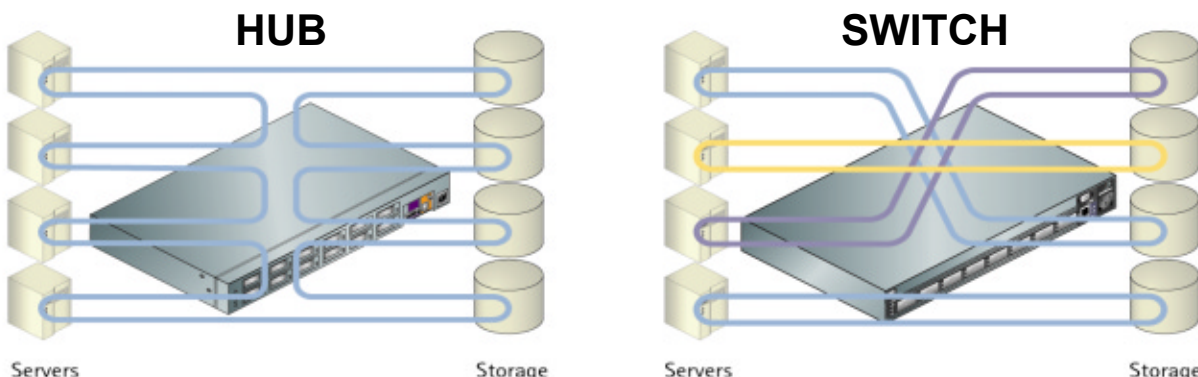# Switch to Capellix™

Fibre Channel-based Storage Area Networks (SANs) are an important architecture because they greatly enhance the performance, availability, and management of information systems, while allowing for an overall lower operating cost. Gadzoox® Networks pioneered SANs by developing the very first Fibre Channel hub and creating the term "SAN." When SANs were first introduced, the only interconnect devices were Fibre Channel hubs. While hubs continue to provide benefits in many applications, Fibre Channel switches have quickly become the preferred method of connecting devices on a SAN due to their performance and availability benefits. Through innovative technology, Gadzoox Networks has developed the Capellix 2000 Series SAN switches to be the same price as its industry-leading hub. The Capellix family was designed as a drop-in, plug-and-play replacement for hubs. The Capellix 2000 Series was introduced in March of 2000 and expanded in June 2000. It is proven to work, and it is available today as a perfect replacement for the Fibre Channel hub.

Switches provide better performance and availability than hubs

Switches offer two key benefits compared to hubs: increased performance and better availability. One performance benefit is due to increased bandwidth. A hub is a shared bandwidth device. In other words, only two of the devices connected to the hub can communicate at one time. With a switch, multiple, concurrent conversations can occur. The only limit to the switch bandwidth is backplane bandwidth and the number of active ports.

The second important benefit provided by switches compared to simple hubs is better availability. A Loop Initialization Protocol (LIP) is generated when there is a change in the status of the devices connected to the interconnect device, such as the connection of a new system. LIPs can also be generated if a component is malfunctioning. Since a LIP disrupts communication, it's important to isolate the LIP and only send it to other devices when those devices are idle. It is also necessary to fence out devices that are sending out unnecessary LIPs (a LIP storm). Switches excel at such LIP management, increasing overall system availability.

Feature Comparison

	Gadzoox Networks' Capellix Series			Vixel	
	Capellix 2000C	Capellix 2000F	Capellix 2000G	1000	2100
List Price	$2995*	$5795*	$4995 + GBIC	$1795+GBIC	$3995+GBIC
# Ports	8 – 11	8 – 11	8 – 11	7	8
Port type	HSSDC	Dual SC	GBIC	GBIC	GBIC
Expandable	Yes 3 GBIC Ports	Yes 3 GBIC Ports	Yes 3 GBIC Ports	No	No
Management	Included	Included	Included	N/A	Included
Data Throughput	8-11 Gb/sec	8-11 Gb/sec	8-11 Gb/sec	1 Gb/sec	1-4 Gb/sec
LIP Isolation	Yes	Yes	Yes	No	Yes
Zoning/# of Zones	Yes / 8	Yes / 8	Yes / 8	N/A	Yes / 4

*Media connections integrated. GBIC models require procurement of GBIC's.

THE CAPELLIX™ 2000

The Capellix 2000 Series offers a choice of easy-to-use, entry-level Fibre Channel SAN switches with industry-leading performance, scalability to 11 ports, broad interoperability, and open management. Choose the 2000C for intracabinet clustering applications, the 2000F for an economical all-fiber solution, or the 2000G for port-to-port flexibility.

Key Applications

SCSI Replacement and Storage Consolidation
Use a Capellix 2000C Fibre Channel switch instead of SCSI devices to enjoy all of the SAN benefits of speed, scalability, distance and availability, as well as cost reduction due to easier management and shared resources.

High-performance clusters
Use a Capellix 2000 Series switch to provide high throughput via multiple 1Gb/s full-duplex paths between server and storage.

High-availability clusters
A Capellix 2000 Series based SAN enables 24x7 access to data by providing alternate paths around malfunctioning components, by enabling concurrent maintenance activities, and by allowing for the addition of storage or servers without taking the installed devices offline.

LAN-free & Serverless Backup
Use a Capellix 2000 switch to remove backup traffic from the LAN, making backups faster and more reliable while alleviating backup window constraints.

Ordering Information

Order #	Model	Configuration	List Price
GZ-1030-1	Capellix 2000C	8-port HSSDC-based Fibre Channel switch with SANtools GX	$2,995
GZ-1029-1	Capellix 2000F	8-port Dual SC-based Fibre Channel switch with SANtools GX	$5,795
GZ-1027-1	Capellix 2000G	8-port GBIC-based Fibre Channel switch with SANtools GX	$4,995
GZ-1028-1	Capellix 210	3-port GBIC-based switch PIM (For Capellix 2000)	$1,295
n/a	Capellix 2000 Ventana SANtools GX	Basic device level management for Capellix 2000 (Includes: configuration agents, command line interface via console port, Telnet, zoning agent, policy services, Reflex II name server)	Included w/ Capellix 2000 C,F, or G
n/a	Capellix 2000 Ventana SANtools GXS	Advanced device level management for Capellix 2000 (Additional features include: Web-based management GUI, SNMP, IETF MIB support, third-party enterprise and storage management frameworks)	Included w/ Capellix 2000 C,F, or G

Please see the Gadzoox Networks price list for a complete list of accessories including cables, GBICs, and rack mount kits.

Visit our website

Visit the Gadzoox Networks web site at **www.gadzoox.com**.