



The MT90868, MT90869, MT90870 and MT90871 are the industry's highest density TDM switching ICs for multi-service WAN access equipment. Able to support up to 32K backplane channels and data rates up to 32 Mb/s, the new TDM switches enable the design of high-capacity carrier class equipment that ensures high reliability, low power consumption, small footprint, competitive price-per-port and flexibility needed to scale thousands of voice and data links in a single chassis.

Complementary Products

MT9045, MT9072, MT9076, MT90503, MT92210, MT93L00, MT93L04

Flexibility

- Four-in-one switching capability increases flexibility for equipment design requirements.
- Options for blocking (MT90868, MT90870) and non-blocking switching (MT90869, MT90871).
- Per stream rate conversion and rate selection up to 32 Mbps for the MT90869 and the MT90870 and up to 16 Mbps for the MT90871.

Industry's Highest Capacity

- MT90868 High Bandwidth Switch (HBX) offers the industry's highest TDM switching capacity from backplane-to-local, providing access to 32K channels on the backplane.
- In a single device, the MT90869 flexible 16K digital switch (F16KDX) provides capacity equivalent to 12 non-blocking quad digital switches, organized in a three-stage matrix.
- MT90870 flexible 12K digital switch (F12KDX) provides twice the blocking switching capacity of its predecessor, Zarlink's MT90866.
- MT90871 flexible 8K digital switch (F8KDX) provides twice the switching capacity of the MT90826.
- Unidirectional mode increases switching capacity to 16K x 16K for the MT90869, 12K x 12K for the MT90870 and 8K x 8K for the MT90871.

Industry's Lowest Power 16K x 16K Switch

The MT90869 offers the industry's lowest power consumption with only 576 mW typical.

Key Features

- Rate conversion between backplane streams, local streams and backplane/local streams for the MT90869, MT90870 and MT90871.
- Rate conversion between backplane/local streams for the MT90868.
- Backplane switching supports diagnostic testing.

Standards Compliant

- IEEE-1149.1 (JTAG)
- ST-Bus, GCI

Customer Support

All four devices are supported with application notes, IBIS models, BSDL files and reference designs.

	High Bandwidth Switching Matrix					Rate Selection & Conversion (Mbps)		Package	In Production
	Unidirectional Switching	Backplane to Local	Local to Backplane	Local to Local	Backplane to Backplane	Local	Backplane		
						8	16, 32		
MT90868	32K x 8K	32K x 8K	8K x 32K	8K x 8K	1K x 1K	8	16, 32	466 PBGA	Sep '01
MT90869	16K x 16K	8K x 8K	8K x 8K	8K x 8K	8K x 8K	2, 4, 8, 16	2, 4, 8, 16, 32	272 PBGA	Oct '01
MT90870	12K x 12K	8K x 4K	4K x 8K	4K x 4K	8K x 8K	2, 4, 8, 16	2, 4, 8, 16, 32	272 PBGA	Oct '01
MT90871	8K x 8K	4K x 4K	4K x 4K	4K x 4K	4K x 4K	2, 4, 8, 16	2, 4, 8, 16	196 LBGA	Feb '02

