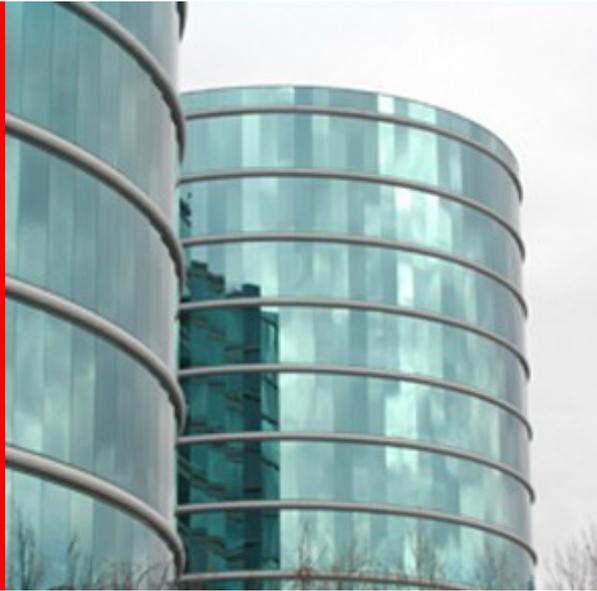


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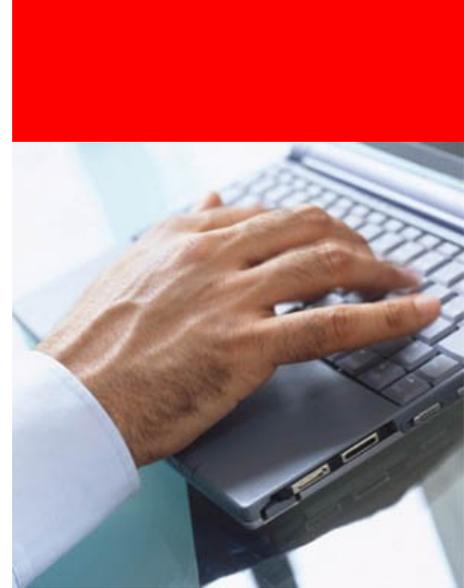
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Building an Open Source Business

Michael A. Olson
Vice President, Embedded Technologies

Program **Agenda**

- Sleepycat Software and Oracle
- A History of Berkeley DB
- The Dual Licensing Business Model
- Other Open Source Business Models





Sleepycat Software, Inc.

Michael Olson, CEO

Sleepycat Software was founded in 1997 to commercialize the popular open source embedded database, Berkeley DB. Sleepycat was profitable from the very beginning, and posted strong growth through 2005.

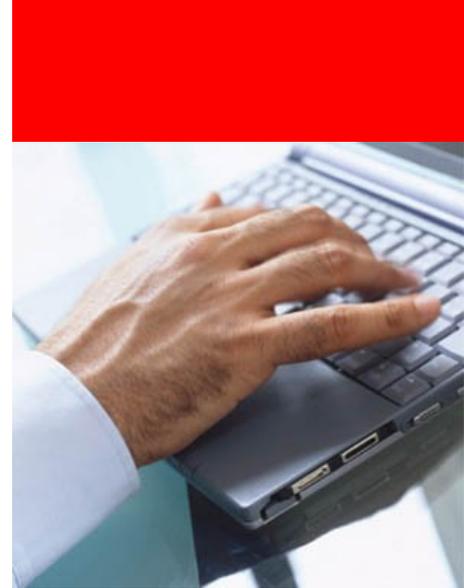


Oracle Acquires Sleepycat Software

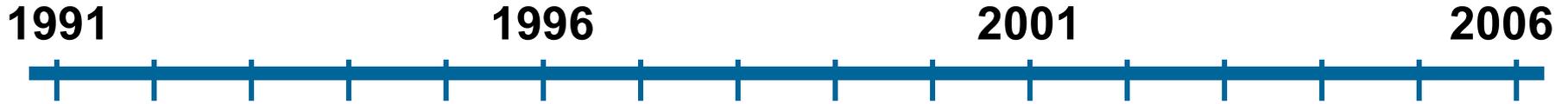
In February 2006, Oracle acquired Sleepycat and integrated Berkeley DB into its line of embeddable technologies. The Sleepycat team and Berkeley DB community have made the transition and now collaborate with Oracle.

