

The Rise of the Machines

by Roy van de Water



What is the
Internet of Things?



Smart Devices,
Connected to Everything









“The Internet of Things has the potential to change the world, just as the internet did. Maybe even more so.”

~ Kevin Ashton

Today: 1.9B connected devices.

50B estimated by **2020**.

By **2020**, the IoT market value is predicted to be between **\$3T** and **\$14T**

Internet of Things:

What If, We Deliver a 1% Improvement?

Industry	Segment	Type of Savings	Estimated Value Over 15 Years <small>(Billion nominal USD)</small>
Aviation	Commercial	1% fuel savings	\$30B
Power	Gas-fired Generation	1% fuel savings	\$66B
Healthcare	System-wide	1% Reduction in System Inefficiency	\$63B
Rail	Freight	1% Reduction in System Inefficiency	\$27B
Oil & Gas	Exploration & Development	1% Reduction in Capital Expenditures	\$90B
Total			\$276B

Source: "Industrial Internet: Pushing the Boundaries of Minds and Machines," GE, November 28, 2012

IoT & Business Automation

“Everything that can be automated,
will be automated.”

~ Robert Cannon

Automation

Let machines do the
hard work



“We are going to be completely
unemployed as muscle-working
machines”

~ Buckminster Fuller

Machine Learning

Anomaly detection



Machine Learning

Event prediction



Machine Learning

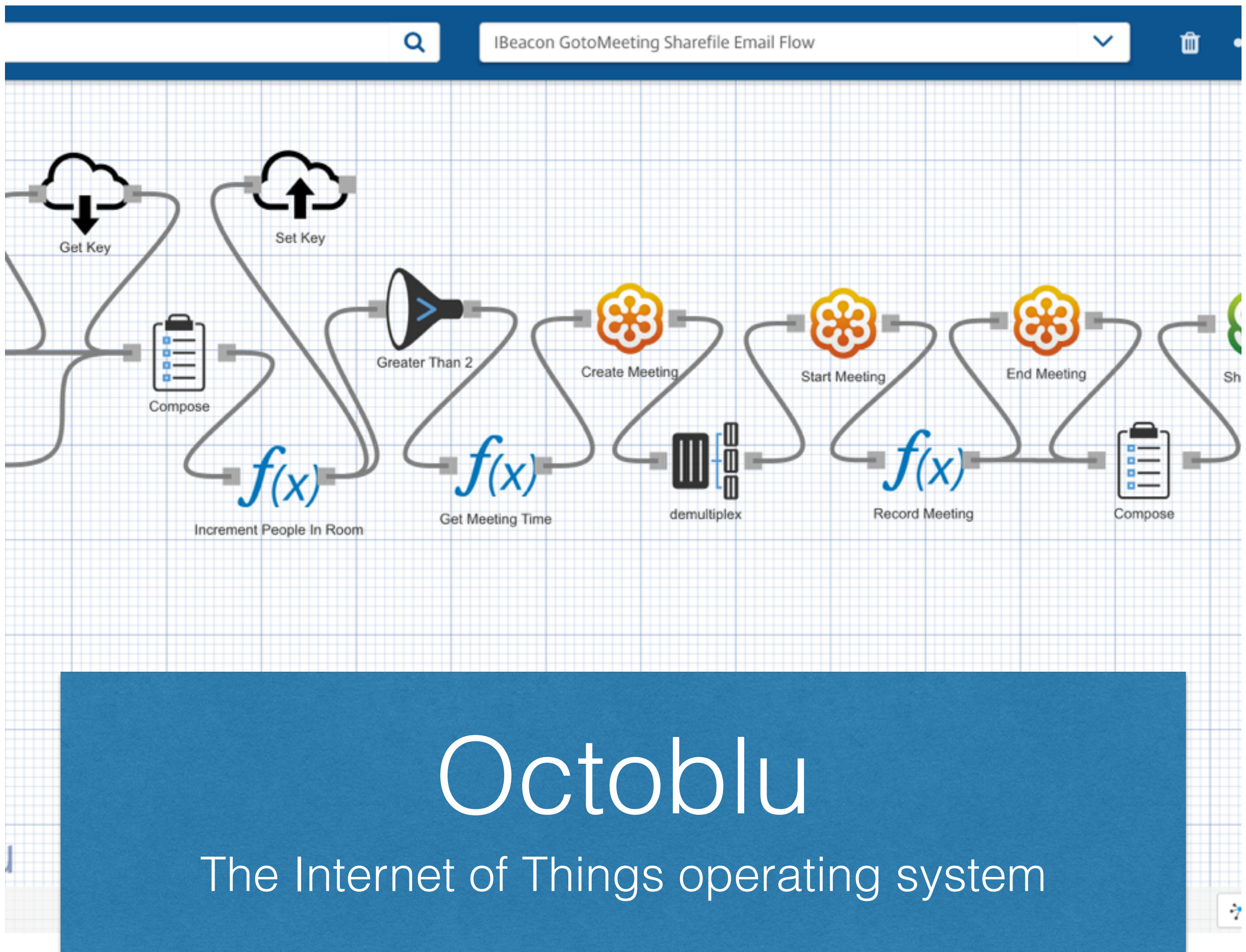
Context aware systems



Where do humans fit in?

