Actian Zen Enterprise Server

Zero DBA, embeddable database for data-driven intelligence

Key Benefits

Zero DBA, developer-configurable SQL and NoSQL

Embed or bundle with your business-critical intelligent applications

Optimally handle JSON, BLOB, and time-series data with a single DB

Data portability follows your application across platforms and versions

Simple upgrades

Backward compatibility

Supported Platforms

Windows 10, Windows 2012, 2016, 2019, and Nano servers, Linux, Mac OS X

Intel x86/x64 and ARM 32-bit/64-bit
175MB minimum installed footprint

License Options

500-user developer kit

5-user, 32-bit Workgroup Server for Windows kit

1–10, 100, 250, and 1000-client packs for commercial deployment

Actian Zen Enterprise Server database focuses on the needs of remote embedded, on-premise and cloud application developers, providing persistent local and distributed data across intelligent applications deployed in enterprise, branch, and remote field environments. Develop and deploy on Intel or ARM running Windows 10, Windows Server 2019, Linux, or macOS. Zen Enterprise Server extends the features of classic PSQL embedded editions to the latest application requirements for an underlying database engine to support captive data, embedded analytics, and machine learning.

SIs, ISVs, and OEMs increasingly need to embed a data management platform in their applications to support value-added features and functionality, including end-user personalization and multichannel context, decision support, multitenant cloud support, provisioning, management, and security and governance. With both relational and API data access, self-tuning, reporting, data portability, exceptional reliability, easy upgrades, and backward compatibility, developers of intelligent software can deliver applications at scale across on-premise data centers, hybrid cloud, and branch and field environments.

SQL and NoSQL

Zen Enterprise Server offers SQL access for reporting and local transactions and NoSQL API access for performance and local analytics support that leverages all popular programming languages, providing the perfect combination of speed and flexibility. Developers can choose among several methods of direct access to data without going through a relational layer. This enables fast read and quick insert, update and delete performance alongside full ACID response on writes and ANSI SQL queries. Zen Enterprise Server supports SQL access via ODBC and JDBC and NoSQL access via the Btrieve and Btrieve 2 APIs.

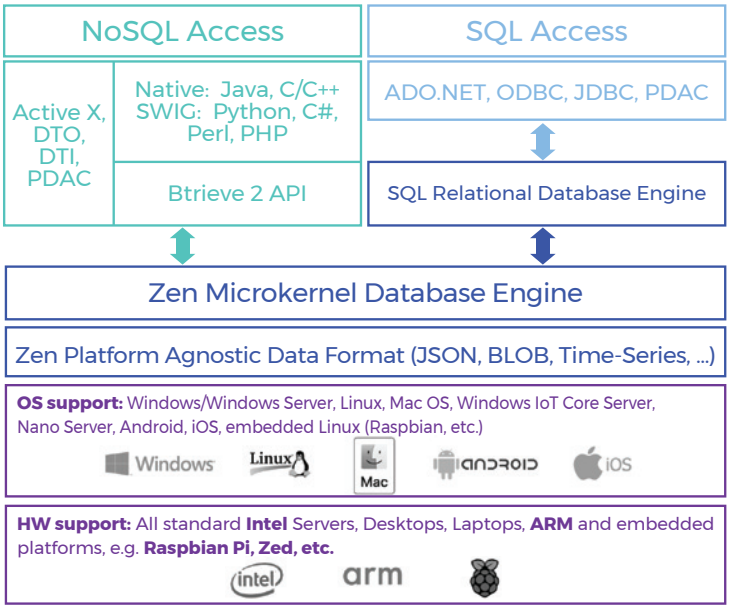
New Btrieve 2 API

C and C++ application developers can take advantage of the new version of the Btrieve 2 API, with the same access calls as the original but in a simplified, more intuitive client library. Access the performance and flexibility of the Btrieve engine without the complexity. The Btrieve 2 API SDK also includes Simplified Wrapper and Interface Generator (SWIG) files for C#, Perl, PHP, and Python, giving developers in those languages Btrieve data access with a quicker ramp to productivity.

Zero Database Administration

Set it and forget it. OEMs and ISVs cannot always count on customers purchasing support and maintenance for their products and therefore need to avoid integrating components that create undue burdens and unforeseen support costs. Zen Enterprise Server database is built for non-IT environments, removing need for consultants or DBA supervision. Whether you elect to never touch your app or continually patch and redeploy it, Zen Enterprise Server won't break your app under any circumstances.