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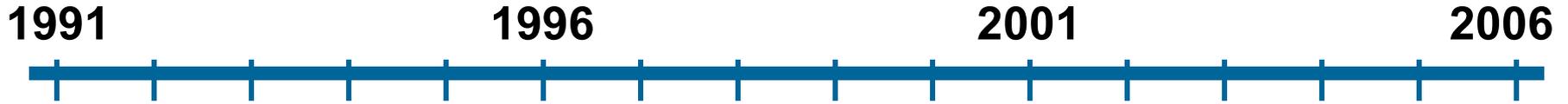


The Origins of Berkeley DB



Computer Systems Research Group, University of California at Berkeley aims to distribute a version of UNIX that does not require a source code license from AT&T. Needs cheap labor, not mentally contaminated, to produce clean versions of key utilities. Keith Bostic convinces Margo Seltzer and Mike Olson to work on a replacement for *ndbm*.

The Origins of Berkeley DB



Seltzer and Bostic polish the original 1.0 code over several releases, and release version 1.85 in 1992. This version rolls into the 4.4BSD tape, where it proves enormously popular.

Original *ndbm* replacement.

The Origins of Berkeley DB

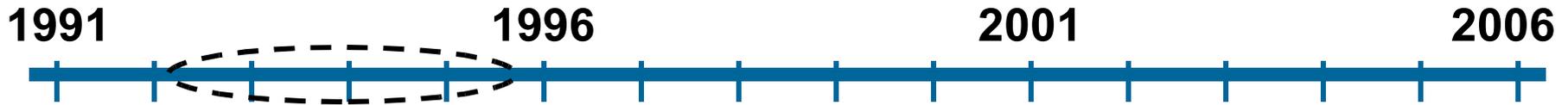


Many projects, commercial and academic, pick up the Berkeley DB code and incorporate it into applications and servers. In particular, the LDAP team at University of Michigan chooses Berkeley DB as the backing store for their directory server.

Version 1.85 released with 4.4BSD UNIX.

Original *ndbm* replacement.

