

STRONG TOGETHER

TECHNICAL PUBLIC UTILITY OPERATION WITH AN INTEGRATED SOFTWARE SOLUTION FOR ASSET MANAGEMENT, MAINTENANCE PLANNING AND EXECUTION: COOPERATION COMPANY NETZWERKSTADT GMBH & CO. KG USES GS-SERVICE AS A GAME CHANGER IN DIGITAL TRANSFORMATION

USER STORY



STRONG TOGETHER

Technical public utility operation with an integrated software solution for asset management, maintenance planning and execution: cooperation company NetzWerkStadt GmbH & Co. KG uses GS-Service as a game changer in digital transformation

Headquarter Friedrichshafen: NetzWerkStadt GmbH & Co. KG (NWS) is a joint venture between the municipalities of Stadtwerke am See, Stadtwerke Bad Saulgau, Stadtwerke Mengen and Regionalwerk Bodensee. NWS recommends GS-Service for plant management, maintenance planning and the execution of the technical public utility operations of its shareholders and other suppliers.

The digital transformation is and remains the No. 1 trend topic for municipal utilities from Flensburg to Friedrichshafen. The greatest challenge, especially at the beginning of the digitalization initiative 15 years ago was to implement the processes in operations management and maintenance. On the one hand, because processes describe variable states and are therefore complex, on the other hand because they are inseparably linked to the human factor.

NetzWerkStadt, the service provider and IT partner of several municipal utilities in the region is very familiar with the challenges at the interface between the employee as the bearer of the work process and the IT solution of several municipal utilities in the region. That is why the experts for asset management, energy economics and management consulting in the development, training and hosting of the operations management and maintenance software GS-Service (GreenGate AG) on the greatest possible participation from service to operational management to the executive management.

Strategy is not paper-based

Dario Spampinato (34), NWS Project Manager in the Asset and Workforces Management segment, first breaks down the bigger picture to the fundamental challenge on the site. "The strategic line of digitalization is comparable to the municipal utilities we serve: It's about the technicians no longer having to utilize paperwork." The reason is

quickly explained: "It is about the well-known media disruptions in the transfer of data from the clipboard to the IT system, data inconsistencies due to manual activities, inadequate instructions, insufficient guidance, instruction and documentation of the activities of external service providers, no insight into

the history of assets and processes and if for example employee B

is supposed to continue an open project of employee A, but only the paper file is available." Apart

from nostalgia, nothing remains: "Digitalization is of course the main topic at the municipal utilities.

Colleagues were so paper fixated, for the documentation alone it felt like ten heads were needed to complete it. With the right

IT application, just one application would have been sufficient," he says.

"Let's take the example of the ladder inspection, which was hybrid documented at the





municipal utilities until 2019. First there were the documents from the technician, who filled out some of the paperwork in writing and then passed it on to a typist who typed or scanned the data into the system for invoicing."

Mobile order processing

Since NWS established the mobile solutions of the maintenance and operations management software GS-Service at the municipal utilities this procedure has changed fundamentally: Several work steps became a

single one because the employees document all processing steps and results in the field on a tablet or smartphone. If desired, the data can be transferred immediately or in the case of offline work, later at the workstation or at configurable intervals. "Mobile task processing is now a very big topic and it saves a lot of time," says Dario Spampinato. The new efficiency starts with the map integration for easy orientation and the display of tasks in the surrounding and their status. Resources information, task processing with structured checklists, time recording and evaluation creation - everything is possible in GS-Service. But also feasible?

Facing the realities

"Yes, it can be done." We communicate it in such a way that everyone understands and can set up the solution in such a way that it corresponds to the realities. We have already done observations for example for transformer inspections, in order to optimize the digital back-up of the technicians

in GS-Service. The core question was: "How does the colleague really work?" In work process research, such an approach is known as a NAK analysis (user-task-context analysis)

and is intended to optimize the user orientation of a product in short usability. This is about the extent to which the product or IT solution supports the user in his or her tasks in the specific context situation. The more and the easier it does this the greater the acceptance among users. Dario Spampinato knows this because he knew the opposite: In the past, it was usually the case that software use was ordered top down, i.e. from above, but the employees didn't see the point. Nowadays when we put a tablet in the hands of our colleagues and show them how easy it is to access specific information, manage equipment and document tasks, the reaction is: "Oh, I might need it after all."

