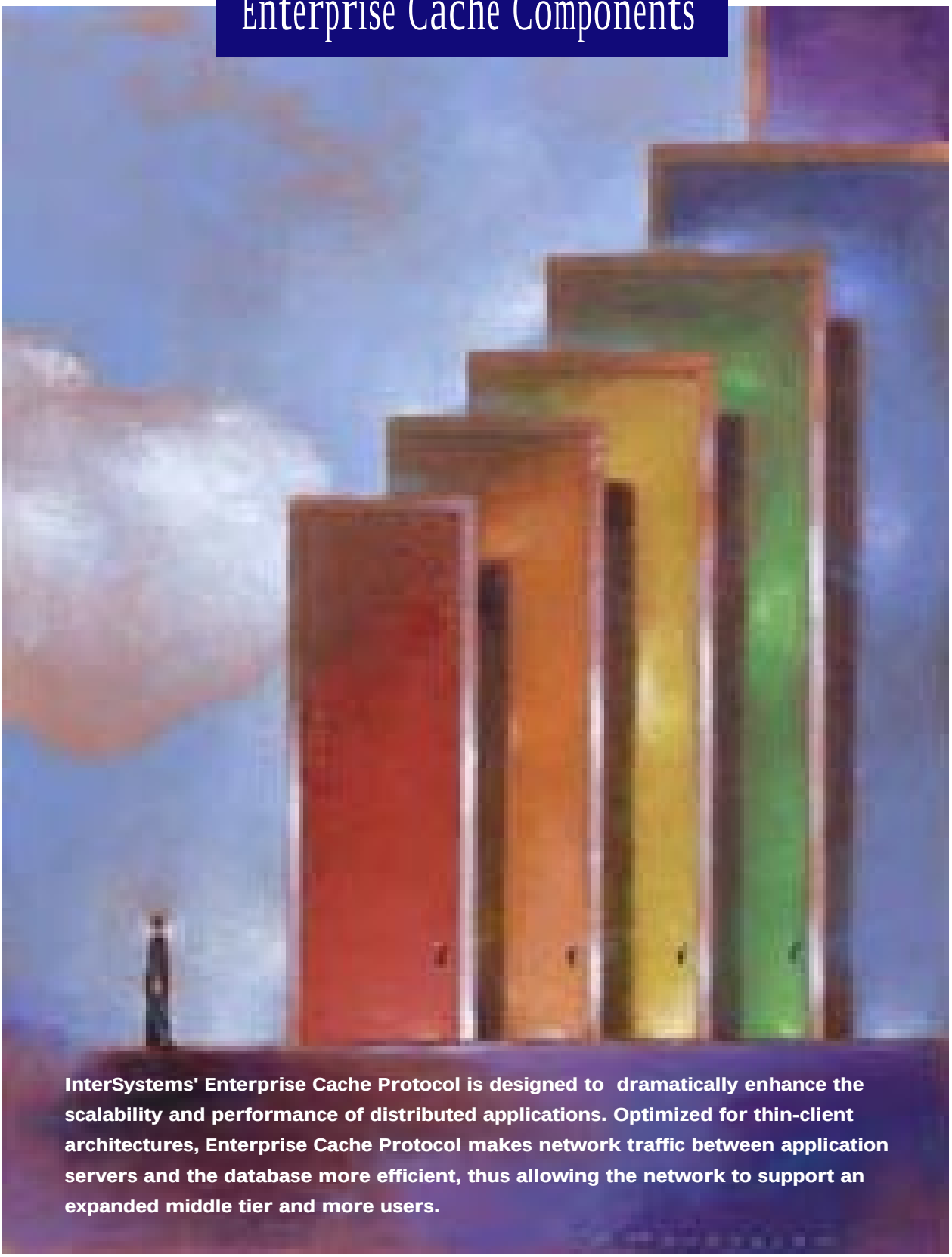
Enterprise Cache Components



InterSystems' Enterprise Cache Protocol is designed to dramatically enhance the scalability and performance of distributed applications. Optimized for thin-client architectures, Enterprise Cache Protocol makes network traffic between application servers and the database more efficient, thus allowing the network to support an expanded middle tier and more users.

InterSystems CACHÉ™
Make Applications Faster

Enterprise Cache Components

The Changing Face of Distributed Computing

The days of "thick-client" distributed architectures are waning. With the widespread and ever-growing adoption of Internet technology, the "client" piece of most client/server architectures is very likely to be a Web browser. Most of the processing load is handled by application servers, which are often large machines with lots of memory. One key to building fast, scalable solutions for today's thin-client architectures is to take advantage of the power of these machines, and reduce the amount of network traffic between application servers and data servers.