The Origins of Berkeley DB



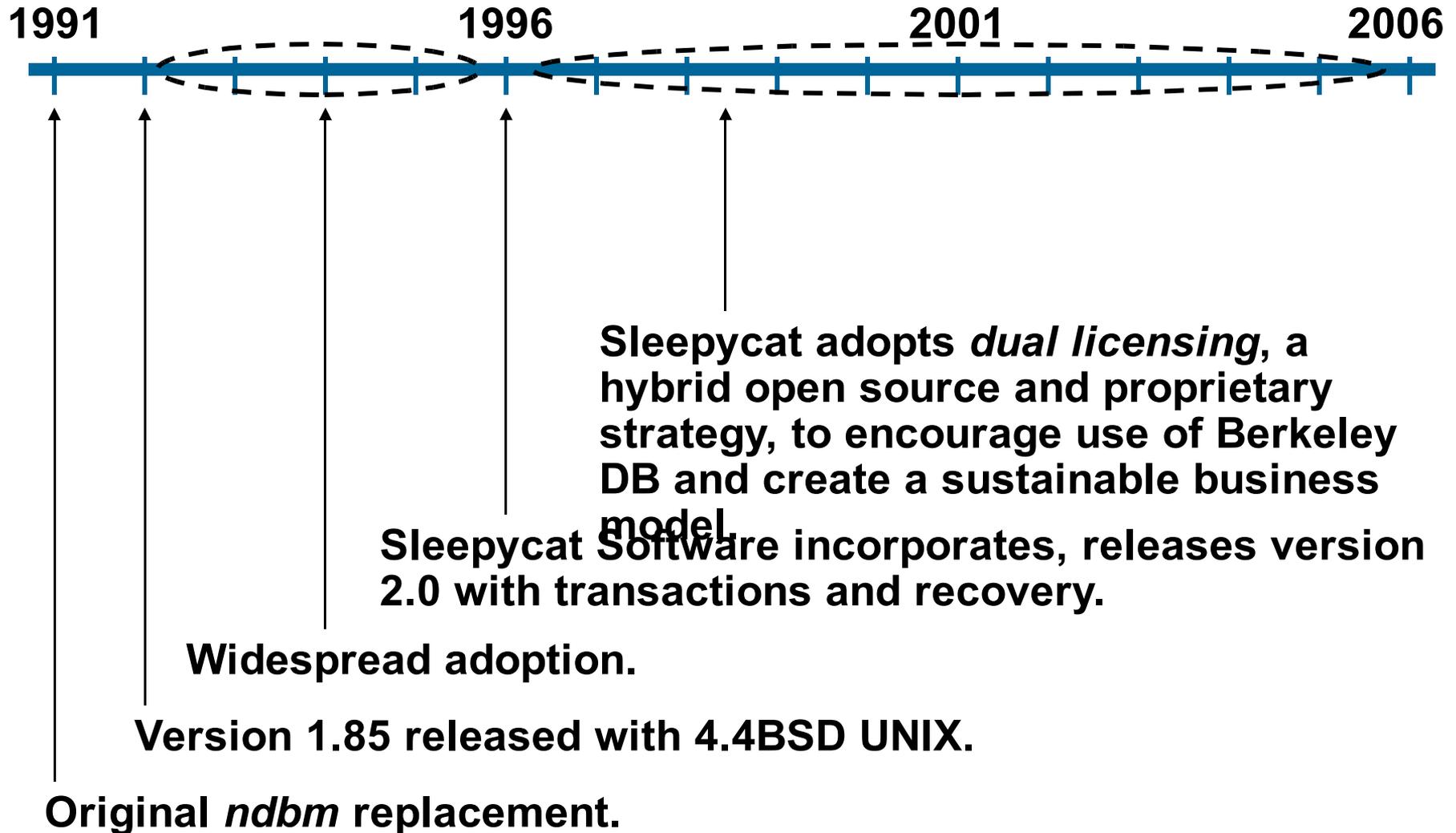
The UMich LDAP team, now working for an Internet startup called Netscape, convince Seltzer and Bostic to add transactions, recovery and support for concurrency to the academic version of Berkeley DB. Seltzer and Bostic incorporate Sleepycat Software as the owner of their work.

Widespread adoption.

