

## solidDB 6 and IBM BladeCenter – In-Network Subscriber Data Management Solution for Telecom Service Providers



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### Highlights

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- **solidDB 6 in-network Subscriber Data Management solution helps enhance the customer experience, helping increase revenue and profit**
- **Supports rapid, real-time access that can scale to millions of subscribers with high availability**
- **Provides a reliable and robust 24x7 data management solution**
- **IBM BladeCenter family provides a scalable, open standards based platform for next generation networks applications**

As demand for new Next Generation Network (NGN) services continues to accelerate, the importance of subscriber's information becomes even more critical to the effective delivery of these new services. The desire of telecommunications service providers to pursue these new revenue opportunities — while meeting high service level expectations — is driving a need for a comprehensive subscriber data management (SDM) solution like solidDB 6.

Subscriber data includes a complete profile with entitlements, status, location, preferences and other context. Without an effective SDM, the world's best technology lacks customer relevance and hinders telecoms from translating this into the revenue they seek. Conversely, when it's done right SDM can transform discreet services into a compelling, holistic customer experience.

Effective SDM propels innovation, potentially higher margins and growth while improving customer loyalty. SDM can also help lower costs, by reducing needless customer service calls and enabling system consolidation. For an SDM to be effective, it must:

- *provide a single, real-time view of the subscriber (or a collection of subscribers, in some contexts). Having a single view avoids confusion. Having a real-time view means the information can create value when it's needed – immediately. Response time requirements in the tens of milliseconds are common. Among other things this mandates an in-network solution.*
- *be available 24x7. This means handling upgrades, failures, and disasters without affecting subscribers.*
- *support high throughput. Providers must contend with the perils of introducing services that people like; those services get used more intensely and by more people. Moreover, attractive services tend to use SDM more heavily, driving up throughput requirements.*
- *be flexible, with rich, open interfaces, to support rapid deployment of advanced new services.*
- *complement existing technology investments, both on the network and business side, adding value while minimizing disruptions.*

*“Solid Information Technology continues to work with IBM to ensure our data management solution enhances and supports the requirements for a standards-based ecosystem for the IBM BladeCenter, making it easier and more cost effective for our joint customers to create and deliver embedded solutions that are fast, always-on, and flexible.”*

— Ari Valtanen  
Co-founder and  
Chief Technology Officer  
Solid

#### **solidDB 6 - Subscriber Data Management solution**

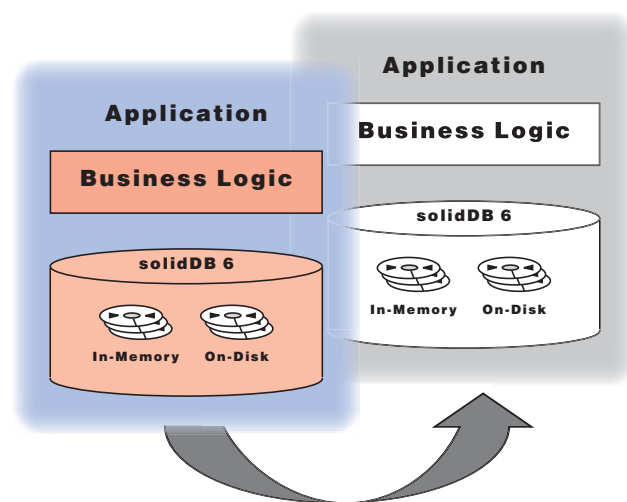
solidDB 6 is an open, commercial-off-the-shelf (COTS), in-memory, in-network, relational database solution that delivers exceptionally fast transaction speeds and highly available data access under high-throughput conditions. It helps satisfy the real-time, in-network demands of service providers, and is an ideal platform for SDM. It includes both in-memory and on-disk engines, accessed by a single SQL interface.

solidDB 6 can be configured using a hot-standby architecture to achieve six 9's data availability (99.9999%). This two-node architecture can also be used for load-balancing, increasing throughput by up to 100%. solidDB 6 offers lower license fees than other leading databases, as well as a 'zero admin' capability. solidDB 6 can be deployed as a compact 3MB executable, while delivering complete functionality.

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#### **solidDB instant failover and load balancing capabilities**

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**In-memory and on-disk dual engines with instant, transparent failover and load balancing across two nodes.**

**Source: Solid Technology**

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*Sonim Technologies uses solidDB and IBM BladeCenter in their end-to-end mobile VoIP platform, delivering high-performance push-to-talk and “push-to-X” applications on today’s GPRS, UMTS, EVDO, WiFi and WiMAX data networks. The platform is interoperable with standard IMS platforms.*

*solidDB 6™ delivered industry leading throughput of 66,932 transactions per second (tps) in a benchmark at IBM’s Network Transformation Center. The industry standard TM1 benchmark simulated a demanding Home Location Register (HLR) wireless scenario, using solidDB 6 and Linux on one HS21 dual processor, quad-core blade in an IBM BladeCenter HT system.*

**IBM BladeCenter family — for every customer need**

The IBM BladeCenter T chassis provides hardware redundancy (power supply, I/O modules, management modules, L2 switching, mid-plane, etc.) thereby reducing potential points of failure in the solution.

The IBM BladeCenter is an advanced blade system which integrates servers, storage and networking into a single chassis — yielding significant simplification, improved density and potential TCO savings . A single family of common server blades, storage, I/O, switches and networking modules are fully supported and interchangeable across the family of BladeCenter chassis. The IBM BladeCenter chassis is designed as the ideal solution for data center deployments. The IBM BladeCenter H is for high performance computing platform, while the IBM BladeCenter T chassis is specifically designed for telecom central office deployments.

The new, IBM BladeCenter HT — a new, telecom optimized version of the BladeCenter H — opens new market opportunities with a new and powerful NGN platform ideally suited for telecom equipment and service providers.

The IBM BladeCenter T and BladeCenter HT deliver rich telecommunications features and functionality, including fault-tolerant capabilities, hot-swappable redundant DC or AC power supplies and cooling, and built-in systems management resources in a 20” deep chassis. The rigorous Network Equipment Building System (NEBS) Level 3 and European Telecommunications Standard Institute (ETSI) outline requirements typical of telecom central office environments in the areas of electromagnetic compatibility, thermal robustness, fire resistance, earthquake and office vibration resistance, transportation and handling durability, acoustics and illumination, and airborne contaminant resistance. The IBM BladeCenter T and BladeCenter HT chassis meet the NEB Level 3 / ETSI requirements<sup>1</sup>.



### **Solid and IBM: a winning combination**

The effective management of real-time services, such as VoIP and NGN, requires well integrated management processes that provide service providers with a comprehensive view of their valuable network resources. The combination of solidDB 6 and IBM BladeCenter family delivers the performance, reliability and affordability demanded by mission critical telecommunications applications. Running with Linux and other operating systems, solidDB 6 is equally comfortable in central offices and data centers. It leverages the latest 64-bit and multi-core technologies. In a recent proof-of-concept, solidDB 6 using the IBM BladeCenter was able to dramatically accelerate DB2 data access. The IBM BladeCenter is the ideal platform for the deployment of these services providing a single platform to help reduce operating costs and complexity.

### **For more information**

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For more information about solidDB from Solid Information Technology, visit:

**[solidDB.com](http://solidDB.com)**

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[1] For additional details, please refer to Underwriter's Laboratory (UL) certified NEBS Level 3 / ETSI test report.

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