

Atos partners with Zapata to deliver complete quantum computing solution to the enterprise

Paris, France and Irving, Texas, November 18, 2019 – Atos, a global leader in digital transformation, and US-based Zapata Computing Inc., a leading enterprise software company for quantum applications, today announced a global partnership to deliver an end-to-end quantum computing solution that combines Zapata’s software platform Orquestra™ (Orquestra) with the Atos Quantum Learning Machine (QLM) to address vertical markets.

The joint solution allows organizations to engage the world’s most difficult computational problems within oil and gas, aviation, finance and pharmaceutical industries with a unique approach ready to deploy and scale to real-world challenges. In addition, Atos and Zapata will also come together to provide comprehensive consulting services to help customers become quickly up-to-speed on the capabilities of quantum computing to solve their business problems.

Orquestra combines a software platform and quantum algorithm libraries to enable the next generation of discoveries — for a wide range of industries including chemistry, pharmaceuticals, logistics, finance and materials science — on quantum computers.

“With Orquestra, we’ve developed a powerful software platform that delivers real world advances in computational power for applications — particularly in chemistry, machine learning, and optimization — to run on Atos’ leading hardware solution,” said **Christopher Savoie, CEO of Zapata Computing**. *“With Atos’ global footprint in over 70 countries, our partnership creates a complete solution for innovative enterprises developing their quantum roadmap for the future and accelerates the introduction and implementation of quantum computing to industries and markets worldwide.”*

Atos QLM is a stand-alone, hardware-agnostic appliance that provides access to an evolutive quantum programming environment and simulates the behavior of any kind of quantum computing technology. Atos has installed the QLM in numerous countries including Austria, France, Germany, India, the Netherlands, the United Kingdom, and the United States empowering major research programs, including [Oak Ridge National Laboratory](#) and [Argonne National Laboratory](#).

“Partnering with Zapata to pair their next-generation of accessible, high-powered quantum software with the Atos QLM allows organizations to break through their computational glass ceilings and aim for new heights in practical business applications,” said **Cyril Allouche, VP, Head of the Quantum R&D Program at Atos**. *“We are also taking all necessary steps to implement quantum solutions by providing appropriate training, onboarding and consulting services to customize the platform to specific business problems.”*

Zapata's Orquestra software already supports several key use cases that can be deployed using the Atos QLM and benefit from its unique circuit optimization features and simulation capabilities, including:

- **Engineering design** – Orquestra provides a quantum method for solving problems related to partial differential equation (PDE) in mechanical and materials engineering. Areas of applications include engine design and optimization, aerodynamics and chemical engineering.
- **Quantum chemistry simulation** – Zapata's algorithms solve physical chemistry problems, such as simulating strongly correlated electronic structure problems where traditional quantum chemistry methods typically struggle in terms of accuracy and efficiency.
- **Quantum enhanced AI:**
 - **Dimensionality reduction** – Many real-world problems involve large data sets with a multitude of features. Zapata has developed a novel set of quantum techniques that allows for mapping high-dimensional data onto low-dimensional latent spaces in ways that are intractable with classical techniques.
 - **Generative models** – Companies using the Atos QLM can leverage Orquestra to train generative models with less data (for instance in digital content creation), improve the accuracy of predictions on sparse datasets (for instance in predictive maintenance) and improve data classification algorithms.

About Atos

Atos is a global leader in digital transformation with over 110,000 employees in 73 countries and annual revenue of over € 11 billion. European number one in Cloud, Cybersecurity and High-Performance Computing, the Group provides end-to-end Orchestrated Hybrid Cloud, Big Data, Business Applications and Digital Workplace solutions. The group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos Syntel, and Unify. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

The purpose of Atos is to help design the future of the information technology space. Its expertise and services support the development of knowledge, education as well as multicultural and pluralistic approaches to research that contribute to scientific and technological excellence. Across the world, the group enables its customers, employees and collaborators, and members of societies at large to live, work and develop sustainably and confidently in the information technology space.

About Zapata Computing

Founded in 2017 and based on technology developed at Harvard University, Zapata Computing is building the leading enterprise software company for quantum solutions to enable the next generation of accessible, commercial high-performance computing. Zapata's unparalleled quantum science team is complimented by leadership and software teams who are experts in delivering high performance enterprise computing solutions.

Press contacts:

Atos North America: Maggie Wainscott - maggie.wainscott@atos.net - +1 903 262 8169
Atos Global/France: Lucie Duchateau - lucie.duchateau@atos.net - +33 7 62 85 35 10
Zapata Computing: Connie Zheng - press@zapatacomputing.com - +1 415 886 7218