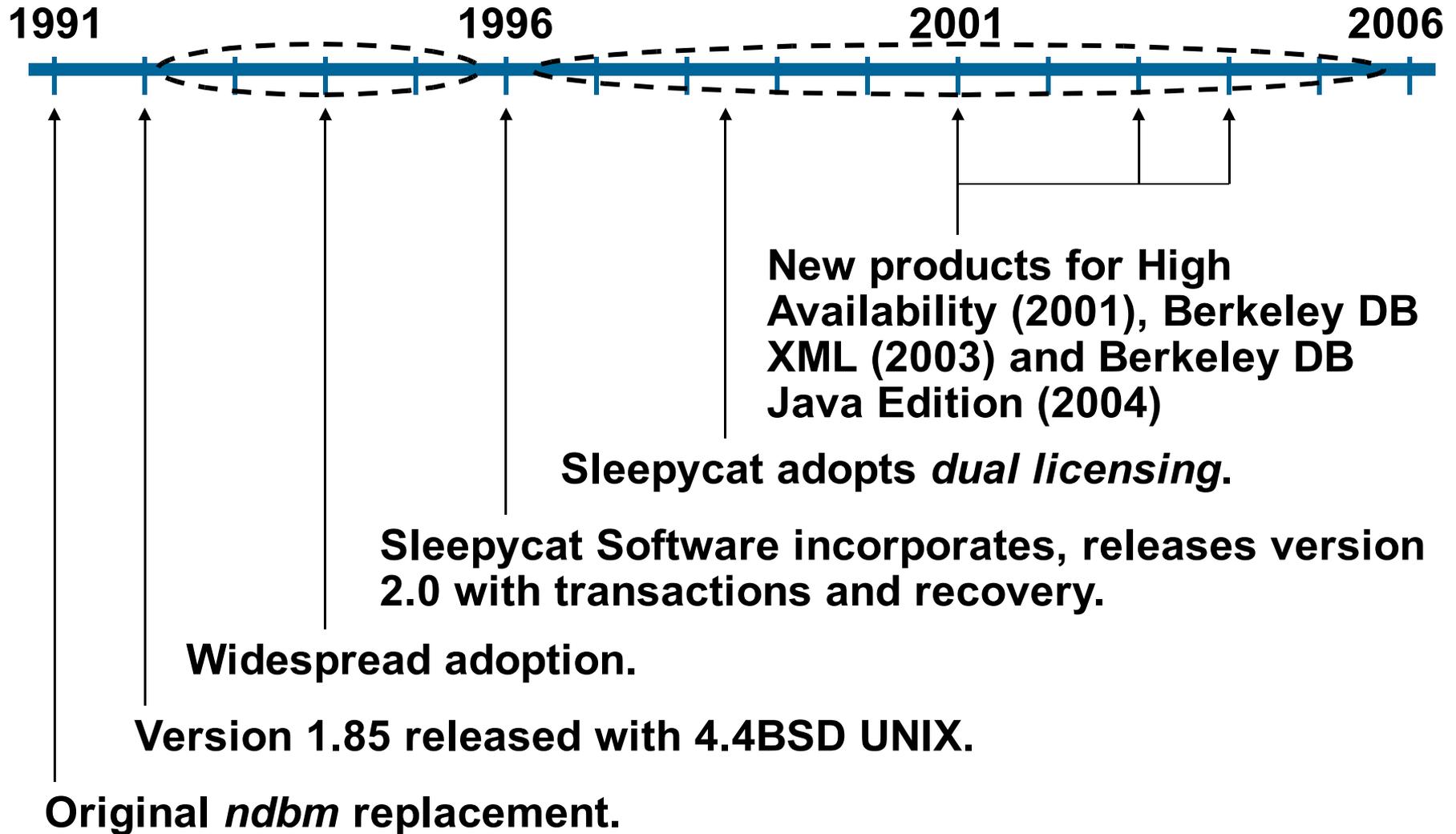
Version 1.85 released with 4.4BSD UNIX.