NetzWerkStadt - Business on Lake Constance

NetzWerkStadt GmbH & Co. KG from Friedrichshafen is a joint venture of Stadtwerk am See GmbH & Co. KG, Stadtwerke Bad Saulgau, Stadtwerke Mengen and Regionalwerk Bodensee GmbH & Co. KG. Founded in 2010 as an interface and switch tower, the service provider for its shareholders and other municipal utility companies is concerned with three areas: Asset management (asset and workforce management systems, optimization of operating processes, geoinformation systems), energy management (regulation management, energy management, contract management) and management consulting (concession procedures, strategic network management, process and project management). The NWS offer with GS-Service, the operations management and maintenance software from GreenGate AG (Windeck), includes in addition to the provision of the software in the usage service, setup and configuration of interfaces and first-level support services such as master data entry, maintenance management and setting up order structures.



1 SINGLE SOURCE OF TRUTH

not only secures corporate knowledge on the IT side, but also reduces the risk of conflicts: "No one is afraid that someone else knows more," says Dario Spampinato (34), Project Manager in the Asset and Workforce Management of NetzWerkStadt GmbH & Co. KG



1000 PAGES STRONG

is the company manual, with which plant and team leaders primarily utilize. It is stored entirely in the GS-Service and can therefore be accessed at any time or from any location.



2010 NETZWERKSTADT

was founded as an interface and switch tower. The service provider for its shareholders and other municipal energy supply companies deals with three major topics: asset management, energy management and management consulting.

Turning point in 2014

In 2014, GS-Service was introduced with a focus on the facilities and processes in the segments of water, electricity, heat and gas segments. Since 2019, the maintenance and inspections of the multi-storey car parks have been handled with GS-Service, in addition to planning, execution and management of the maintenance and operation of indoor swimming halls, Block-type thermal power plants and the municipalities' playgrounds. Interfaces exist among others to SAP, ERP and GIS. Since 2019, NWS has also been offering its customers an all-inclusive service with the hosting of IT for operational management and maintenance. Fundamentally GS-Service, as a subordinate system to the ERP, integrates planning, documentation and monitoring functions and business applications into an information and management system. The object-oriented software - designed as a scalable client/server solution - is based on a standard technology and works under current

Microsoft operating systems. The advantage: GS-Service's open system architecture allows it to be linked to other systems (GIS, ERP).

Practical daily work

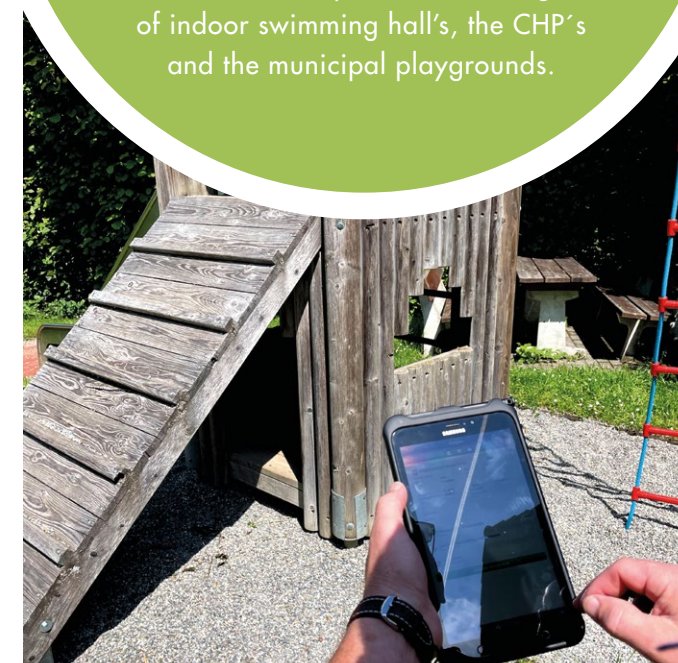
Every working day, team leaders, foremen and technicians from the public utility company gather in the morning in the workroom or office for a team meeting. They then take their tablets or notebooks with their orders as a matter of course and they start the GS-Service-supported maintenance. Dario Spampinato explains the functional principle in the background: "GS-Service keeps the master data of plants, measuring instruments, vehicles and equipment. We assign their maintenance requirements to these objects and automate the cycles. The tasks created in this way can be scheduled by the integrated module and transferred to mobile devices. In addition, the resources and materials can also be assigned for work preparation. The feedback in turn is stored in the system via data reconciliation, defects can be documented and processed further."

Another helpful function he has identified is the management, documentation and follow-up of the occupational safety instructions "This is the way to fulfil all legal requirements, such as the handling of hazardous substances, you don't lose the overview and you can carry out the work as efficiently as possible."

