IoT Heap
Enterprise cloud platform

IoT Heap cloud computing

Everything you need on a single heap

PLATFORM OVERVIEW
Core services architecture

What it is all about

Today, there are so many devices that can be connected to the internet and there will be more and much more of them in the coming years. Those all devices are commonly called as Connected Devices and are connected in number of different ways. Wirelessly, over the wire, using different communication protocols, using private or public networks; All of them have one thing in common. Connected devices are sending data. And now with those connected devices sending data, suddenly we have Internet of Things.

The changing shape of the digital world as we know it made us to realize how important user experience really is. In order to overcome this key barrier we have put significant efforts to provide simplicity to our users.

Data Source	Collection	Processing	Presentation
Industrial solutions	**Security Management**	**Transform and Historize**	Custom Portal & Clients
Oil&Gas RPMA devices	- Device and Data Authorization		Predictive Analytics Dashboards and Charting
Low Powered RTOS devices	- Transport security - Device provisioning - Based on NIST SP 800-53	**Alarms and Events**	Data Analytics
Residential solutions	**Data Management**		Real Time Service Management
Retail devices - Water and gas monitoring	- Publish/Subscribe - Exchange based content distribution - Telemetry lifecycle	**Protocol conversion**	Generate insights to create new business values
IP capable devices (Windows and Linux)	**Service Hypervisor**		
Applications	- Networking monitoring - Resource pool management - Horizontal and vertical scaling		
AES-128 Based CMAC + TDEA-192	VPN + Isolated Service Context	Hypervisored Inter-Service Communication	SSL-256 + OAuth 2.0

Joining Internet of Things and smart way of collecting, processing and presenting data we created software solution. We simply took Internet of Things with all of the data coming around and we put it on the single heap. That heap is a platform able to connect to different data sources, collect and manage data securely, process data, transform it, present it and forward in number of ways. It is simply IoT Heap.
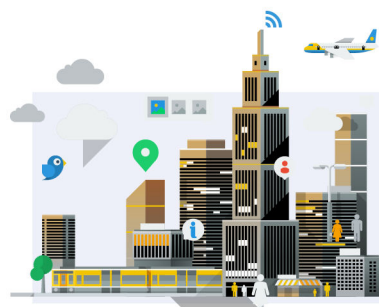
With deep undestanding of IoT and M2M we have ensured that each component is compatible and well integrated with all peripherals and devices in the network system.
For more information visit http://www.sky-puzzle.com

IoT Heap cloud computing
Everything you need on a single heap

THE REAL CHALLENGES
Problems we solve

## Simple way of resolving complex problems

The Internet of Things (IoT) or The Internet of Everything is the network of objects in a physical world accessed through the Internet and IoT Heap is a platform that enables this access.

Objects in physical world are equipped with different communication capabilities and contain different embedded technologies. Those objects interact with the external environment and communicate.

IoT Heap platform provides you information everything those objects sense, measure, detect no matter their communication path, or embedded technology.

Real-time problems, real-time solutions

Provision and deploy distributed industrial technology stack solutions for controlling and monitoring various IoT assets. Users can scale level of services needed as well as number or modules used.
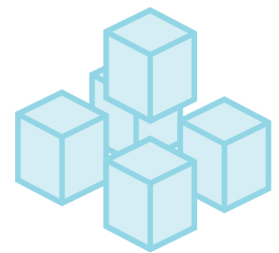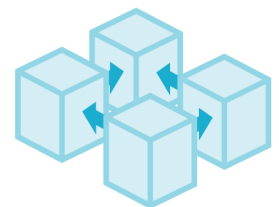
Enhanced security model

Granular security model provides more flexible, and dynamic security controls than traditional enterprise security models..

Elastic Ubiquitous Connectivity

Effortlessly connect to multiple devices or protocols, and achieve secure and reliable data flow, right out-of-the box.
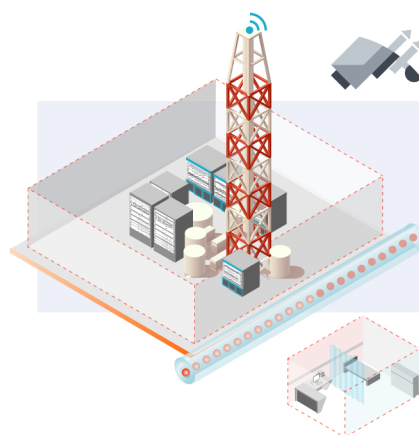
Infected equipment, unauthorized personnel, and unauthorized access are affecting the security status of any industry. As such, uninterrupted operation of this vital equipment is imperative for profitability.
For more use cases visit http://www.sky-puzzle.com

IoT Heap cloud computing
Everything you need on a single heap

SYTEM INTEGRATION
Connect, access and control

Remote monitoring and secure control

IoT Heap offers benefits of cloud computing, data acquisition, remote control, and comprehensive data analytics gathered and processed from objects in a physical world, regardless of how big your place of interest is; whether it is a well, building, a city, pipeline, power system, a county or the whole world.