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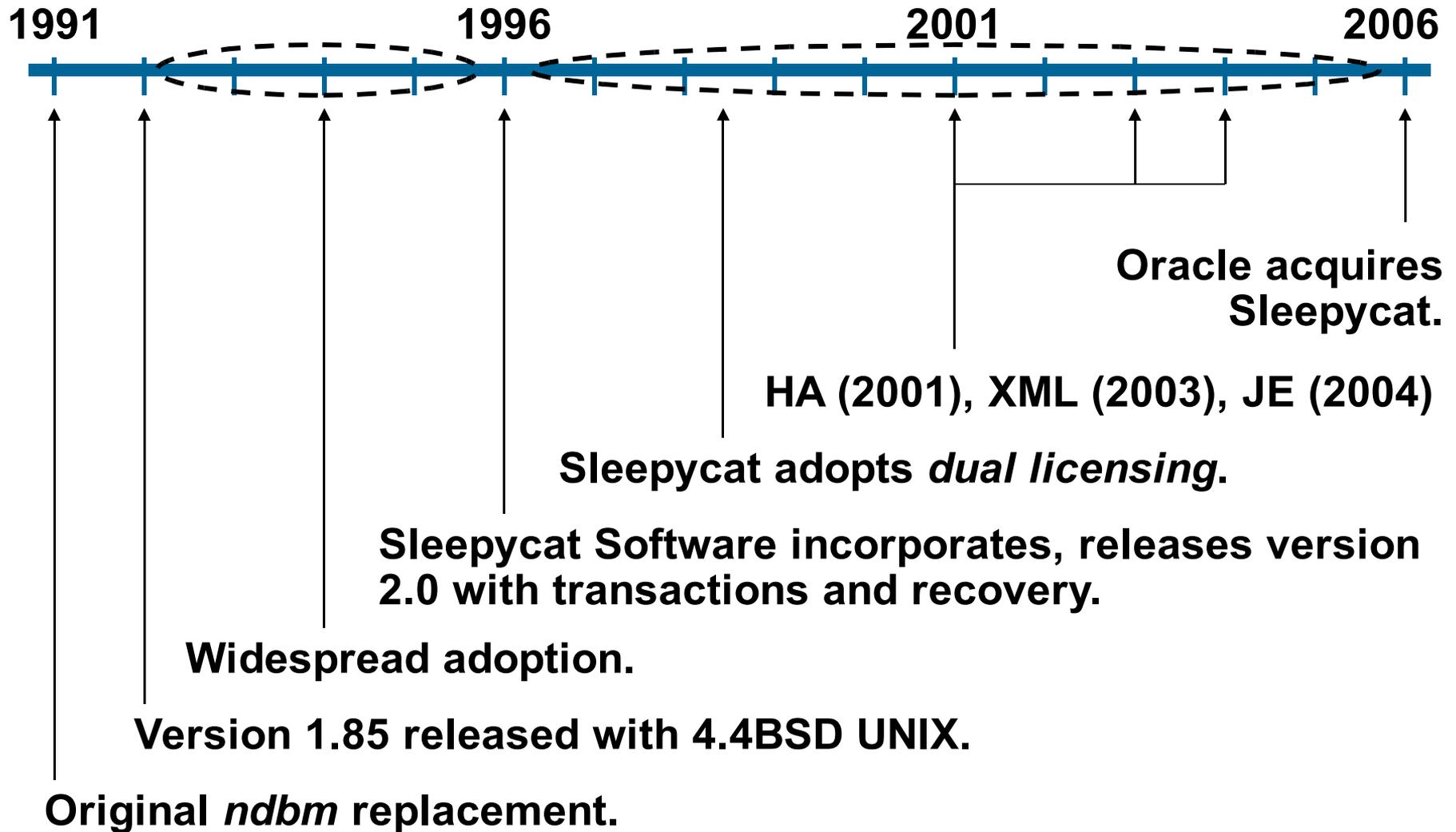
The Origins of Berkeley DB



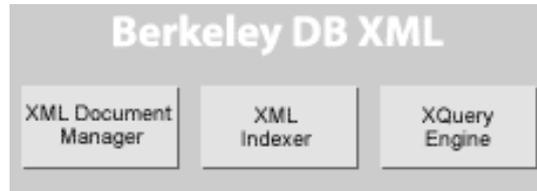
The Origins of Berkeley DB



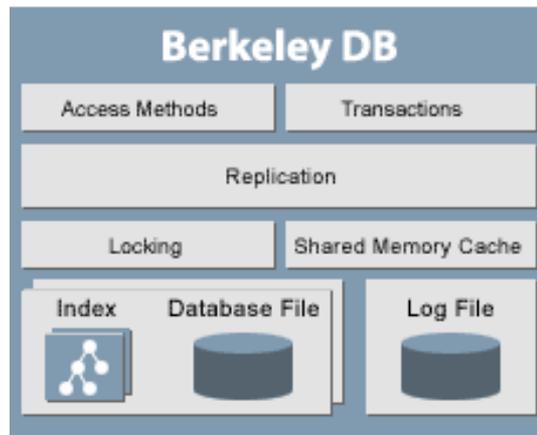
The Origins of Berkeley DB



Berkeley DB Product Family



② Berkeley DB extension providing XQuery-based access to XML documents



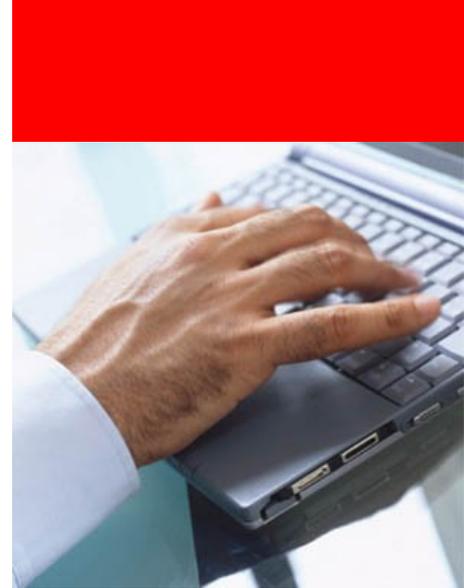
① The original transactional storage engine for applications developed with C, C++, Java, PHP, Perl, etc.