Human Interaction

Humans have the power of personality and creativity, automate the rest.



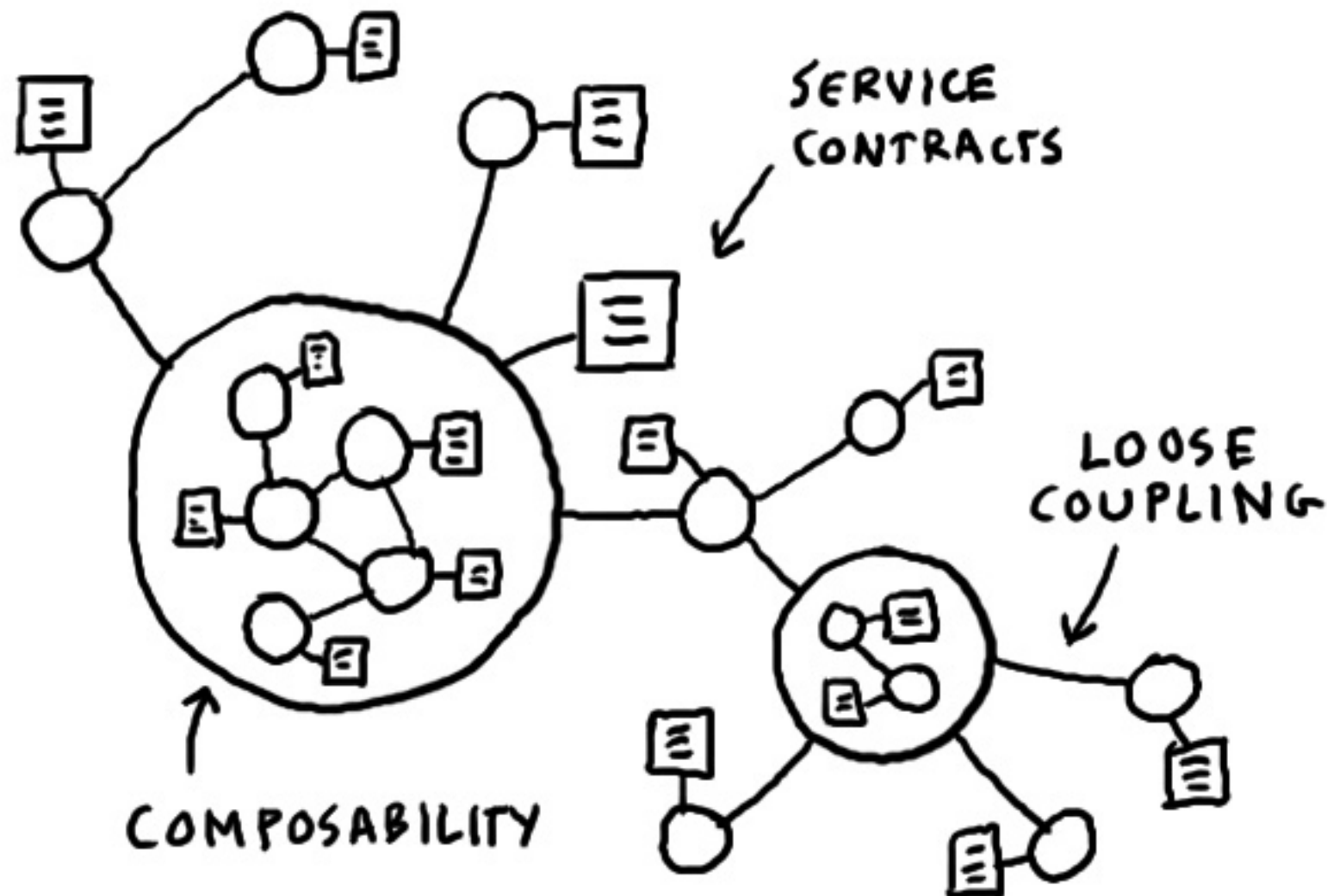


Talking to devices is hard, we make it easy

How to IoT

Be Lazy

SERVICE ORIENTATION



Microservices

Complex applications written in small independent programs

Machines cost far less
than humans



Make the world a
better place

Roy van de Water

UUID: ~69286630-0862-11e4-b1c7-4f6f6e31e7b4

Twitter: @royvandewater

Email: r@octoblu.com

Slide Deck available at
<https://github.com/royvandewater/rise-of-the-machines-talk/>