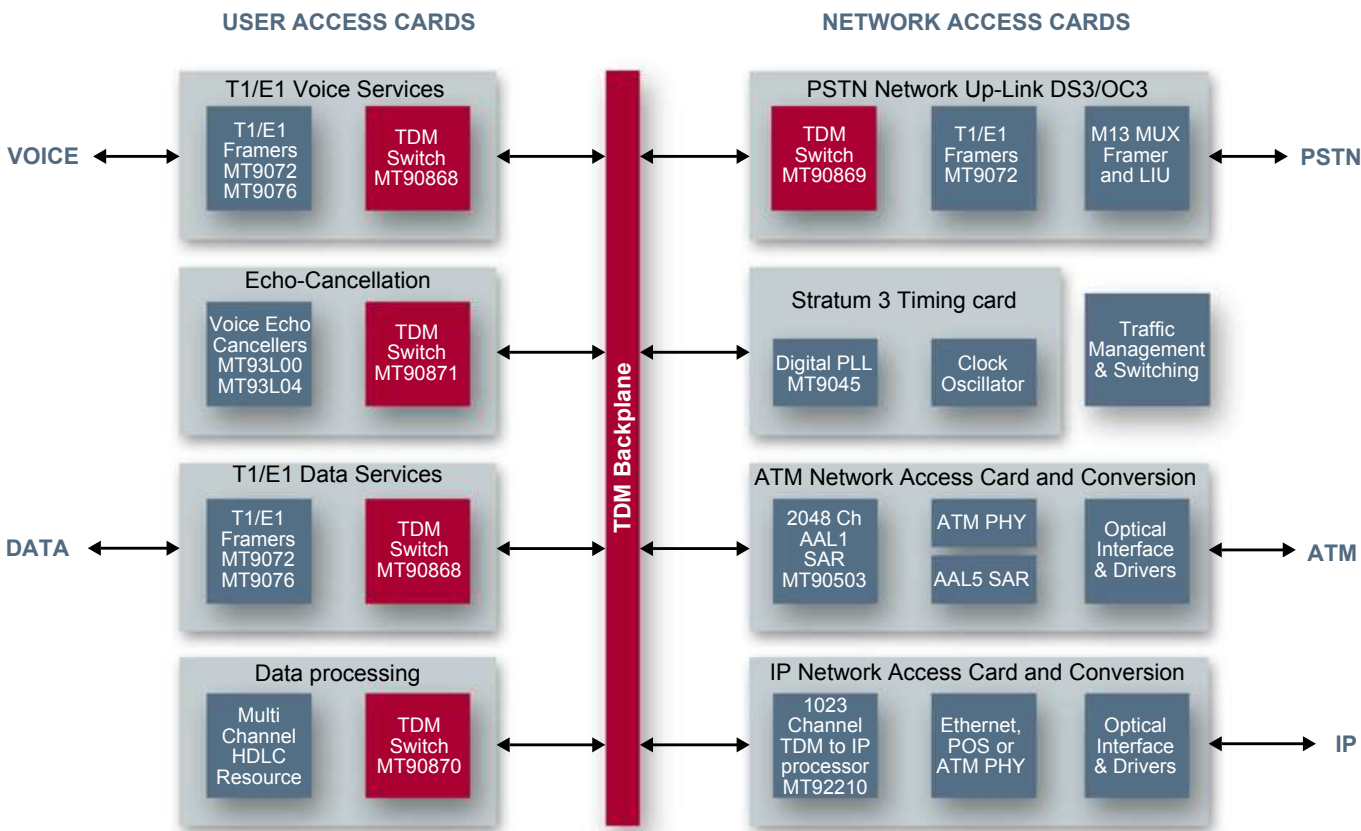
Applications

Increased competition in the telecom industry has fueled service providers to offer new products and services for voice, data and video that require higher bandwidth and flexibility. To accommodate these requirements, equipment like access concentrators and mediation switches are being deployed at the edge of the network to provide scalability and connectivity between a variety of user and network interfaces. This equipment must handle higher bandwidth while minimizing power consumption to keep deployment and operation costs down.

Convergence and mediation switch applications combine several gateway functions in a single box and provide services such as routing, bridging, billing, network management and network security.

The diagram below demonstrates how Zarlink's new MT90868, MT90869, MT90870 and MT90871 can be implemented in a mediation switch that supports TDM, ATM, PSTN, IP, Frame Relay and other types of ports. Traffic arrives via multiple T1/E1 lines, and is switched to TDM bus where it is transformed by IP or ATM processors and is uploaded to the ATM or packet network via OC-3/48 lines.

Convergence and Mediation Switch Application



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