Actian Zen: Zero-DBA, Embedded, Nano-footprint, Multi-Model, Multi-Platform



Data Portability

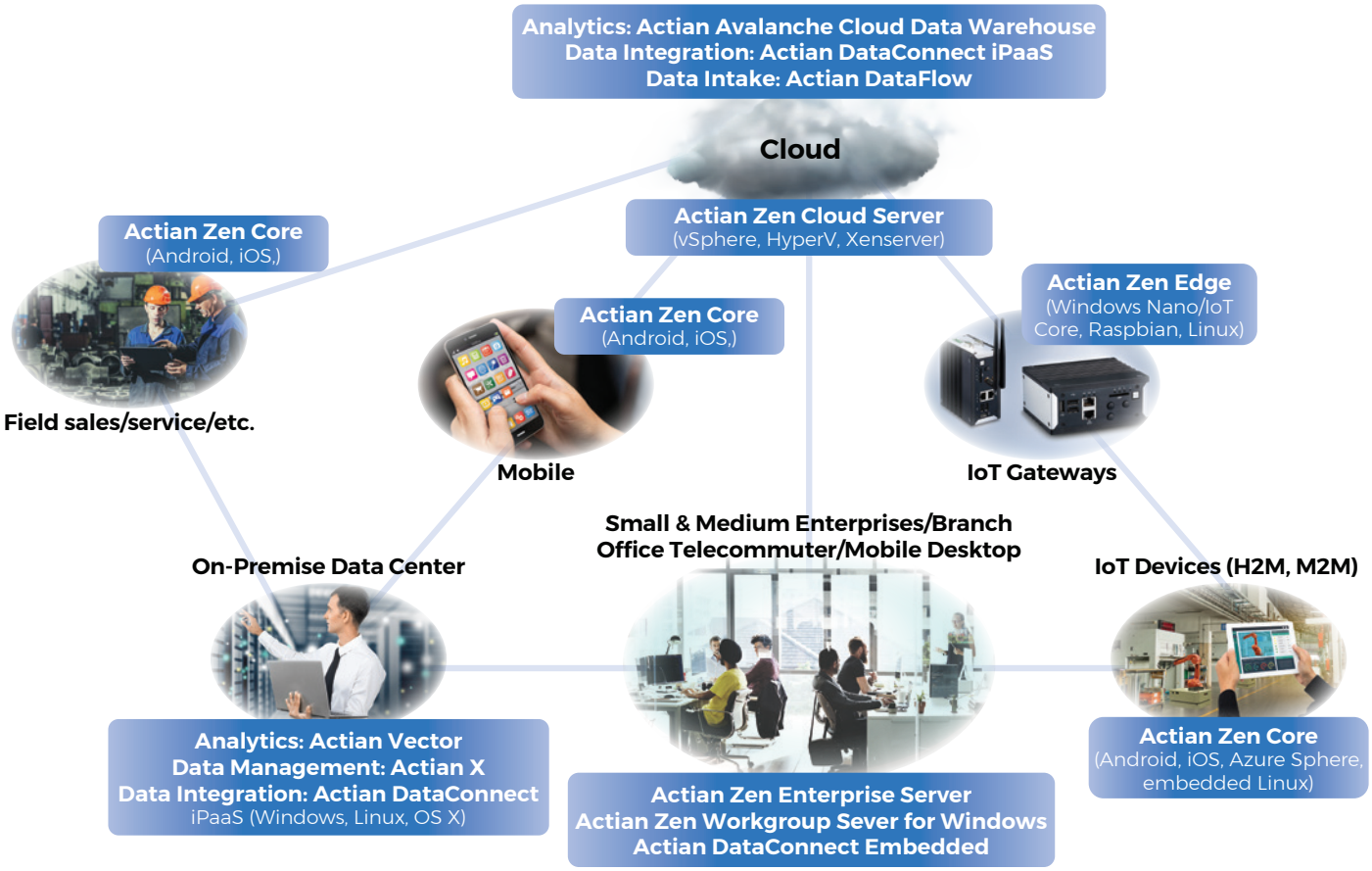
Zen Enterprise Server database supports the same data types, including JSON and BLOB, and file formats as the rest of the Actian Zen product line and prior PSQL versions, so none of the typical ETL overhead is required for accessing and moving data between Windows, Linux, macOS or Actian Zen Edge and Zen Core platforms such as Android, iOS, Windows IoT Core, and so forth. Plus, data portability and AES 256-bit data encryption extends across all supported platforms and multiple versions of Actian Zen database products. Seamless portability greatly simplifies development, deployment, and maintenance. No unsecured ETL work – just copy data and go.

Backward Compatibility

Backward compatibility has long been a top priority for Actian Zen and earlier PSQL versions. Upgrading to the latest release is designed to be easy, with no need to migrate data, rewrite or recompile code, or even reinstall existing applications. Just keep moving smoothly from release to release with the same low-stress maintenance and possibilities for innovation.

Making Intelligent Applications Data-Driven

Actian Zen Enterprise Server database is ready to handle your application architecture as it evolves. It enables you to incorporate intelligence, multiplatform support, stateful distributed process, and other features that drive value for your end-users and revenue for your products and services. Some data, such as your customer's data on their customers, will reside in common data repositories and enterprise warehouses. However, data that your application needs to improve satisfaction rates, secure it, enable you to monitor and manage upgrades and determine which features and functions have bugs, what the upgrade path should be, etc. should be your IP – just as your source code is – and should be encrypted and stored in your own database.



