



## INOVALON LAUNCHES CLINICAL DATA EXTRACTION AS A SERVICE AND NATURAL LANGUAGE PROCESSING AS A SERVICE ON THE INOVALON ONE™ PLATFORM

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*Capabilities Enable Fully Automated Capture of Structured and Unstructured Clinical Data at Large Scale, Improving Quality and Eliminating Expensive and Time-Consuming Processes for Clients*

**BOWIE, Md. – April 10, 2018** – [Inovalon](#) (Nasdaq: INOV), a leading technology company providing advanced, cloud-based platforms empowering a data-driven transformation from volume-based to value-based models across the healthcare ecosystem, today announced the launch of Clinical Data Extraction as a Service (CDEaaS) and Natural Language Processing as a Service (NLPaaS), two new offerings of the Inovalon ONE™ Platform.

Inovalon's CDEaaS offering identifies and extracts patient data within the healthcare ecosystem and aggregates it autonomously in a digital medical record format that is both CMS and NCQA compliant. The new NLPaaS solution enables clients to analyze non-structured data within clinical medical record data for initiatives regarding clinical quality, diagnosis, disease progression, outcomes, treatment, risk, compliance, waste, and a host of other complex healthcare topics.

The collection, review, and analysis of medical record data is critical to many organizations across the healthcare ecosystem. Market-wide there are an estimated 100 million medical record reviews undertaken per year for activities such as fulfilling regulatory compliance requirements; documenting clinical quality results to achieve improved quality incentives for program performance; risk adjustment reimbursement documentation support; fraud, waste, and abuse audit programs; clinical trials; and post-market surveillance and adverse outcome investigations for pharmacological and medical device products. Traditionally, organizations rely on highly inefficient, labor-based approaches to conduct the process of collecting and reviewing medical record data. Even in the case of data within electronic medical record systems, the absence of interoperability, data structure standards, and access challenges serve as barriers to efficient review and autonomous analysis. In addition to the actual collection and review process, project management and logistical coordination with clinical facilities can add numerous personnel requirements and weeks to project execution, and a large financial expense. Further still, the use of human labor in these efforts impedes inter-rater reliability and accuracy, is prone to human error, and introduces other quality control challenges.

The application of Inovalon's CDEaaS and NLPaaS solutions allows clients to avoid significant labor expenses and reduces the time required to obtain clinical data records from weeks down to minutes while also delivering superior accuracy and consistency. Trained on millions of clinical

cases, machine learning hones the sensitivity and specificity of Inovalon's NLPaaS algorithms, producing superior outcomes compared to traditional human review processes.

After evaluating available solutions within the marketplace, Inovalon developed its CDEaaS and NLPaaS technologies in-house, leveraging its extensive data assets and healthcare ecosystem connectivity with electronic healthcare record (EHR) systems, health information exchange (HIE) systems, and both cloud-based and direct connection interoperability to achieve broad reach. Inovalon began applying these technologies within its own operations during 2017, achieving an annual run-rate reduction in operating costs of more than \$15 million by year end.

“Healthcare organizations are under significant pressure to achieve both superior quality and strong financial performance. The achievement of fully autonomous clinical data aggregation and unstructured data analysis is a significant advancement for those needing to apply medical record data to reach their corporate, regulatory, clinical, research, and financial goals,” said Eric Sullivan, senior vice president of innovation and data strategies at Inovalon. “By making CDEaaS and NLPaaS available directly to clients and partners, we are opening up new avenues for the marketplace to benefit from our expanding connectivity and analytical capabilities.”

Clients wishing to use CDEaaS can provide Inovalon the desired clinical location of data to be extracted, or elect to have Inovalon's datasets inform the location of desired data. Many patients are seen at multiple clinician sites during any one year with recent counts for Medicare Advantage patients, for example, being seen by 6.2 different physicians per year on average and with each such physician often seeing patients in multiple locations. CDEaaS returns digital renderings of extracted data in CMS and NCQA compliant files for client download. Clients wishing to apply NLPaaS can supply their own digital files or select the output of an Inovalon CDEaaS process for analysis. Upon selecting the desired NLP analysis (e.g., quality data, disease progression data, risk data, etc.), the NLPaaS processes files within seconds, making available the resulting analysis for download. Clients are able to select CDEaaS and NLPaaS independently, or in combination with each other and other functionality components of the Inovalon ONE™ Platform.

The type of connectivity needed for CMS and NCQA compliant digital file creation via Inovalon's CDEaaS solution is unique, and significantly more complex than simpler connectivity for data such as medical claims. Today, Inovalon's CDEaaS can autonomously reach the data of approximately one in every three patients within the United States. With Inovalon's rapidly expanding connectivity, this number is expanding nearly every day. With feedback automatically provided within minutes regarding which patient medical record data were able to be accessed, Inovalon's CDEaaS and NLPaaS can be inserted as a first step at the beginning of any organizations' traditional medical record data aggregation and analysis initiative, reducing costs, time, and inaccuracy – with a larger portion of such initiatives being able to be addressed through Inovalon's cloud-based approach with each subsequent request.

## **About Inovalon**

Inovalon is a leading technology company providing cloud-based platforms empowering a data-driven transformation from volume-based to value-based models throughout the healthcare industry. Through the Inovalon ONE™ Platform, Inovalon brings to the marketplace a national-

scale capability to interconnect with the healthcare ecosystem, aggregate and analyze data in petabyte volumes to arrive at sophisticated insights in real-time, drive impact wherever it is analytically identified best to intervene, and intuitively visualize data and information to inform business strategy and execution. Leveraging its platform, unparalleled proprietary data sets, and industry-leading subject matter expertise, Inovalon enables the assessment and improvement of clinical and quality outcomes and financial performance across the healthcare ecosystem. From health plans and provider organizations, to pharmaceutical, medical device, and diagnostics companies, Inovalon's unique achievement of value is delivered through the effective progression of "Turning Data into Insight, and Insight into Action®." Providing technology that supports a client base approaching 500 healthcare organizations, Inovalon's platforms are informed by data pertaining to more than 932,000 physicians, 455,000 clinical facilities, and 240 million Americans. For more information, visit [www.inovalon.com](http://www.inovalon.com).

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