

# EXECUTIVE SUMMARY

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The ability to see, analyze and understand the world in real time is a uniquely human capability. They assimilate countless facts, ideas and events, and make sense of the world by associating these inputs in memory. The brain finds similarities between people, places and things, using reasoning from the past to understand the present and to anticipate the future. In the business world, these abilities let people prepare for future outcomes to maximize profit while minimizing costs. Until now, such capabilities were limited to human beings, but the power of cognitive computing platforms is bringing computers closer to learning and reasoning like people.

Intel® Saffron™ Cognitive Solutions bring to the Internet of Things the incredible ability of the brain to find meaning in data, but at a scale that far exceeds human capabilities. With each new experience, the solution continuously builds memories, incrementally learns from outcomes and makes new connections. Saffron Cognitive Solutions help businesses benefit from the knowledge in their data by shortening the time to insight for faster and more comprehensive decision making.

This paper, organized in four sections, explains how the Saffron Cognitive Solutions' works and describes the methods to change the signal-to-noise ratio in the analysis process including:

## 1. The Principles of Natural Intelligence

If technology is to assist in transforming data into information, and information into actionable knowledge, then it needs to be intuitive.

## 2. Associative Memory and Cognitive Distance

Saffron Cognitive Solutions unify data points in its associative memory and finds patterns in the data using similarity analysis.

## 3. Entities and Networks

Saffron Cognitive Solutions' network of networks are more natural, like independent agents that hold their own memories and express certain links to each other, depending on context.

## 4. Conclusion

The Intel® Saffron team has developed the technology of natural intelligence. Today, Saffron Cognitive Solutions are applied to address serious problems for government and corporate enterprises. However, this is only the beginning of what is possible.