while both intersystem and corporate internal communications are improved. Further integration with other business processes allows improved business operations control and increased productivity, while the use of information technology adds value to product and service offerings in the eyes of the customer.

The fully integrated system is the product of a corporate management committed to using data processing strategically. It provides aggregated data for decision making and effective resource control. Through improved operational efficiency and the use of artificial intelligence technology, it also offers force reduction opportunities.

An information architecture is the structure of an organization's computing technology. Similar in nature to telephone network and building architectures; it is the systematic organization of the basic components of information. These components are data, applications, communications, work stations, software, and hardware.

Data

A logical data structure, organized by subject matter (e.g., customers, products) is the most critical component of the information architecture. Data must be separated from applications and managed as a corporately shared resource to position the architecture for optimum flexibility and support the correlation of corporate and external data. Ideally, the user will access information based on needs and authorization without even being aware which system contains the data.

Applications

Applications collect, restructure, create, and distribute information for business use. When freed of the traditional data storage and management role by the newly defined data architecture, applications will become more stable and readily encompass entire processes. New applications can provide customer, channel and supplier interactive capabilities, effectively stimulating revenue and controlling operational costs.

Communications

The connection of computer environments should appear as a transparent information delivery network to the user, supporting integrated voice, data, text, image, and graphics capabilities.

Work Stations

The user's window for information access, work stations should support the capabilities of the information architecture, encourage paperless communication of information, and provide responsive delivery of information.
Software

Software is the programmer's and end user's tool kit to manipulate and analyze data and information. Advances in software technology will bring artificial intelligence potentials to reality in the work place, automating technical activities such as programming, engineering, and capacity planning. Ideally, consistent software capabilities in all information environments will provide understandable information in answer to questions posed in common business language.

Hardware

The underlying component supporting the rest of the architecture, hardware planning, and selection must allow for flexible, non-disruptive introduction of new technology and meet the increasing processing demands of the business at optimum cost.

Effective architecture development requires close coordination with the planning function of the business to ensure that implementation occurs in a timely fashion.