

## Factory of the Future - Migrating Multiple Sensor Data to the Cloud -

The 'smart' factory of the future will be powered by actionable intelligence extracted from petabytes of data gathered from a multitude of IoT-enabled sensors.

Data will drive business efficiency, risk reduction and quality improvements. It will also help identify and create new business and revenue opportunities.

CompressionX is the lossless compression solution which will play a key role in the 'Edge to Cloud' network. In a recent simulation, it achieved 91% compression on multiple sensor data, making it cost-effective to stream ALL data collected from IoT-enabled sensors to the Cloud for Big Data AI and Machine Learning algorithms to harvest all the value from those data.

Working with partners, SISP's CompressionX lossless compression solution will help the full potential of the data-driven factory of the future by making real-time streaming of sensor-derived data cost effective.

### **The problem & the opportunity**

The factory of the future will be a networked system capturing petabytes of manufacturing data on processes, inventory, equipment, tools and products.

To realise the smart factory's full potential requires a system where volumes of sensor-derived data can move in real time to the Cloud, where analytics can transform data into actionable business insights.

Real time transfer of data to the Cloud, as well as reducing the costs of storage and processing in the Cloud, are critical to meeting the needs of the smart factory of the future.

SISP's CompressionX is the answer, enabling real time access to the value extracted by applying Cloud-based analytics to sensor-derived data in smart factories.

## The Solution

CompressionX will be a vital component in meeting the exponentially expanding demand for real time transmission between smart factories and the Cloud and 'in-Cloud' processing.

CompressionX enables the collection of data from multiple sensors for real-time transmission. CompressionX significantly out-performs other lossless compression solutions. SISP's CompressionX has the following unique combination of features:-

- Modelled compression
- Fast prefix encoding
- Flexibility
- High-compression ratios
- Rapid decompression.

CompressionX will enable you to achieve significant reductions in storage costs, as well as reductions in 'in-Cloud' processing costs.

## Meeting the Industry Need

On the network at the smart factory, sensor data is losslessly compressed into SISP format and then migrated to the Cloud with the following benefits:-

- Savings in time and costs of migration with less data to transmit
- Savings in storage costs as data remains in compressed SISP format in the Cloud
- Real-time upload of data for time critical applications.

Once in the Cloud, the following benefits are achieved:-

- Reductions in memory use once in the Cloud because compressed data can be read sequentially in compressed format
- Instant access to data due to rapid decompression
- AI-driven analytics algorithms can be applied to ALL sensor-derived data, today or in the future.

The smart factory of the future will be data driven. As we move towards a world where all gathered data is instantly accessible from anywhere, the winners will be those who create 'meaningful data', gaining actionable intelligence and value from sensor-derived data by having all data available for AI and analytics.

The benefits will range from reductions in machine down time and improved predictive maintenance and asset performance managements to increased profitability and the creation of new business revenue streams. With our



partners, let us enable real time access to the value extracted by applying Cloud-based analytics to all your smart factory data.

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