Increasing Scalability & Performance with ECP

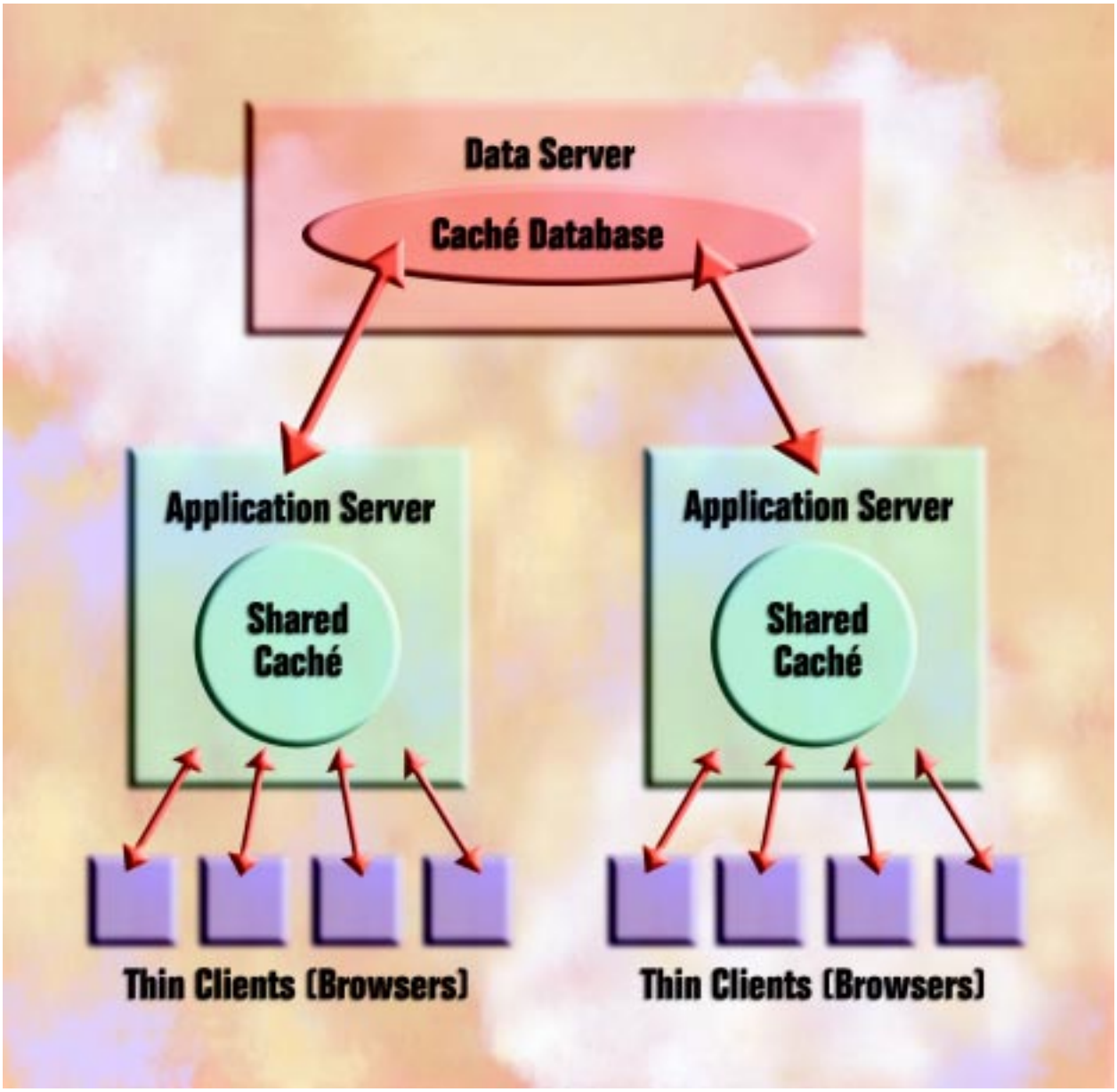
InterSystems' Enterprise Cache Protocol (ECP) can increase application performance in distributed systems. It is optimized for the thin-client architectures that are most commonly used today.

Here's how ECP works. When a client makes a request for information, the application server will attempt to satisfy the request from its local cache. If it cannot, the application will request the necessary data from the Caché data server. The reply data package includes not only the desired piece of data – it also includes the entire database block where that data was stored. The natural data relationships inherent to objects and Caché's multidimensional data model make it likely that this “extra” data will be needed by the application logic in subsequent processing steps.

The “extra” data is cached (in the normal database cache) on the application server, where it is available to all applications running on that server. That means that these data are available to satisfy subsequent requests from the client, or in fact from any client connected to the application server. ECP automatically takes care of managing cache consistency across the network and propagating changes back to the data server.

The performance and scalability benefits of ECP are dramatic. Clients enjoy faster responses because they frequently use locally cached data. And network traffic between the database and middle tier is greatly reduced, so any given network can support many more application servers and clients.

ECP: Creating & Managing a Distributed Cache



Getting More Than You Asked For

With ECP, requests to the Caché data server are answered with more than just the requested data – building up shared caches of relevant data. Data cached on the application servers can be used to satisfy subsequent requests from any client connected to that server. Performance is increased because clients often use data cached on the middle tier. Also, there are fewer calls to the data server, so network traffic is reduced, which means the network can support more applications servers, and thus more clients.

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