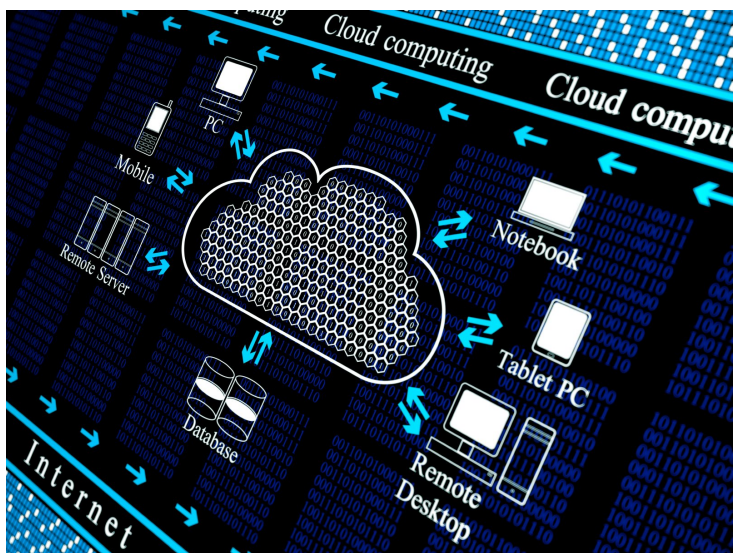


## Cloud computing to drive paradigm shift in Life Sciences

15 February 2016 | News

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The centre will provide expertise in cloud computing technologies and specific platforms including advanced Java, Spring, .NET, Python and statistical programming frameworks.

Currently the facility employs more than 250 professionals including software engineers from prestigious institutions and scientists with doctoral degrees.

This team is now building next-generation software, acting as an extension to Thermo Fisher's global software R&D teams.

The software centre of excellence is Thermo Fisher's first such facility globally.

According to the company's press release, cloud computing has the potential to significantly change lab workflows, and facilitate access to powerful data analysis techniques.

Mr Mark Field, VP & CTO, Thermo Fisher, who was in India on the occasion, told BioSpectrum, "The plan of erecting the centre has been realized after three years. Cloud computing and Internet of Things (IoT) are causing incredible disruptions across the world. The former has already made a stand in India. I have been in the software industry for 20 years, and India stands at the very forefront in making software and delivering the capabilities to the world. Software is a global phenomenon."

Mr Amit Chopra, MD, VP/GM, Thermo Fisher Scientific India, added, "Indian scientists are adopting cloud computing technology, and the adoption rate is going to pick up rapidly. This technology enables scientists to leap forward in pioneering developments and be at the forefront."

As a result of using cloud technology, something such as when a powerful genetic analysis software is released, it can immediately be deployed in the cloud, enabling scientific communities around the world to quickly and easily access the new capabilities.

Mr Field added, "We have hundreds of users of this technology in India -- from prestigious institutes to commercial organizations -- and they are willing to experiment and play around a little bit before engaging in it fully. Cloud-based computing solutions have already been deployed in the US and Europe on a massive scale. This trend will soon catch up in India, and we are already seeing it coming."

Cloud computing in the Life Sciences space is expected to make labs more productive and collaborative.

"In the next 5 years, the cloud will become an innovation platform, much like the Internet. In the future, many incredible innovations and impossible things are going to come out of cloud usage," opined Mr Field.

Through the cloud, thousands of labs and scientists are expected to get connected and act collaboratively, bringing in amazing capabilities and creating major paradigm shift in the Life Sciences space.

"The cloud," Mr Chopra noted, "will change how scientists conduct research. We are providing them the platform to leverage and drive faster research solutions."

According to Mr Field, it is way too early to predict the market size for cloud technologies. He said, "As scientific instruments become more and more sophisticated, the amount of data these instruments produce will far exceed the analytical capabilities of labs around the world. And scientists alone will not be able to manage all this data."

Mr Chopra explained with an example how the cloud can be the point of origin for futuristic innovations.

"Traditional fast-moving consumer goods (FMCG) and retail industries are being transformed by emerging ecommerce companies who have created entirely new business models. This is exactly what we are trying to do in the cloud space. In the next 10 or 15 years, we will see a radically transformed ecosystem in Science. The Internet, for example, transformed online education, opening up online classrooms, with world-class universities offering their programs to hundreds and thousands of students. Now we can envision the possibilities in scientific innovations that cloud computing can provide to Science," he said.