



## INDAVER LOCATES AND MANAGES WASTE CONTAINERS EASILY WITH ITS SMART, INTUITIVE MOBILE SOLUTION

Container hire is one of the many logistics services that waste management expert Indaver, a trusted SAP customer, offers its customers. Ctac has developed a mobile cloud solution, integrated seamlessly into the existing SAP backbone, to help the company manage its thousands of bulk waste containers in the field more efficiently.

Indaver is a European waste management company helping industrial companies and public authorities in Belgium, the Netherlands, Germany, Portugal and the United Kingdom, to manage and treat their waste. Indaver assists its customers to retain and further improve their sustainable performance, by supporting and improving their waste management continuously, with the minimum impact on society and the maximum recovery of energy and materials.

### Insight into location

"Previously when our drivers left or picked up a container at a customer's site, they wrote down the serial number on the transport document manually," explains Nathalie Vasseur, Project Manager at Indaver. "To avoid errors and the time needed to track the container locations manually, we needed

a solution which would register container movements by scanning. Our project was intended to track and trace the waste containers which our customers rent, when they're located at customer sites, treatment centres, transfer stations or anywhere in-between." A mobile solution integrating with Indaver's existing SAP system was felt to be the best match for these challenges – "a mobile solution allowing drivers to scan the QR code on the container, so that its whereabouts would be integrated immediately and automatically into our existing SAP backbone."

### Why Ctac?

Indaver weighed up solutions from six different suppliers, using a number of criteria. "Naturally seamless integration into our SAP backbone was key, but we also wanted the

solution to be 100 per cent compliant with the SAP roadmap for mobile: user-friendly, future-proof etcetera,” notes Vasseur. The solution Ctac proposed ticked all the boxes. “Plus, their solution architects were clearly the most experienced and they ensured the best TCO.”

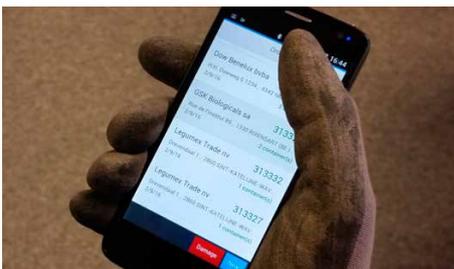
### Mobile, cloud-based

Ctac developed a mobile, cloud-based solution which helps Indaver to track containers in real-time via GPS. The solution is based on the SAP HANA Cloud Platform, and integrates with the existing SAP backbone. Ctac built the solution on SAP HANA for three reasons. First, the platform limits the processing load and thus any additional stress on the back-end system.

The gateway takes the load of service calls, and then triggers the APIs in the back-end. Second, the HANA Cloud Platform updates automatically. And third, the platform ensures better performance because the mobile app is hosted from the HANA Cloud Platform. From there it loads and works much faster than could ever have been achieved when hosting it from the back-end.

### How it works

In the mobile app drivers can see exactly which containers they need to pick-up or drop-off at which location. Once they do, simply scanning the QR code will feed all the relevant information into the system. Should the driver notice any damage to a container, he or she can create a damage report by simply scanning the QR code on the container, taking a couple of pictures, entering some text and submitting the report. This creates a damage notification in the back-end. The app synchronises with the SAP back-end in real-time. So the planners in the offices will always be working with up-to-date container stock data.



### More efficient planning

Indaver can easily optimise its container management with this solution. “That helps us to save money and time,” explains Vasseur. “We can easily pinpoint where each container is, in real-time – at a customer’s site, in stock, under repair etcetera – from anywhere, at any time.” This creates more efficient planning.

Indaver’s planners used to spend two hours a day simply assigning 80 orders to drivers in the old transaction screens. With the new, easy-to-use assignment cockpit, they can perform the same tasks in just ten minutes, by simply dragging-and-dropping orders onto drivers.

### Error-free container management

The mobile solution makes it easier for the container drivers to work faster and almost error-free. They used to have to record on paper where they picked up a container, from which customer, what its number was, what state the container was in and so on. Now it’s just a matter of scanning the QR code and the solution does the rest. And if the driver makes a mistake when scanning? No problem: the cleaning cockpit identifies, highlights and corrects these errors. The system has been set-up such that it looks at historical scans, past orders, unassigned orders and many more parameters. This way it can automatically clear and correct the majority of faults. Vasseur adds: “The result is that we expect correct billing of the renting fee to our customers, and more accurate stock management.”

The mobile, cloud-based SAP solution is the start of a more comprehensive track-and-trace solution. In the future Indaver’s more expensive containers will also be equipped with sensors to automatically track temperature, humidity, load and location. How? By using the IoT services on the HANA Cloud Platform. This will also improve the automatic corrections in the cleaning cockpit still further. It will also let Indaver track its containers in real-time. And it will alert customers pro-actively if the temperature in containers starts to rise, or if the containers are almost full and need replacement. So with this cloud-based, mobile solution, Indaver is ready to optimise its container management now and in the future.



### About Ctac

As an innovative Total Solution Provider, Ctac helps customers realize their ambitions. We do so by developing and implementing industry-focused solutions that fully address customer’s needs and business processes in various markets. With a passion for technology and a sharp eye for business processes, we work at the crossroads of business and ICT on a daily basis. Our industry-focused solutions for among others retail, wholesale, manufacturing, real estate and professional services are being developed in close cooperation with our customers. We complement our industry-specific composed solutions with a comprehensive range of services, varying from business consultancy to cloud services and software development, mobility and in-memory computing. For this, we always take a professional approach, with an innovative angle and a focus on transparent personal contact. Ctac is listed at Euronext Amsterdam (ticker: Ctac).

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