

NTT Data

NTT DATA welcomed Dell Services into the family in 2016. Together, we offer one of the industry's most comprehensive services portfolios designed to modernize business and technology to deliver the outcomes that matter most to our clients.

Accelerate Pharmaceutical Research and Development Through Smarter Cognitive Computing

Cognitive Computing Services by NTT DATA

NTT DATA Services

formerly Dell Services

Organize, synthesize and analyze vast amounts of real-world data

Patient data is exploding exponentially. And as it grows, the difficulty of finding the data most relevant to your research grows. You are searching for a needle in a haystack, and the haystack keeps getting bigger.

Demographic information, surgical and interventional history, drug and laboratory data, family history, genomic data, environmental influences — all the information in electronic health records (EHRs) and myriad other sources — can be powerful in your search for new medical treatments. But only if you can easily and quickly organize, synthesize and analyze it.

Cognitive Computing Services by NTT DATA can help. We offer a powerful, holistic arsenal to harness big data, and enable cloud-based collaboration and advanced genomic-based cognitive computing. With these tools, you can mine this vast archive to find patterns that will lead you to new understanding.

And with our access to EHRs through strategic provider/payer relationships, we can help you negotiate access to the latest patient information, enriching your data for faster, more accurate research and development (R&D).

Key benefits:

- Lower research costs and get your products to market faster with powerful predictive modeling that reduces the need for time-consuming, expensive clinical trials
- Use a holistic approach for seamless data integration, analytics and collaboration.
- Access advanced associative memory-based natural intelligence cognitive computing in a 6-10 week pilot, rather than in years
- Leverage patient data through our strategic provider and payer relationships for faster, more accurate R&D

More data sources, smarter cognition

NTT DATA Services is pioneering new paths to discovery through cognitive computing, enabling clients to manage and distill vast amounts of data from real-world evidence (RWE) and other sources. This can create an integrated, evidence-based development model that smoothly unites randomized controlled trials and RWE-based approaches, saving millions and trimming development time by as much as five years.

Through its unique alliance with Intel Saffron, NTT DATA's cognitive computing approach harnesses associative memory learning in which the technology builds on its historical inputs, generating faster, more accurate inferences as it remembers, reasons and explains. This continuous reasoning can accelerate clinical development, cut costs and:

- Inform inclusion/exclusion criteria
- Recruit patients and investigator sites more efficiently and cost effectively
- Monitor safety signals and employ predictive analytics
- Generate better population health outcomes research
- Enable faster and more detailed comparisons of drugs to current standards of care

Seamless integration and collaboration are key to predictive analytics

The life sciences depend on a wide range of data sources in many formats, and that data must be available to physicians and scientists who are often spread across the globe. Our holistic approach to integration, analysis and collaboration allows researchers to use virtually any data they need and use an integrated cloud platform for analyses and sharing. This allows real-time collaboration across multiple research sites and fast, relevant analytics. We can help you decrease the time needed for knowledge acquisition

and increase your speed to market.

The advantages of our holistic approach include:

- Accelerated in silico prediction of drug-target interactions, which is critical in the search for drugs and therapeutic targets
- High-throughput screening of largescale chemical libraries to search for possible compounds to develop
- One-stop, seamless integration
 of disparate data types, including
 whole genome sequences, clinical
 data (such as EHRs and lab reports),
 imaging data from our database
 of 13 billion images, and other
 pathological and lab information,
- Cognitive computing to integrate clinical and genomic data for predictive modeling, generating faster disease biomarker discovery, predictive analytics for drug response and better, more accurate clinical decision support

Next-generation computing for research programs of all sizes

Our cognitive computing approach is designed to be a platform for the next generation of self-learning, knowledge computing solutions that can be affordable for research programs of all sizes. Our cloud-based 'intelligence-as-a-service' foundation is capable of self-learning from data sources that have traditionally not been integrated, allowing more efficient incorporation of both current and emerging data sources.

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Our access to patient EHRs through strategic provider and payer relationships offers a pipeline to relevant information for research and development.

Visit **nttdataservices.com** to learn more.

NTT DATA partners with clients to navigate the modern complexities of business and technology, delivering the insights, solutions and outcomes that matter most. We're a top 10 global IT services and consulting provider that wraps deep industry expertise around a comprehensive portfolio of infrastructure, applications and business process services.

