

# The LifeOmic Precision Medicine Platform™

## Secure and Accessible Patient Data – In The Cloud

LifeOmic is a strategic technology partner of the Indiana Precision Health Initiative and is providing the secure HIPAA-compliant LifeOmic Precision Medicine Platform™ where data for millions of Indiana patients will soon be stored and analyzed in the cloud.

Precision medicine is all about data. LifeOmic makes it easy to assemble both genotypic and phenotypic data for hundreds, thousands or even millions of patients and process it through a flexible application workflow. As the word 'platform' implies our services are exposed by a Restful API that allow them to be extended as well as incorporated into other applications. For example, we've incorporated the Fast Health Interoperability (FHIR) API for integration with existing Electronic Medical Record systems and the full spectrum of secure cloud services can be accessed from any standard web browser.

### Consent Management

Our platform makes it a breeze to obtain a patient's consent using electronic signatures to track exactly what they've consented to. Consent forms and the important information about them are stored securely in the cloud. This data can be queried at any time to identify patients consented for re-contact and facilitate recruitment for additional research or clinical trial enrollment.

### Clinical-grade Whole Genome Sequencing, Interpretation and Reporting

We provide optional DNA sequencing services, including whole genome sequencing. Using our state-of-the-art Illumina NovaSeq 6000s we can handle thousands of blood or saliva samples for research or clinical use. And once we've sequenced the patient's sample we use sophisticated software to call variants using the latest human genome reference and cutting-edge bioinformatics algorithms. Raw sequence reads, alignments and variant files can be stored inexpensively for years within our secure cloud platform and reanalyzed as the field evolves and genomic knowledge increases. We also offer medical grade clinical reporting from a patient's variant file to assist in physician-guided treatment decisions.



LifeOmic is a technology company headquartered in Indianapolis, IN with software development offices in Research Triangle Park, NC and Salt Lake City, UT.

We're a private company owned in part by Indiana University/IU School of Medicine (the nation's largest medical school) and Regenstrief Institute (a premier medical informatics institute dedicated to fostering innovation in healthcare).

LifeOmic helps research organizations and clinical teams collect information about large numbers of patients in order to guide precision medicine and make new discoveries.

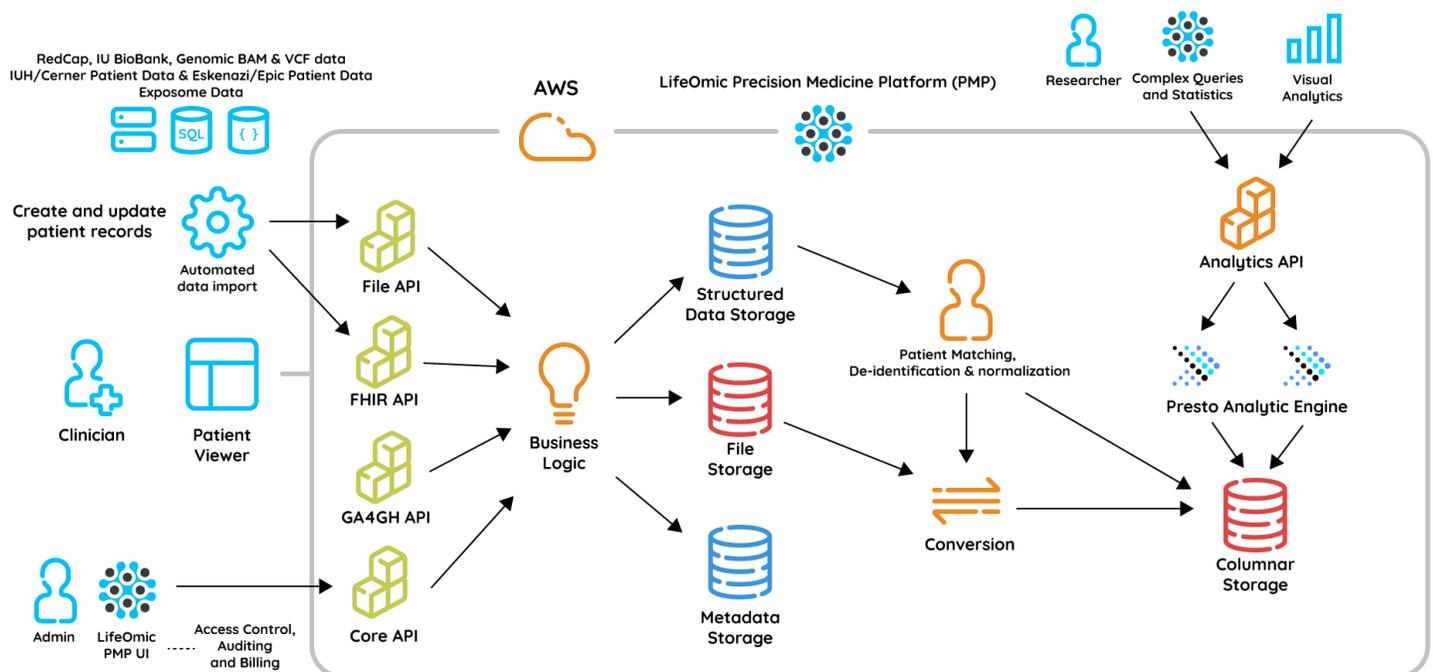


Diagram showing the LifeOmic Precision Medicine Platform as the 'Data Commons' for the Indiana Precision Health Initiative (Design Reference: 11/1/17)

