



ip.access  
Cambridge, England  
www.ipaccess.com

### Industry:

Communications

### Annual Revenue:

US\$25.6 million

### Employees:

130

### Oracle Products & Services:

Oracle Berkeley DB High Availability

**“Oracle Berkeley DB High Availability is essential to our ability to guarantee 99.999% availability to network operators.”** – Abdul Malik Ali, Software Engineering Team Leader, ip.access

## ip.access Embeds New Generation In-building Mobile Access Solution to Boost Quality and Cut Costs

ip.access makes small, low-cost base stations, known as 2G picocells and 3G femtocells that solve in-building access problems for mobile operators. Ranked by the Sunday Times as one of the United Kingdom’s fastest growing private technology companies in 2007, ip.access helps operators increase capacity and coverage while driving down costs.

### Challenges

- Build a high-performance, embedded database for Oyster 3G™, a low-power femtocell base station for homes that provides high-speed voice and data access in buildings in which walls thickness makes obtaining a 3G signal difficult
- Create a self-maintaining database engine with in-process storage and automatic failure recovery that can guarantee 99.999% availability for customer transactions and aggregate traffic from tens of thousands of access points simultaneously
- Ensure atomicity in the event of any database, operating system, or hardware failure to eliminate the risk of partially completed transactions

### Solution

- Purchased Oracle Berkeley DB High Availability to benefit from unrivalled performance, scalability, and fault tolerance combined with a small footprint and zero administration
- Chose Berkeley DB for its seamless integration with the OpenClovis Application Service Platform used for Oyster 3G
- Embedded Oracle Berkeley DB High Availability into Oyster 3G, a solution designed for standards-based integration with 3G networks that also enables operators to benefit from future IP Multimedia Subsystem (IMS)-based implementations
- Ensured data protection during software or hardware failures
- Leveraged built-in redundancy and ability to spread data across multiple nodes to provide 99.999% availability
- Aggregated traffic from Oyster 3G Access Points to each Access Controller, enabling simultaneous execution of 20,000 end-user transactions without performance loss
- Enabled software updates without interruption to ongoing transactions
- Won the 2007 GSM Association Award for Best Radio Access Product