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so that the total capacitance of a variable-capacitor section can be adjusted during alignment.

serration — 1. The sawtooth appearance of vertical and near-vertical lines in a television picture. This is caused by their starting at different points during the horizontal scan. 2. A designed irregular surface used as a reservoir to retain excess infiltrating material and/or multiple points to obtain high-current-density resistance welding or resistance brazing.

serrodyne — A frequency translator or frequency converter based on linear sawtooth modulation of phase shift or time delay. One convenient modulable device for serrodyne use is a traveling-wave tube, which provides gain as well as frequency translation.

serve — 1. With reference to cable construction, a type of separator applied directly over the conductor or conductors. The serve may consist of one or more materials such as paper, cotton, silk, nylon, or rayon. These materials may be applied spirally or laterally. 2. A filament or group of filaments, such as fibers or wires, wound around a central core.

server — 1. A computer on a network that serves as a central repository for data and programs and which can be accessed over the network by other computers, called clients. 2. A computer or processor that holds applications, files, or memory shared by users on a network. 3. A computer, or a software package, that provides a specific kind of service to allow client software to run on other computers. The term can refer to a particular piece of software, such as a WWW server, or to the machine on which the software is running. A single server could have several different server software packages running on it, thus providing many different servers to clients on the network.

server PC — Microcomputer used by a network as a source of disk drives and information.

service — 1. A function offered by some part of an open system to communicating application processes. 2. The conductors and equipment for delivering energy from the electricity supply system to the wiring system of the premises served.

serviceability — Those properties of an equipment design that facilitate service and repair in operation.

service area — 1. The area within which a navigational aid is of use. 2. The area surrounding a broadcasting station where the signal is strong enough for satisfactory reception at all times (i.e., not subject to objectionable interference or fading).

service band — The band of frequencies allocated to a class of radio service.

service channel — A band of frequencies, usually including a voice channel, utilized for maintenance and fault indication on a communication system.

service circuit — An interconnecting circuit in a switching network that may be connected to lines or trunks as required to perform various functions, such as dial pulse detection and audible ringing.

service conductors — The supply conductors that extend from the street main or from the transformers to the service equipment of the premises served.

service drop — The overhead service conductors from the last pole or other aerial support to and including the splices or taps, if any, connecting to the service-entrance conductors at the premises served.

service entrance — The conductors and equipment used for delivering energy from the utility pole to the premises.

service life — 1. The period of time during which a device is expected to perform in a satisfactory manner. 2. The length of time a primary cell or battery needs to reach a specified final electrical condition on a service test that duplicates normal usage.

service oscillator — *See* rf signal generator.

service provider — A company that provides Internet access. For end users, this service can be as simple as providing Internet e-mail accounts, access to Usenet news groups, ftp, and web browser access via the service provider's servers. A service provider can also provide a way for connecting an enterprise's LAN to the Internet, allowing an enterprise to place their own servers on the Internet.

service rating — The maximum voltage or current that a component is designed to carry continuously.

service request — 1. The appeal by a process or task for access to a system resource. 2. A notification to a system that one element wants to access a resource.

service routine — 1. In digital computer programming, a routine designed to assist in the actual operation of the computer. 2. A set of instructions to perform a programmed operation, typically in response to an interrupt.

service switch — A switch, usually in a box, for disconnecting the line voltage from the circuits it services.

service unit — In a microwave system, the equipment or facilities used for maintenance communications and transmission of fault indications.

serving — 1. Of a cable, wrapping applied around the core before a cable is leaded, or over the lead if the cable is armored. Some common materials are jute, cotton, or duct tape. 2. A wrapping of thread or yarn over a relay coil to protect it from damage.

servo — Short for servomotor. A device that contains and delivers power to move a control or controls.

servoamplifier — A servo unit in which information from a synchro is amplified to control the speed and direction of the servomotor output.

servo control — A technique by which the speed or position of a moving device is forced into conformity with a desired or standard speed or position. For example, the speed of a servo-controlled turntable is established by a precision voltage or frequency standard to which it is compared and automatically adjusted to reduce the difference to a minimum. In a servo-controlled tonearm, a small departure of the cartridge from tangency to the groove is sensed and used to activate a motor drive that moves the tonearm to minimize the error.

servo loop — In a servoamplifier, the entire closed loop formed by feedback from output to input. In a position servo, the output position is compared to a command signal at the input.

servomechanism — 1. An automatic feedback-control system in which one or more of its signals represent mechanical motion. 2. A system in which output is compared to input to control error according to desired relationship, or feedback. 3. A self-contained system (except for inputs) in which the feedback signal is subtracted from a desired value so that the difference is reduced to zero. 4. A control system that provides the following: a command instrument to control or program the final process; amplification to strengthen and modify the command signal; work instrumentation to manipulate the controlled process; and feedback provision to initiate corrective action when needed. Since feedback signals go from the controlled process back to the original command station, a servo system is said to operate closed-loop. 5. A device in a closed-cycle system that controls a process based on direct feedback from the process.

servomotor — A motor used in a servo system. Its rotation or speed (or both) are controlled by a corrective electric signal that has been amplified and fed into the motor circuit.