③ Transactional storage engine written in Java and optimized for Java environments

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Dual licensing

- Public license says:
 - Download and use Berkeley DB at no charge.
 - If you distribute an application that uses Berkeley DB, you must give your own source code away, too.
- If you don't like the public license:
 - Purchase a proprietary license for a fee.

Dual License Model

Public License

Permits use in open source projects, or applications that are not distributed to third parties.

Commercial License

Permits closed-source distribution of an application to third parties, and provides business assurance.

Advantages

- Very broad, low cost distribution
- Very high code quality
- Strong installed base



- Strong licensing-based revenue stream
- Profitable, sustainable business model

Customer Benefits

- Huge developer community
- Very high code quality
- Easier debugging and integration
- Easy download and trial
- No escrow issues
- Freedom from vendor lock-in



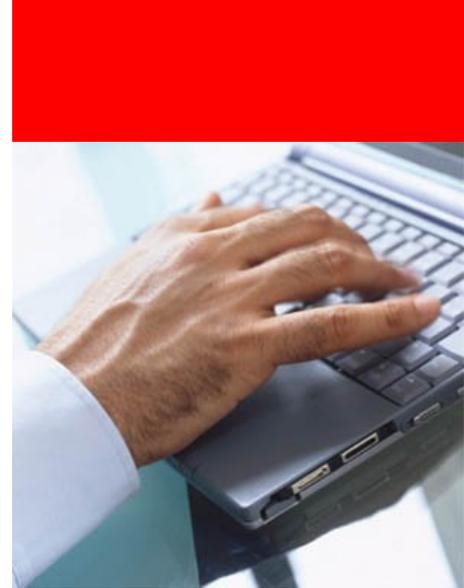
- Rights to redistribute proprietary code
- Representations, warranties and indemnification
- Full-time, dedicated development team (continuity, roadmap, documentation)
- Single vendor to hold accountable

Why dual licensing works

- Oracle owns the intellectual property in Berkeley DB
 - Can make different rules for different people
- Open source is our distribution strategy
 - Enormous installed base
 - Big barrier to competitors
- Combination with customer code gives us leverage
 - Require release of source code
 - Or pay to keep it private

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Subscriptions

- Package an existing open source software product
- Deliver regular updates
 - Bug fixes
 - Pre-built releases
 - Integrated, tested packages
- Charge customers for this service

- Red Hat, MySQL

Proprietary Extensions

- Give away an open source product
- Build tools or extensions that make it more useful to customers
 - Configuration and management
 - Critical business processes
 - Integration with new and legacy applications
- Charge for these extensions
- EnterpriseDB, Sendmail, JasperSoft

Deliver On-Line Services Based on Open Source Products

- Deploy infrastructure products (eg, Linux)
- Build on-line services on top of them
- Deliver those services over the Web
- Charge for the services
 - Advertising
 - Sell retail goods
- Amazon, Google, Yahoo!
- Tencent QQ

Important Considerations

- Deliver a valuable product
 - If people don't want to pay, you don't have a business!
- Choose the right license
 - GPL, BSD, Apache, Mozilla...
- Know how you will make money
 - Your strategy for selling depends on how you produce the software and who will use it
- You must understand all three of these points in order to build an open source business!

The Future of Open Source

- Tremendously successful
 - It's here to stay.
- Doesn't eliminate private source software
 - Much newly-developed software will start out as private source
 - Some applications and services will always be private source
 - Clayton Christensen's "conservation of attractive margins"
- The future is hybrid
 - Most enterprises and end users will rely on both open source and proprietary software

For More Information

<http://search.oracle.com>

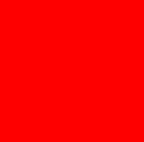
open source



or

<http://blogs.oracle.com/mikeolson/>

<http://oss.oracle.com>



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