Everything flows

This calculation definitely works: "Let's look at the water segment," Spampinato continues, "they are elated with this solution. Due to the merger of two municipal utilities on Lake Constance, one of the challenges was to get an overview of which water facilities are in operation at the management of the respective municipal utility. With the digital inventory in GS-Service, all water facilities were

Not only are the classic municipal utility assets for water, electricity and heat documented, controlled and maintained with the operations management and maintenance software GS-Service. Since 2019, the maintenance and inspections of the multi-storey car parks have also been managed with GS-Service, in addition to the planning, execution and management of the maintenance and operational management of indoor swimming hall's, the CHP's and the municipal playgrounds.



Abbrechen Tätigkeit Speichern

Kinderspiel- und Grillplatz Bondorf

Status: Erstellt

Kinderspiel- und Grillplatz Bondorf
Spielplatz

Inspektion durchgeführt Ja

Inspektion durchgeführt von

Mängel vorhanden Nein

Nicht durchgeführt Durchgeführt

recorded on the system side.

"The same applies to the approximately 1,000-page company manual that is mapped 1:1 in GS-Service with

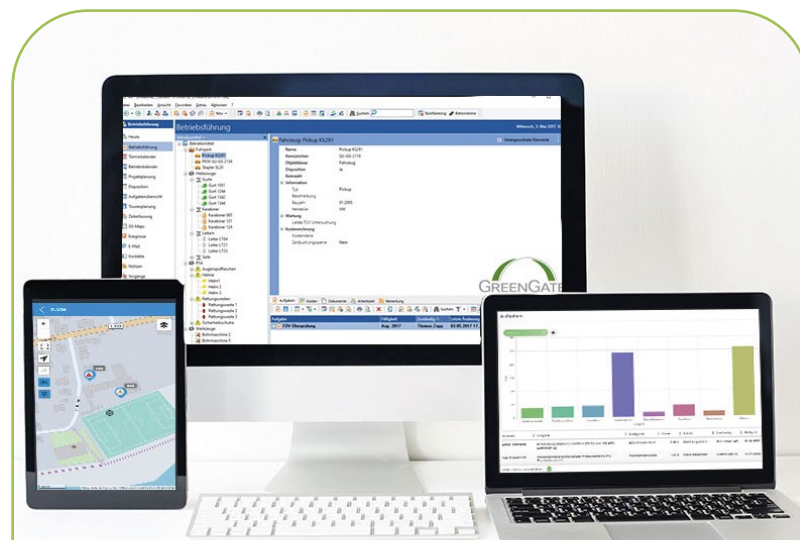
which the plant managers and team leaders work.

"Colleagues can access and insert all the information in one central place." The Single Source of Truth not only

secures corporate knowledge on the IT side but also reduces the risk of conflicts:

"No one is afraid that someone else knows more."

Spampinato has registered a marked increase in the acceptance



of GS-Service, "GreenGate is a catchphrase at the municipal utilities." At NetzWerkStadt, people now speak to us directly about this and ask:

"What else can the system do? This is a great indicator that we are doing very well with the system and are enthusiastic about the cooperation with GreenGate. "Why is that? Nothing is glossed over here, it is talked about - even at a regular Jour-fixe. We are very satisfied - a quick response is guaranteed at GreenGate." A new project is the implementation of automated email notifications from the GS service, so that the team leaders/employees are informed about completed orders from external service providers and

can check them accordingly based on the completed order form.

"That is also our objective: to digitalize as much as possible in order to automate as much as possible."

Deloitte Study on Municipal utility IT

Following the COVID 19 pandemic, it has become clear that IT is not an alternative but simply 'the' solution. The consulting firm Deloitte writes in the article 'Use of IT services by municipal utilities - approaches for greater resilience in (post-)crisis times' "The crisis situation caused by COVID-19 shows that, for example, the availability of IT services and the corresponding resilience of the organization become a critical success factor for ongoing operations. For this reason, building resilience into all IT services used in-house or provided to third parties is an essential part of the digitalization strategy for municipal utilities." With this, the global consulting giant gets to the heart of why NetzWerkStadt (NWS) is a sought-after municipal utility partner for the simple and secure provision and use of complex networked IT services. Above all, however, NWS advises municipal utilities and suppliers on the strategic question of which IT-related capabilities need to be further developed in the organization. All of this against the backdrop of a highly regulated industry which is bound by laws, regulations and directives.

