

Predix Cloud could be the next game changer



By [Peter Davidson](#)

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GE has had a hand in building machinery and equipment for a variety of industries including healthcare, aviation, transportation and manufacturing. Having had a hand in creating these assets, they are uniquely placed to be aware of the vast amounts of data generated by the sensors in these machines and they also know that analysis of this data can be used to predict failures and correct them before they cause downtime, which naturally leads to lost revenue and confidence. This lead to a new service called the Predix cloud which is likely to be the wave of the future.

The wave of the future



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The cloud has been around for quite some time now and though it started out simply as a storage vehicle, it has expanded to be used for business continuity, [cloud hosted phone systems for business](#) and application development. Software as a Service is another feature of the cloud as many software companies are offering a lease of their software based in the cloud. The difference is that Predix is an Infrastructure as a Service.

Modern machinery is run by computers. Sensors feed data to the chips and the on board processors evaluate the data fed to it and adjust its performance accordingly. You have only to look at your car to see this process in action. The air gas mixture is determined by a chip, the idle speed is regulated by a chip and now your brakes, steering and much more are regulated by a chip and it all generates data that can be used to improve the car in future designs or track problems that can generate fixes to the benefit of the owner of the machine.

Predix aims to take the machine data that is generated by the sensors in these modern marvels and on a constant basis, analyse and evaluate that data and offer predictions of its future behavior. It will take in data, such as the operating temperature, the workload and the composition and predict what impact changes in these factors will have on the equipment. In addition, Predix will have a development arm that allows customers to develop their own applications, making the service scalable for individual needs.

Security at the top of the list

GE is well aware of the [flaws of the internet](#) and also the various regulations that business and individual industries must operate under. With this in mind, Predix was developed accordingly with security at the top of the list.

Predix is designed in layers and security was designed with the assumption that each layer has already been breached. With this type of structure, each layer is protected independent of the layers above and below it. In addition, the software acts like a gated community. If you are not a member of the target community, in this case industry, you are not allowed on the platform. This way the only members of the cloud community are those who are members of the land based community which reduces the number of people with access to the system. Data on the Predix cloud will be encrypted and data traveling between the asset on the ground and the cloud will also be encrypted.

Adjustable to data types

Predix cloud will also be scalable, which is a requirement for such a service. It is dealing only with machine data and not all machine data is alike. The data generated by the sensors for an oil rig in the gulf are far different than the data generated by a locomotive in Canada. For the service to be useful, it has to be able to adjust to the varying types of data and analyse it accordingly. It, therefore, is designed to accept the variances in velocity of data exchange, the volume and the variety of

the industrial data.

Predix aims to use its global [knowledge of industry regulation](#) to help businesses in the governance of their companies, which will help to cut down on compliance costs. And for businesses that already use cloud computing, Predix cloud is capable of interoperability with a variety of cloud environments and will be able to data exchange within current cloud solutions.

Developers will have the ability to view their operating system and identify those with access. With this view, machine applications can be deployed anywhere because the people with access can be tracked and their movements in the system identified.

ABOUT PETER DAVIDSON

Peter Davidson is a senior business associate and strives to help different brands and startups to make business decisions and strategies efficiently. He loves to share his views on the latest technologies and applications through his well-researched content pieces.

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