Decentralized and centralized infrastructure

Business

Infrastructure refers to both physical and organization structures required for smooth operation of a system or an organization. Infrastructures refer to the fundamental facilities serving a country as a transportation system, communication systems, schools, and power plants.

Infrastructure refers to interconnected structural elements providing a network capable of supporting an entire structure of development. Small organization may be served by a centralized Information Technology infrastructure. However, a large organization may be too complicated to be served by either centralized or decentralized infrastructure. Most information Technology organization centralizes decision rights related to infrastructure. These organizations do this with an aim of capturing the economies of scale. Centralizing the decision rights may be beneficial to a company.

However, Information Technology resources do not have to be centralized (Estache, 2007). For an organization to decide on whether to implement centralized or decentralized infrastructure, it must consider the accessibility of the IT personnel. The IT personnel are significant in the perceived responsiveness of a decentralized infrastructure. This is because when the infrastructure is decentralized, individuals may make changes that are not allowed for their respective user levels. This will result in a chaotic infrastructure and thus the resources may end up being unavailable for all users. To most users decentralized infrastructure is more appropriate for its fast responsiveness to their local needs.

However, the need for centralized infrastructure arise when organization-wide crisis develop due to incoherent system operations (Aykin, 2005).

Effective IT services should have a clear definition on what resources should or should not be centralized. The definition of centralized and decentralized resources in IT should take place at the highest possible level. An organization should try to balance between centralized and decentralized infrastructures. If an organization decides to balance between centralized and decentralized IT processes, it must ensure that the two processes are coordinated.

If the processes are not well coordinated, the organization will result in to a chaotic distributed environment (Smith, 2004).