IoT is connecting new places to the Internet. When an object in a physical world can represent itself digitally, it can be monitored and possibly controlled from anywhere.
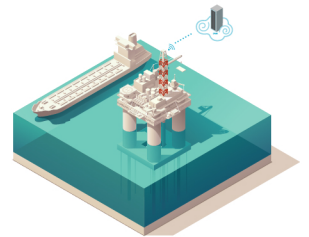
Industrial IoT the modern DCS

The role and function of the DCS remains critical to safe, efficient, quality production, but now it must also support the enterprise and IIoT by functioning ever more effectively as the plant's central nervous system.
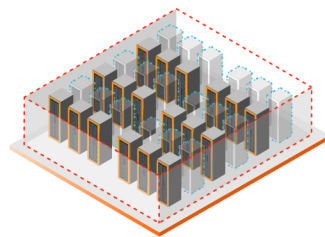
The value comes from the insights you can glean

Organizations are struggling to make the best decisions regarding the data volume and complexity created by the vast numbers of sensors, embedded systems and connected devices now on the network.

Integration With Existing Solutions

By implementing a wide variety of industry protocols like Modbus, OPC, IEC 60870-5-10X, IEC 61850, we provide the ability to connect and integrate both existing and new devices.

Open connectivity simplifies integration with business and information systems.
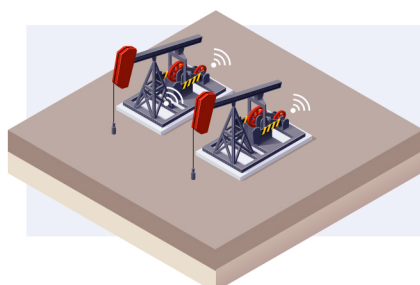
Wired or wireless sensors able to provide measurements and/or sensing directly or indirectly over the internet can be gathered into IoT Heap and therefore presented and saved for future analysis.
For more use cases visit http://www.sky-puzzle.com

IoT Heap cloud computing

Everything you need on a single heap

Scalability for high volume applications

Main features of IoT Heap platform are flexibility, efficiency, scalability, blazing performance, extremely quick provision and usage simplicity.

IoT Heap is flexible regarding different end devices and objects it is connecting, but it is also flexible when it comes to how users can use data. Users can build relationships between data sources and take action in one area based on data from another.

As amount of sent data gets higher new skills are needed to harness it's power
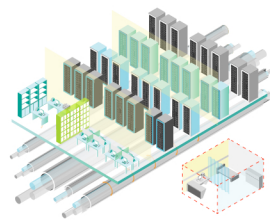
IoT Heap users can scale level of services needed as well as number or modules used. As such IoT Heap platform is optimized for M2M communications over different protocols and therefore there is no need for multiple systems.

Everything you need on a single heap

With out-of-the-box functionality and impressive built-in capabilities, the platform ensures reliability, safety and security. Advanced system infrastructure includes an alarm/event management subsystem, built-in system displays, configurable reports, extensive history collection and standard system trends.
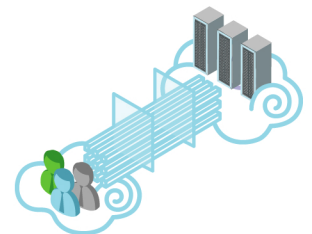
More data, more opportunities

Whether it is a part of system integration or a whole SCADA systems platform is designed to be able to meet varied project requirements from elevated tank automation, pump stations, or to entire water treatment plants.
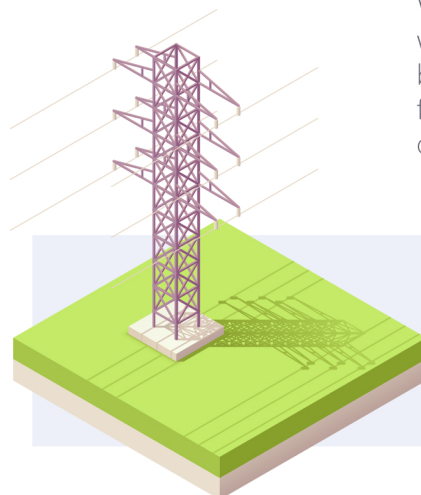
Either part of a power system needs to be monitored or a whole national power system daily production and consumption of electricity, IoT Heap is a scalable platform able to process, transform and present data. For more use cases visit http://www.sky-puzzle.com

SKYPUZZLE

DATA VISUALIZATION
Real-time, interactive dashboards

IoT Heap cloud computing
Everything you need on a single heap

Visualization means bringing the IoT to reality

The changing shape of the digital world as we know it made us to realize how important user experience really is.

In order to overcome this key barrier we have put significant efforts to provide simplicity to our users. Through a wide variety of services and widgets IoT Heap Data Visualization platform ensures that there is no need for a complex and challenging manual process.

Why UX matters

The widget design process starts with a solid strategic foundation. We explore every option in order to ultimately create an intuitive dashboard component.

IoT is all about providing insights

Users can design own dashboards based on their product line KPI's and metrics, adjust display options simply, configure access levels instantly and add new monitoring rules quickly.
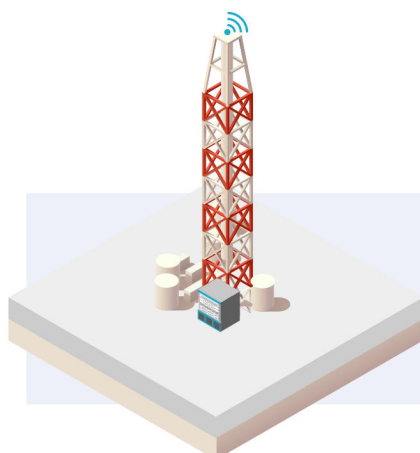
The ability to monitor the performance of wireless communications systems, even detecting cable faults from a remote location, is becoming increasingly valuable as hundreds of new base stations come on line.For more use cases visit http://www.sky-puzzle.com

iotheap

EVERYTHING YOU NEED ON A SINGLE HEAP