



ITU/T SDH Standard

Following ANSI's development of the SONET standard, the CCITT undertook to define a synchronization standard that would address interworking between European and North American transmission hierarchies. That effort culminated in 1989 with CCITT's publication of the Synchronous Digital Hierarchy (SDH) standards. Synchronous Digital Hierarchy is a world standard, and as such, SONET can be considered a subset of SDH.

Convergence of European and North American Hierarchies

SONET and SDH converge at SDH's 155 Mb/s base level, defined as STM-1 (Synchronous Transport Module – 1). The base level for SONET is STS-1 (or OC-1) and is equivalent to 51.84 Mb/s. Thus, SDH's STM-1 is equivalent to SONET's STS-3 (3 x 51.84 Mb/s = 155.5 Mb/s). Higher SDH rates of STM-4 (622 Mb/s), STM-16 (2.4 Gb/s) and STM-64 (9.9 Gb/s) have also been defined.

SDH Optical Line Rates

Synchronous Transport Level	Line Rate Mb/s
--	51.84
STM-1	155.52
STM-4	622.08
STM-16	2488.32
STM-64	9953.28

NOTE: The higher line rates are integer multiples of the base rate of 51.84 Mb/s. For example, STM-4 = 12 x 51.84 Mb/s = 622.08 Mb/s.