## Analytics and Machine Learning

One huge advantage of our Precision Medicine Platform is that you can upload all types of patient clinical information -- lab results, medical images, doctor visit results — you name it. We make it easy to store all this medical information right alongside any sort of big Omic data and do so inexpensively for months or years

Both phenotypic as well as genotypic patient data is automatically indexed as it's added to the platform. And big data tools provide powerful analytics capabilities, including machine learning. Ultimately the LifeOmic Precision Medicine Platform allows the long-term collection and storage of all sorts of patient data.



## No-obligation Cloud Subscription Service

LifeOmic charges competitive rates for clinical or research-grade whole genome sequencing and offers a simple monthly subscription for our cloud services. Pay for what you use and quit at any time. All the data you upload belongs to you and can only be accessed by the authorized users your organization designates.

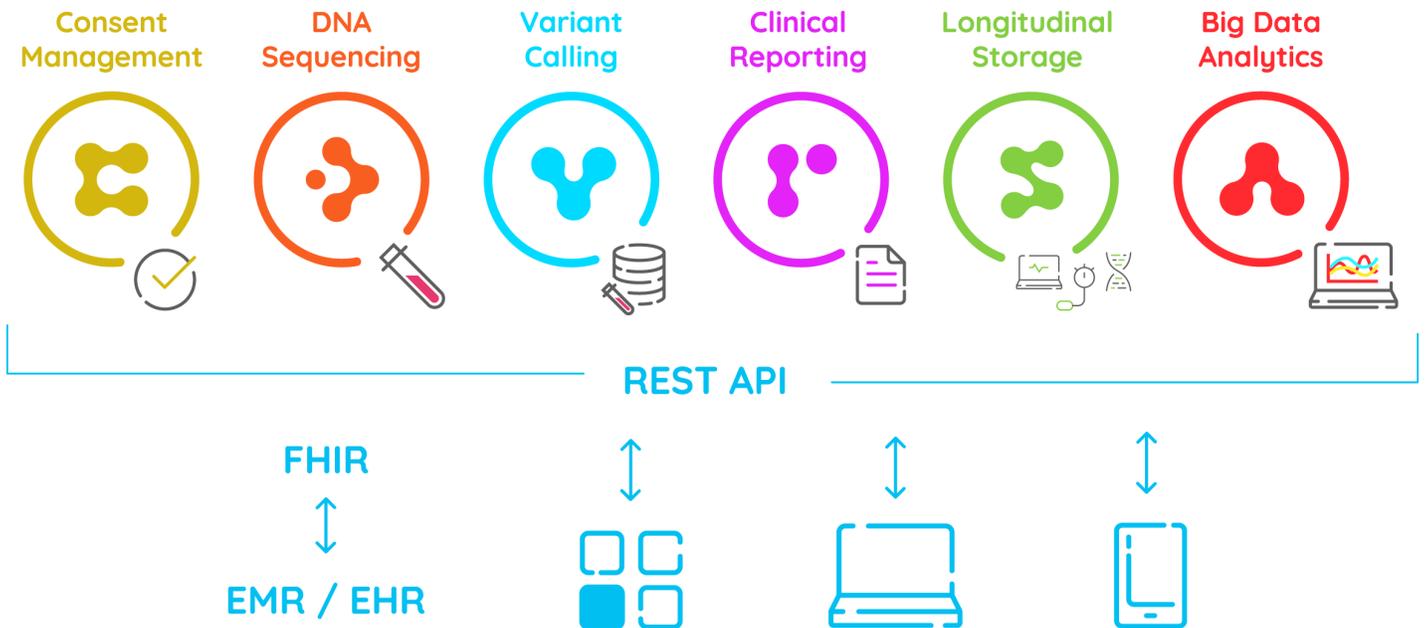
Our platform includes sophisticated single sign-on and authentication capabilities that can be integrated with your organization's Identity Management. Using our REST and FHIR APIs you can access your data and our services using our standard web interface or your own application - including mobile apps.

The LifeOmic Precision Medicine Platform can alleviate the pain and expense of in-house IT systems - allowing your organization to focus on what it does best -- making discoveries and working to make the world a better place.

## Use What You Want - One Service or Full Workflow

One important thing to understand is that all the components of our platform are separately available. For example you can have DNA samples sequenced by another provider and upload them to our platform for further storage and analysis.

As your data collects over large numbers of patients your analytics become even more fruitful — potentially leading you to new discoveries and therapeutic breakthroughs. Easily answer questions like: **'How many men in our dataset are over 50, have been diagnosed with prostate cancer, have PTEN germline mutations and are consented for re-contact?'**



LifeOmic Strategic Partners

