

Sybase® IQ Multiplex Grid Option

Achieve new levels of scalability, power, and performance for your analytics environment



PRODUCT DATASHEET

AT A GLANCE

- Highly scalable grid architecture
- Fully independent scalability in all dimensions: storage, CPUs, and number of users
- Quick and easy scaling of jobs via flexibly assigned read and write nodes

THE TECHNOLOGY OF CHOICE

Sybase IQ multiplex is a highly scalable shared disk grid technology that allows concurrent data loads and queries via independent data processing nodes connected to a shared data source. Sybase IQ multiplex is the technology of choice for deploying a high-powered and efficient reporting or analytics environment because of the tremendous advantages it provides over other approaches. Those advantages include:

Scalability

With Sybase IQ multiplex you can continue to add nodes as demands on your analytics environment grows. You can scale your Sybase IQ environment to support tens of thousands of users and concurrent mixed workload jobs without having to worry about slow-downs in data load speeds or query performance.

Flexibility

With Sybase IQ multiplex you can easily and quickly configure your Sybase IQ Multiplex environment using a user friendly GUI or command line interface.

High Availability

Failure of any node leaves query jobs unaffected on other nodes. Node failures, if any, can be easily monitored, detected and administered such that failed jobs are migrated to other nodes.

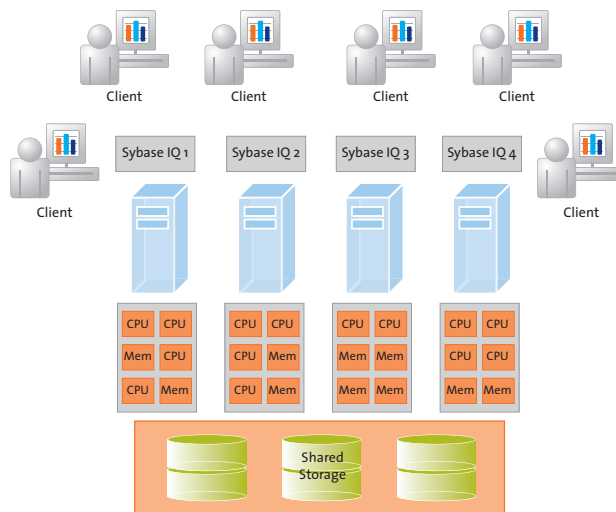
The Sybase IQ multiplex architecture allows for addition of servers independent of addition of storage capacity. The servers may be heterogeneous with respect to the number of CPUs; i.e., different servers in the Sybase IQ Multiplex may contain varying number of CPUs.

Economy

Sybase IQ multiplex enables you to deploy a powerful reporting or analytics solution using the resources that are right for you and your organization, including low-cost hardware and operating systems. And there is no need to purchase any additional, third-party “clustering” software.

Sybase IQ multiplex supports a hybrid cluster architecture that uses shared storage for permanent Sybase IQ data and independent node storage for catalog metadata, temporary data, and transaction logs. This architecture enables you to manage large workloads using multiple nodes. With Sybase IQ multiplex, you can load data from multiple writer nodes and allow shared database objects written by one user to be queried by multiple users simultaneously.

Figure 1: With Sybase IQ Multiplex, you can start with one server and add CPUs and memory as needed. You can add servers and CPUs with little or no loss in scalability, plus you can add terabytes of disk to the SAN, independent of adding server hardware, with no significant performance degradation. Sybase IQ multiplex supports multiple users per CPU. With the Multiplex Grid Option, you can add more flexibility and power to your environment by dynamically specifying read and write nodes.



Contact us today at infobi@sybase.com.

Visit our web site at www.sybase.com/IQ to access analyst reports, white papers, and other information.

EVEN GREATER POWER AND FLEXIBILITY

The Sybase IQ Multiplex Grid Option enables you to incrementally scale-out concurrent query jobs, load jobs, or both. This option enables you to specify Sybase IQ servers as reader or writer nodes across multiple server machines connected to an array of shared SAN (storage area network) disks via high-speed interconnect. The ability to specify nodes as reader or writer enables you to flexibly scale your environment as needed.

Reader nodes can run read-only operations against shared IQ objects and writer nodes can run read-only and read-write operations against shared IQ objects. By licensing secondary nodes (the first server node does not require a multiplex option license), you make your Sybase IQ environment more scalable and highly adaptable to rapidly changing requirements. Each writer node can perform read-write operations when you require additional data load capability, and read-only operations when you require additional query capability.

This option provides linear, incremental scalability to your analytics environment. And when deployed on a grid of low cost servers it provides tremendous value in performance and scalability at a fraction of the cost of a large symmetric multiprocessing (SMP) system. This scalability does not come at the cost of manageability. As shown in Figure 2, the intuitive Sybase Central graphical user interface makes adding, removing, and monitoring nodes—essentially the entire administration of the environment—a matter of a few mouse clicks.

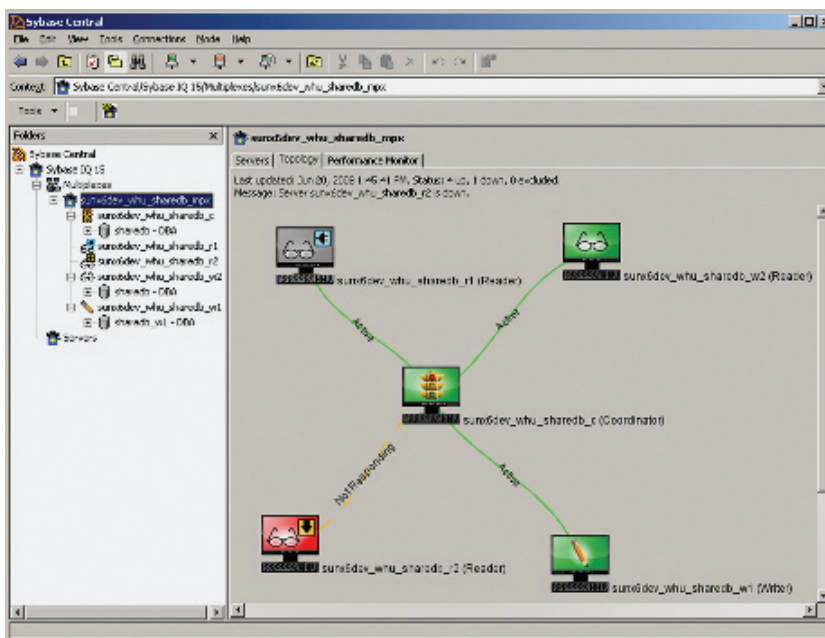


Figure 2: The Sybase Central GUI allows for quick and easy administration of your Multiplex environment.

ABOUT SYBASE IQ

Sybase IQ is the world's leading column-based analytics server, designed specifically to deliver faster results for mission critical analytics and reporting solutions on standard hardware and operating systems. It works with diverse data—including unstructured data—and diverse data sources to deliver unsurpassed query performance at the lowest price/performance available.

SYBASE, INC.
WORLDWIDE HEADQUARTERS
ONE SYBASE DRIVE
DUBLIN, CA 94568-7902
U.S.A.
1 800 8 SYBASE

www.sybase.com

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