

Applying artificial intelligence to store, process and analyze large amounts of data – giving you the insight you need.

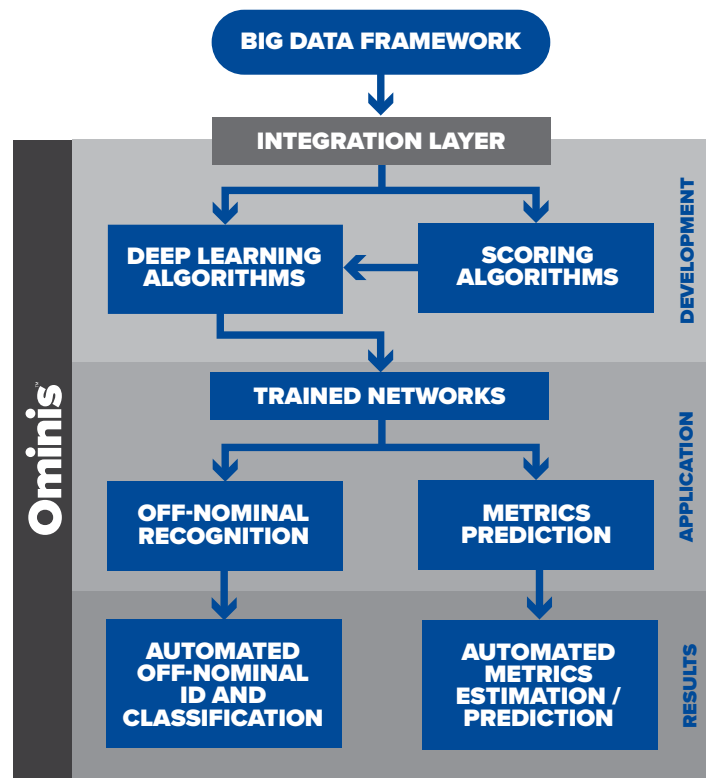
OVERVIEW

Big Data is critical in the assessment and planning for numerous fields to include scientific and business markets. While the strategic, operational and tactical knowledge derived from Big Data is quite valuable, the complexity and immense amount of data generated threatens to overwhelm traditional relational database approaches. Ominis® is an Advanced Data Management and Digital Data Mining platform based on sophisticated Artificial Intelligence (AI)/deep learning algorithms in conjunction with Big Data technologies, which can be applied to a wide range of computing platforms including large, small, and cloud-based architectures.

TECHNICAL

The Ominis Deep Learning algorithms can automatically estimate metrics, generate quick-look reports and provide predictive metrics from large-scale data. The automated processing of the AI networks also provides insight into the data itself to unlock hidden value. Adept at handling large volumes of data, Ominis can reliably identify and detect subtle features and data trends, and provide a set of tools that allow Subject Matter Experts (SMEs) to understand and evaluate data more effectively.

The Ominis hybrid network architecture combines Recurrent Neural Network (RNN) cells with convolutional layers to mimic the reasoning capacity of SMEs. RNNs allow the network to



TECHNICAL (CONTINUED)

learn temporal relationships between input states and the classification task goal. The network can integrate easily into a wide array of existing computational platforms, with minimal impact to the operating efficiency. Designed for large-scale computing clusters, Ominis can scale horizontally and vertically to handle terabyte and petabyte sized data. Ominis performs with excellent speed, efficiency and accuracy, with the architecture providing a proven approach to classifying available data for analysis.

Ominis is a modular, scalable, hardware and simulation agnostic, Big Data driven approach to analyzing and understanding modeling and simulation data.

- *Modular design allows for seamless integration into a wide array of systems.*
- *Data driven approach adapts to the intended use case by design.*
- *Deep learning backed architecture increases the interpretability of highly complex, multi-modal data.*
- *Scalable architecture adapts to the size and scope of the data environment.*
- *Highly optimized architecture can run on a variety of hardware platforms.*
- *Improved analysis speed and integrated operational memory for improved reliability.*
- *User-friendly analysis and visualization tools drastically improve system transparency.*

SECURITY / OPERATION

Ominis security features include role-based login, application authentication and message encryption. Further, the Ominis Application Programmer's Interface (API) operates inside a docker container isolating the API from the rest of the system as an extra layer of security, while ensuring the software does not conflict with other required system dependencies.

Exigent® provides required training on how to interface the Ominis network with the database, and how to understand the output, with onsite training available. A training manual is provided with each Ominis license, and Exigent® provides call center support as well.

REQUIREMENTS

CPU	Intel Core i3 or AMD Athlon 6 (or better)
Memory (RAM)	64-bit System: 8GB minimum 32-bit System: 4GB minimum
Operating Systems	Ubuntu 16.04 or higher RedHat 7
Graphics Card	N/A
Minimum Screen Resolution	1280 x 720 pixels
Storage	64GB

Ominis integrates with existing Big Data infrastructures via an extensible API that includes abstracted interfaces for interaction with any database type. Ominis is delivered via direct digital download or a set of DVDs.

PRODUCT DETAILS

Product Name	Ominis®
Version	2019
Manufacturer Part Number	A2019E
Product Type	Single License
Platform	Linux

As a security-focused company, Exigent provides proven AI-based solutions to protect against threats including guns and drones (also known as Unmanned Aerial Systems or UAS). Today's world is consumed with digital images, but prior to Exigent assessing those images quickly and efficiently was a limitation for security response based on computer vision. By leveraging deep learning and long-short-term memory networks to analyze sensor data, Exigent uses proprietary computer vision technology to extend the benefits of AI to security applications. With the ability to autonomously and accurately detect targets of interest, Exigent is designed to protect lives and property.