Offer on-premise, SaaS and mobile device intelligent applications with a single data management platform

Developers, product designers, and OEMs need to be able to support multiple environments with a single data management platform. Whether it's a traditional Windows or Linux server app or an embedded app in a smart device, the Actian Zen database family can be used in traditional Enterprise apps in the Cloud or a data center, at branch offices, in consumer-facing or hidden industrial apps – with a range of supporting resources, from SoC to field-based server. File systems or simple local SQL databases (for example, SQLite) are not powerful enough to support the range of devices or data sizes or to handle both transactional data and local analytical processing in client-server or peer-to-peer settings. Alternatively, the traditional databases or NoSQL platforms are incapable of limited configuration and focus (Document Store vs. Time-Series, for example) for a full range of embedded systems, do not embed into apps, require on-site support, and do not support OEM models. Most developers and designers create products across platforms and data management and file systems, which can slow design and coding through multiple APIs, adding ETL overhead for data conversion, maintenance, and support. The Actian Zen database family runs on servers, desktops and laptops, and embedded systems, deploys on any Intel or ARM platform, including Linux, Windows, Windows IoT Core, Android, iOS, and OS X.

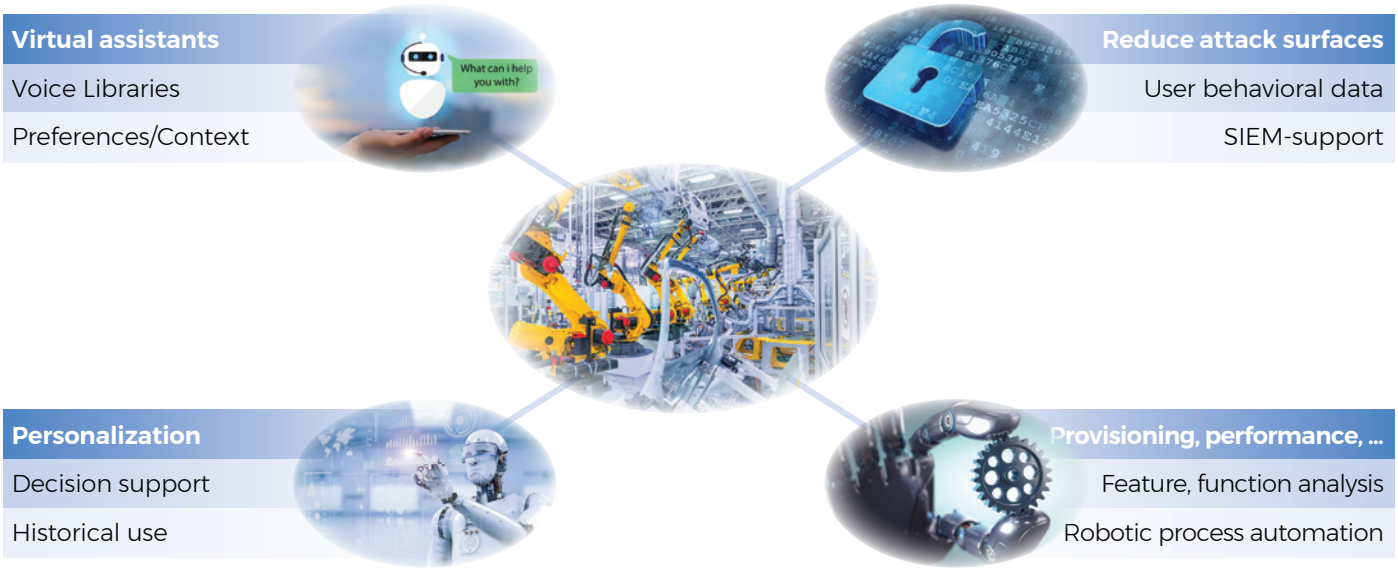
Create application stickiness and improved customer satisfaction with decision support and chatbots

Customization of user experience (UX) will increasingly require far more than rendering to varying screen real estate or enabling users to change around their menus. For applications to differentiate against their competitors, context rules supreme. They must provide guidance on their own best use based on user history and that of their peers in similar roles, point in the process, or any number of factors. Advice will be offered through chatbots, conveyed in text, speech, visuals, or some combination. This type of UX decision can make users more efficient, increase adherence to standard operating procedures, reduce training costs, and improve

compliance. However, ability to handle virtually any data type including time-series data, JSON, and BLOB, NOMAD and limited bandwidth scenarios, and in many cases the ability to run local, unsupervised machine learning algorithms, will dictate that applications have local persistent data storage for clickstreams, preferences selected, voice libraries, access records, etc. Actian Zen Enterprise Server is designed to embed in a stand-alone application but can also act as a multithreaded server for concurrent UX streams, supporting terabyte-range data sets, written concurrently from multiple downstream smart devices or upstream to cloud-based instances of your application.

Build a comprehensive window into your application performance, security, and compliance

As the need to secure applications, rapidly update them, and better manage their operations and performance across multiple data types and platforms grows, the need to instrument and monitor your applications has also grown. Complex business-critical intelligent applications will generate large sets of data internal to the application that are proprietary to the application and to its vendor. Storing with inline processing of that data in a "community database" or a log file does not assure security nor provide the reporting capabilities to extract the data in support of feature, function, performance, or security decisions.



www.actian.com | **Toll Free** +1 888 446 4737 | **Tel** +1 650 587 5500
2300 Geng Rd., Suite 150, Palo Alto, CA 94303

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