

# Industry 4.0 Scales

# **Application Practice**



Scales at the Internet of Things

# Digitisation

# It is not enough to know, you have to apply, it is not enough to want, you have to do.

Johann Wolfgang von Goethe

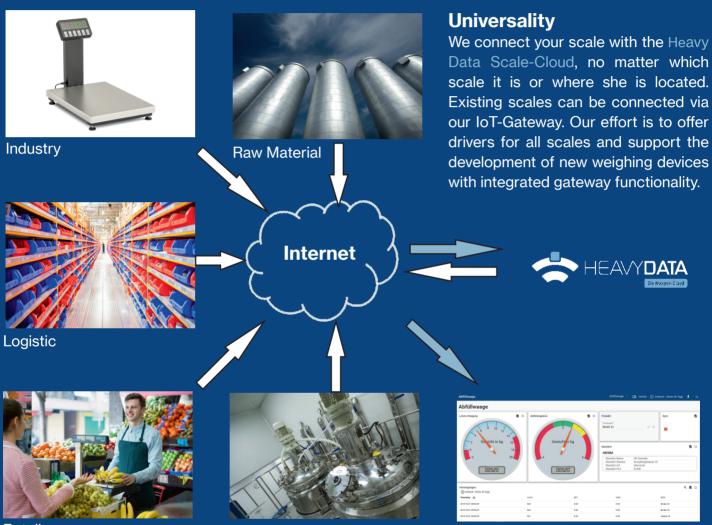
When you want to do something, simply use our know-how, to digitize your application.

Heavy Data GmbH





# Our Vision The Scale-Cloud



Retail

Process

Browser View (example)

## **Functionality**

We transport and store weight data via Internet on highest security level. You have access to this data by using a standard browser. The Data will be visualised with our application specific dashboards. Search- and sort functions makes it easy to use the data. For special tasks you can download the data in a csv file an use Excel for further analysis.

## Connectivity

To communicate with the scale our IoT-Gateway uses the common scale interfaces. The data will be transmitted by customer network or optional by mobile radio network and internet and stored in the Heavy Data Scale-Cloud. You can use the scale cloud as a stand-alone system or connect it with an optional available API-Interface to your ERP or e-commerce system.

# **Application Examples**

## **Silo Scale**

With our Heavy Data Scale-Cloud you can manage local silos easy from your headquarters. If the silo content falls below special limits, alarms will be generated and can be used for automatic reordering. With the real time knowledge of all silo content you can react perfect on special offers of raw materials. In the refilling process you can save money by route optimisation of truck transportation.



# **Shipping Scale**

The package weights, measured in your shipping department, can be used for more than only calculating transport costs. If you store order-no. and customer-no. together with the weight in the Heavy Data Scale-Cloud, you will be able to check easily reclamations for not complete deliveries or even prevent incorrect deliveries. You can easily allow your sales guys to see this data in order to communicate the status of urgent deliveries direct with your customers.



## **Retail Scale**

Simply use the data, which will be generated by the scale in the sales process, to optimise your inventory or logistic processes. The scale generates with every sale, information which products and which quantity of products will be removed from your local stock. This data will be collectet in the Heavy Data Scale-Cloud and can used by, you in order to optimise refilling processes. A very helpful function to manage weekly market stands.







## **Inventory Scale**

Beside our systems for warehouse automation, which displays every storage place content in real time, we connect also single scales to our cloud, in order to record inventory results directly. Time-consuming manual counting and entering results in IT-systems will be not necessary anymore. You simply weigh the content of the storage place and with the known part weight, the total number of pieces will be calculated in the cloud.



# **Filling Scale**

No matter, whether you fill small or big containers, with a connection of your filling scale to our Heavy Data Scale-Cloud, you will get optimal control over your manual filling processes. The filling results will be stored in the cloud and can be used as filling evidence. Additional collected data, like order numbers and batch numbers, enables you to realise a simple batch traceability. Also mobile filling stations can be supervised.



## **Onboard Truck Scale**

To collect and transport rubbish or reycling materials or handle intermediate products, companies often use vehicles with integrated weighing technic (onboard weighing). With a mobile radio connection to our Heavy Data Scale-Cloud, it becomes simple to supervise all these transport processes online. Together with additional collected data, like customer number or order number you can optimize routes and billing processes.



# **Our Offer**



### Use instead of building by yourself

Using the modern Cloud architecture from Heavy Data to connect your scales, in order to avoid a time consuming and expensive development of an own IT-infrastructure on-premise. You can start immediately. Our preconfigured packages include weighing terminals, IoTgateways and cloud services for weighing applications. This package makes your life easy and allows simple cost calculations.



#### At any time and everywhere

Weighing is an important part of many business processes. With cloud connection you can use your data, without additional effort, more effective. Many users and companies can use the data at any time around the world by internet access. The stored data can be visualised by application specific dashboards, downloaded as csv-file or optional connected directly with your ERP-system.



#### Packages instead of experiments

We do not leave you alone with a lot of questions regarding interfaces, protocols, bandwidth and data security. Preconfigured and tested packages make the usage easy for you. You can order complete packages from us or at your local scale dealer. If you want to connect a scale which is not included in our driver library, don not hesitate to contact us for a special programming support.





# Your benefit

## Our target group

With the Heavy Data Scale-Cloud it becomes easy for small and midsize companies to join the advantages of Industry 4.0 and IoT processes. Using the cloud based IT-infrastructure makes big local IT investments unnecessary. Also big companies can use our platform, in order to realise pilot projects fast and effective, without burden their own IT-resources.

### Making complicate things easy

You will find numberless IoT-platforms at the internet. Most of them are universal and free configurable. If everything is possible, it becomes more complicate to realise one specific application. We did this for you in the field of weighing applications. Secure protocols transport the data via Internet and a modern database system stores the data in a data center within the EU, considering EU data security directives like DSVGO.

# **Benefit by Heavy Data Scale-Cloud**





We at Heavy Data have made it our business, to make your life easier. Use modern online procedures to optimize your weighing and warehouse processes. We take care of the IT infrastructure in the cloud, ensure that the scales communicate with the cloud and that you have data access conveniently via Internet. On request, we can deliver the complete package, consisting of hardware, software, cloud platform and service. No matter what application you have, we will ensure that it will be visualized the data attractive or create a connection to your special application software. We offer an open platform for all scale manufacturers, software houses and application programmers. So it becomes easy and efficiency to integrate scales into digital business processes. By using the existing IT infrastructure in the cloud, the individual customer saves high initial costs and with low monthly usage fees, even single scales can be connected to the cloud. The digitization of business processes becomes faster and cheaper.

Looking forward to realise projects with you!

Roger Faust Managing Director Heavy Data GmbH



space for your notes

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