ASSET AND WORKFORCE MANAGEMENT TECHNICAL GRID OPERATION WITH SYSTEM



Dario Spampinato (34)

is project manager in the asset and workforce management segment at NetzWerkStadt GmbH & Co. "We communicate GS-Service so that everyone understands it and adapt the solution so that it corresponds to the realities. To do this, we have already travelled out to transformer inspections, for example, in order to optimize the digital back-up of the technicians in GS-Service. The key question was: **How does the colleague really work?**"

THE SOFTWARE-SUITE GS-SERVICE

GS-Service is an information and management system. It combines planning, documentation and monitoring functions with business applications and is subordinate to the ERP. The object-oriented software is designed as a scalable

client/server solution and is based on standard technology. GS-Service works under current Microsoft operating systems. Thanks to its open system architecture, GS-Service can be linked to other systems (ERP, DMS, GIS, PLM, CRM, PLS, SPS).



Functionality of GS-Serve



OBJECT MANAGEMENT

Direct access to operational objects, tasks or persons



RESOURCE PLANNING

effective use of human and operational resources



DOCUMENT MANAGEMENT

simple and legally secure management



INTEGRATED MATERIALS MANAGEMENT

cost reduction in warehousing



REPORTING AND ANALYSIS FUNCTIONS

transparent for strategic decisions



MOBILE DEVICES AND INTERFACES

up to date at any time and everywhere

REFERENCES

INDUSTRY	WATER MANAGEMENT	UTILITIES MANAGEMENT – WIND ENERGY
 ARMACELL GMBH	 BUNDESSTADT BONN	 CENTRALSCHWEIZERISCHE KRAFTWERKE AG
 BILSTEIN SERVICE GMBH	 DAHME-NUTHE WASSER-, ABWASSERBETRIEBSGESELLSCHAFT GMBH	 DEUTSCHE WINDTECHNIK OFFSHORE UND CONSULTING GMBH
 CAPAROL	 E-REGIO GMBH & CO. KG	 ENERGIENETZE MITTEL RheIN GMBH & CO. KG
 FORD TRANSMISSIONS GMBH	 LANDESTALSPERRENVERWALTUNG DES FREISTAATES SACHSEN	 OMEXOM RENEWABLE ENERGIES OFFSHORE GMBH
 HENKELL & CO. SEKTKELLEREI KG	 STADTWERKE WESSELING GMBH	 RHENAG RHEINISCHE ENERGIE AG
 LEYKAM LET'S PRINT AG	 WASSERVERBAND LAUSITZ	 STADTWERKE ROSTOCK AG
 OXEA DEUTSCHLAND GMBH	 WASSERVERBAND MITTLERES BURGENLAND	 STADT ST. GALLEN
 RIHA WESERGOLD GETRÄNKE GMBH & CO. KG	 WUPPERVERBAND	 WIND MW SERVICE GMBH

APPLICATION - PROFILE

User / Operator

NetzWerkStadt GmbH & Co. KG (Friedrichshafen)

Sectors

Service, asset management, energy management, management consulting in relation to water, electricity, heat, gas and municipal infrastructures (multi-storey car parks, playgrounds, swimming halls etc.)

Supported processes

- Asset management, maintenance planning and execution of technical public utility operations
- On-site maintenance/materials management with mobile devices
- Consistent, person-independent management and documentation of objects, assets and equipment
- Management, documentation and follow-up of occupational safety instructions
- Efficient information, coordination and guidance of all service teams

Software utilized

GS-Service – GS-Manager

Challenge

- Creation of an interactive knowledge platform for technical management in the municipal and utility surrounding
- Digital management of plant infrastructure, equipment and maintenance processes

- Legally compliant documentation personnel/ occupational safety
- Well-founded support through instruction and information on maintenance activities on site

Procedure

Digital inventory of plant infrastructure, equipment and personnel in GS-Service; Inventory and analysis of operational processes; Hosting of data and software operation by NWS

GreenGate services

Holistic support in process analysis, development of roadmap, provision and implementation of GS-Service operational management system; Support with data verification and input; Proposal system and interactive exchange in customizing sequences; Development of key user concept; Continuous training and support

Result

NetzWerkStadt GmbH & Co. KG transfers the entire operational process of technical management (plant management, maintenance planning, execution) at municipal utilities and suppliers into a digital future based on GS-Service; The integrated software solution GS-Service offers essential support for: Planning, work preparation, resource management, execution and follow-up of maintenance activities, Documentation



GreenGate AG, based in Germany (Windeck) and Switzerland (Seengen), has been developing highly adaptable and innovative software solutions for plant and infrastructure maintenance. The customers from the manufacturing industry as well as the energy, water and wind sectors use the GS-Service software in the area of technical plant and spare parts management, maintenance planning, and operations management tasks.

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