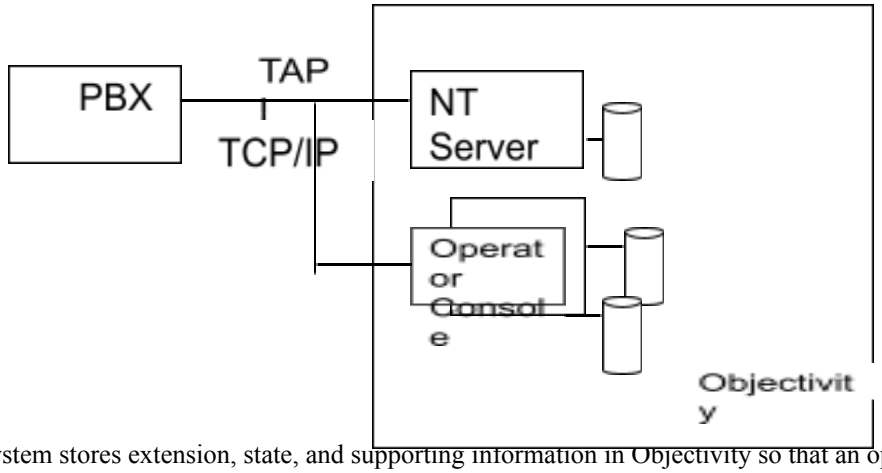
Objectivity Case History

Customer Information

Customer:	NEC
Industry:	Telecommunications
Application Domain:	PBX Call Flow Processing
Status:	Beta deployment: University of Colorado
Platform:	NT
Compiler:	Visual C++
Other Tools:	MFC

Application is an Attendant Management System (AMS), to assist operators and receptionists in handling and directing call traffic. The AMS sits as an adjunct to a PBX switch and communicates with it using Microsoft's Telephony API protocol (TAPI) over TCP/IP.



The AMS system stores extension, state, and supporting information in Objectivity so that an operator can graphically see whether a certain individual is on the phone, monitor incoming phone queues, i.e. calls on hold, transfer calls by selecting from an online phone book, all from an NT or Win95 operator's console. Example applications for the AMS would be managing large hotel PBX systems, where among other things, the AMS could immediately identify the name and other information of a guest that simply picked up the phone and called the hotel operator.

Buying Criteria

Reliability: High data integrity and system availability are hard requirements for telecommunication solutions. The reliability and availability of the underlying database is key to meeting these requirements.

Why Objectivity

Configuration Flexibility: Objectivity's distributed architecture allows NEC to build client centric, server centric, three-tier, or higher tier solutions for their product lines. This level of flexibility was not achievable with any other database. The AMS system uses Objectivity's distributed capability to store state information on operator console machines, while keeping central configuration information required by all on an NT server.

Redundancy: Redundancy is one method of increasing data integrity and system availability. Objectivity's Data Replication was viewed as the most effective solution to achieving redundancy.

Version Control: The ability of Objectivity to automatically version objects and track a genealogy of object instance versions simplifies some of the application development of NEC products.

Objectivity Strengths

Solid storage engine: Once applications were constructed to properly read/write data to the Objectivity database, data integrity was easily maintained with little additional effort.

Objectivity Difficulties

SQL++/ODBC Interface: Had extensive trouble trying to get the [3rd Party] ODBC interface to work. Numerous configuration requirements were not well documented and once configured properly additional problems were encountered, They eventually found it easier to write their own reporting interface using the Objectivity C++ interface.

Feature Requests

Dynamic Schema Interface(TMI): The AMS requires configuring for different customer installations, including storage of new data types and attributes (e.g. hotels would track different information on guests than a doctor office's PBX). Without a TMI interface *[Ed: At that time]* , Objectivity/DB forces a recompile for each modified installation, which is prohibitively expensive.

Contact Information

Objectivity Rep: Steve Fox
Customer Contact: Sheryl Teague
Phone:
Email: