

BioSoft Integrators Optimizing Next-Gen Sequencing Data Analysis

While working for a large sequencing company, Henry Marentes, an entrepreneur and technologist, was involved in a project that devised HPC solutions for the analysis of data coming out of sequencers. This experience allowed Marentes to understand the challenges prevalent in the HPC landscape pertaining to genomic analysis. After having worked in the industry for almost three decades, Marentes laid the cornerstone of BioSoft Integrators—a company that caters specifically to the genomic data analytics processing needs of laboratories. Most service providers in this domain combine off the shelf components, piece them together, and position it as a next-gen sequencing solution, often neglecting key aspects such as parallel and scheduled



Henry Marentes

optimized processing, storage and archiving for faster retrieval, and more. As the HPC marketplace evolves, a plethora of next-gen sequencing (NGS) companies are inundating the ecosystem with diverse technologies for genomic processing. Therefore, it is quintessential

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for organizations operating in this arena to bring out solutions that are all-inclusive, scalable, and quick. This is where BioSoft Integrators steps in with a host of solutions—from laboratory informatics and custom software integrations to high performance computing—that leverage the best-in-class computing clusters that take care of genetic analysis data processing needs. “We take tier 1 components that are available in the market, combine them, perform rigorous factory testing in advance, and pre-load all the necessary analysis software in order to accelerate the install and optimize the process of analyzing data,” says Marentes, co-founder and CEO, BioSoft Integrators.

BioSoft Integrators has devised a portfolio of HPC systems that assists laboratories in computational-heavy analysis by aiding them with clustered processing and shared data repositories, such as genome assembly, deep sequencing, metagenomics research and hybrid analysis. Since technology is proliferating at a faster rate with computing power rising from 96 to 288+ core clusters, BioSoft Integrators’ HPC solutions feature high-performance servers and allow organizations to have



network attached storage between 100 to 400+ TB. While such offerings open-up new horizons for storage management, Marentes believes that flexibility pertaining to the number of cores, speed of the cores, and analysis software are key. To that end, BioSoft Integrators installs open source analysis packages in advance, performs verification tests, and ensures that they run at optimal speeds. BioSoft Integrators’ HPC Solutions includes White Glove support which ensures that customers are reliably processing data 4 hours after installation.

BioSoft Integrators’ HPC Solutions can be easily integrated or reconfigured and tuned specifically for multiple high-throughput sequence-analysis workflows. The

company provides full-blown IT support to the client. “We essentially become the extension of our clients’ IT team for any issue related to HPC and NGS,” Marentes adds.

While elucidating further about BioSoft Integrator’s solutions, Marentes sheds light on a customer success story of one of their clients that established an entire lab by purchasing a huge chunk of NGS equipment. The major challenge was the huge amount of data that all the equipment was going to divulge and there were no service providers that could consolidate and analyze all of it and present it on a single interface. Enter BioSoft Integrators with its turnkey HPC solutions portfolio that configured the core cluster and simplified the analytics puzzle that

the client struggled with. Moreover, BioSoft Integrators equipped the client with extensive IT support to mitigate the challenges arising from such a setup. As a result, the client enhanced its operational efficiency while augmenting its productivity.

Going forward, BioSoft Integrators are constantly upgrading its solutions as the datasets, and its analysis needs mushroom each passing day. The firm is currently invested in testing new datasets that can add value to their portfolio of solutions. Moreover, BioSoft Integrators endeavors to increase the awareness about the agility, flexibility, speed, and cost efficacy that local HPC solutions offer compared to cloud-based storage solutions. [CR](#)