Designs and plans network communications systems. Provides specifications and detailed schematics for network architecture. Provides specific detailed information for hardware and software selection, implementation techniques and tools for the most efficient solution to meet business needs, including present and future capacity requirements. Conducts testing of network design. Maintains technical expertise in all areas of network and computer hardware and software interconnection and interfacing, such as routers, multiplexers, firewalls, hubs, bridges, gateways, etc. Evaluates and reports on new communications technologies to enhance capabilities of the network.

Performs system and subsystem integration, technical risk assessments, technical planning, verification and validation, and supportability and effectiveness analyses of total systems throughout the system lifecycle. Analyses are performed at all levels of total system product to include: concept, design, fabrication, test, installation, operation, maintenance and disposal. Performs functional analysis, timeline analysis, detail trade studies, requirements allocation and interface definition studies to translate customer requirements into hardware and software specifications.

Discretion/Latitude

Often acts independently to uncover and resolve issues associated with the development and implementation of operational programs. Plans R and D programs and recommends technological application programs to accomplish long-range objectives. Work is checked only to the effectiveness of results obtained. typically requiring a long-term perspective.

Knowledge, Skills and Abilities

Exhibits an exceptional degree of ingenuity, creativity, and resourcefulness. Apply and/or develop highly advanced technologies, scientific principles, theories and concepts. Viewed as leading experts within the field. Establish long-range marketing plans for the organization's products and services by identifying, analyzing and developing new business opportunities. Establish customer contacts, develop proposals, and deliver marketing presentations. Maintain relationships with key decision makers.

Problem Solving

Develops information which extends knowledge in a given field. Information may form the basis of newly developed concepts, theories and products.

Impact

Designs research and develops highly advanced new applications resulting in new product/business opportunities for the company. Erroneous decisions or recommendations would have a long-term negative effect on organization's reputation and business posture. Leads development and implementation of key programs and/or processes for the organization.

Liaison

Serves as consultant to top management in long-range company planning concerning new or projected areas of technological research and advancements. Prime spokesperson on company's technical capabilities and future directions. Often instrumental in attracting and obtaining major new company business.

Minimum Education and Experience

20+ years of broad and extensive professional experience with BS in designated Engineering, Information Technology or related field or equivalent experience and/or applicable industry certifications. Employees usually have advanced degree in field of specialization.