



# NEXT-GEN TELEMETRY WITH THE IoT

## POWERED BY A CROSS-CONTINENTAL PARTNERSHIP

### TSALANO BUSINESS SOLUTIONS

"Innovative ICT Solutions"

#### Customer Profile

Tsalano is an information and communications technology company in South Africa with global ambitions. Founded in 2000, its primary markets include government and semi-government organizations. With a small team of telemetry and sensor experts, the company has an outsized impact on everything from monitoring supply chains, to measuring natural resources like water from source to use, to providing business services with the latest in IoT and integration platforms powered by Software AG.

#### New Challenges

- Public sector constraints
- Poor infrastructure
- Resource scarcity
- Emerging local technology sector
- Exponential growth

#### Software AG Solutions

Digital Business Platform:

- Application Integration and Process Automation powered by webMethods
- Device Connectivity powered by Cumulocity IoT
- Visual Analytics powered by MashZone NextGen
- Streaming Analytics powered by Apama

#### Key Benefits

- Achieved exponential revenue growth
- Cut water and revenue losses
- Reduced processing times from 24 hours to < 3 minute
- Fulfilled local-international partnership
- Improved customer experience and engagement

### A continent awakens

Tsalano is a young company on a mission. As a South African expert in Information and Communications Technology (ICT), the company is experiencing exponential growth while bringing stability to the domestic market. It's doing this with custom-built solutions centered on integration, the Internet of Things (IoT), and real-time monitoring of streaming analytics from environmental sensors—touching everything from supply chains to natural resources. But early on, the company realized that to have the impact it wanted, it didn't make sense to reinvent the wheel.

"We knew that Tsalano and South Africa had the potential to be a model for the rest of the continent and even the globe," says Josiah Senona, Director, Tsalano. "But we needed a way to take our core expertise in telemetry, sensing and ICT, and turn it into actionable solutions for our clients."

"To do this we needed a partner fully on board with this vision and an IT platform to match."

Tsalano built its expertise into custom webMethods, MashZone NextGen and Cumulocity IoT solutions to enable services no one in South Africa had seen before.

The new collaboration first tackled the prepaid electricity market, revolutionizing the business with automated integration and the IoT to speed up agent financing by an astounding 1440 percent—growing revenue 10-fold in just three months. Then they took on monitoring parts of the country's fragile water use system as revenue and resources leaked from reservoirs to the tap, eliminating losses at every turn. What comes next may change the world.

*"By combining our telemetry expertise with the best technology platforms in the business thanks to Software AG, we've created a partnership that is literally changing the way South Africa understands its supply chains, monitors electricity and natural resources, and conducts business. In the process we're stamping out inefficiency in every market we enter—together."*

— Josiah Senona | Director, Tsalano



## Electrifying the market

You can't do global until you understand local. Who would have thought to combine the South African prepaid electricity and mobile telephony markets? A less connected team might have missed such an innovative idea.

Not Tsalano and Software AG.

By researching the way agents sold electricity directly to customers for the national utility Eskom, the team saw an obvious way to speed up and secure every step of the process using webMethods. "The old way required agents to buy prepaid electricity credits before selling them, which would take at least 24 hours to process," says Senona. "But our solution automated the entire chain, reducing turnaround to less than a minute."

Now, when an agent initiates a deposit, an SMS is sent to a small IoT device built by Tsalano. The hardware passes the notification to webMethods in order to automate the process of allocating credits and accessing the accounting systems of every party involved—in near real time.

The breakthrough has allowed the number of agents working with the system to grow from two to 140 in a matter of months, with new agent registrations humming along at 15 – 30 per month and growing.

But most clever of all was that by understanding local economic and cultural factors, the team observed and then captured the potent opportunity of enlisting agents to sell mobile airtime and data too—coupling the capability to an already robust network with almost no extra cost. That's the kind special ingredient that elevates the right partnerships to new heights.

## From water to the world

Such wins delivered on a strategy to rapidly grow revenue and leave no space for inefficiency—something both public and private clients loved. But Tsalano had more ambitious goals.

That's why, starting at the end of 2017, its IoT and sensor teams began a new project with Software AG to design a revolutionary, flexible and low-cost system to monitor water and other important resources.

Built on webMethods for integration, the system captures data from sensors in reservoirs, pipes, buildings and private households and can closely measure, as water accumulates naturally, how it is transported and consumed. "On top of this system, we experimented with a different IoT and streaming platform for historical reasons—but it quickly became clear that Software AG had the best solution using Cumulocity IoT and Apama," says Senona.

The system can pinpoint the locations of major water losses, which in South Africa reach 45 – 50 percent of supply. And with Cumulocity IoT and Apama, it will now allow automated control of pumping and gate systems for optimal conservation and revenue protection.

"We understood the importance of South Africa unlocking and activating the National Development Plan to grow the economy and create much needed jobs for our youthful society," says Senona. "Hence we are obsessed with building local solutions to respond to our own challenges – For Us By Us."

From local to global—that's how Tsalano and Software AG are helping conquer the world.

### ABOUT SOFTWARE AG

Software AG (Frankfurt TecDAX: SOW) helps companies with their digital transformation. With Software AG's Digital Business Platform, companies can better interact with their customers and bring them on new 'digital' journeys, promote unique value propositions, and create new business opportunities. In the Internet of Things (IoT) market, Software AG enables enterprises to integrate, connect and manage IoT components as well as analyze data and predict future events based on Artificial Intelligence (AI). The Digital Business Platform is built on decades of uncompromising software development, IT experience and technological leadership. Software AG has more than 4,500 employees, is active in 70 countries and had revenues of €879 million in 2017. To learn more, visit [www.softwareag.com](http://www.softwareag.com).

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