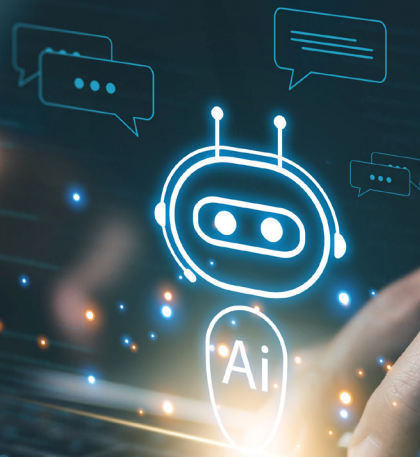


AI for public administration

The city of Nettetal is leading the way:
AI chatbots relieve employees of content
development and research efforts



Reference project:



“Artificial intelligence is a powerful tool that can significantly simplify and accelerate many everyday processes within public administration. With the AI Foundation Services from T-Systems, we have found the perfect platform to realize our three-zone concept. It combines sovereignty with a wide range of AI models.”

Thorsten Rode, Head of the Municipal IT Service City of Nettetal

Nettetal is located in the west of North Rhine-Westphalia directly on the Dutch border. This town in the district of Viersen has 43,500 inhabitants and, with its lakes and forests, is a well-known local recreation area for the Rhine-Ruhr region. It was not created until 1970, when various smaller communities merged to form the city. They named themselves after the Nette, which flows through the city area.

Shortage of skilled workers in public administration is an issue in Nettetal. It is already foreseeable that a large proportion of employees will retire from working life by 2030. At the same time, not enough young people are moving up. Against this background, studies predict that hundreds of thousands of positions in the administration can no longer be filled. With the clock ticking, what can be done?

“We are consistently using the opportunities offered by digitalization in order to combat the foreseeable shortage of skilled workers and continue to function as a city administration,” explains Thorsten Rode, head of the city administration’s IT service. In recent years, the administration in Nettetal has established a digital, employee-centered culture: the 580 employees understand the potential, undergo continuous training and, of course, use modern digital tools such as artificial intelligence (AI) for their work.



At a glance

- **TASK:** All employees should have access to an AI chatbot that helps them with their work, with its use always tailored to the required level of protection for confidential, personal, and social data.
- **SOLUTION:** Establish a hybrid 3-zone model for AI use to decide as per protection needs a highly secure green zone with in-house operation for sensitive data, supplemented by T-Systems’ AI Foundation Services for the yellow and red zones. With open-source models from the sovereign T Cloud Public for the yellow zone and other powerful models from the public cloud (OpenAI GPT, Google Gemini, Anthropic Claude) for the red zone. All this to enable flexible use, cover all use cases of the administration, and obtain language models through a contract.
- **RESULT:** The award-winning, multi-layered AI solution combines innovation and security. It increases employee productivity and makes the municipality fit for the future. Processing through a contract reduces costs and token-based billing ensures transparency.

Reference in detail

Customer pain points

“Artificial intelligence is a powerful tool that can significantly simplify and accelerate many everyday processes within public administration,” explains Thorsten Rode, Head of the Municipal IT Service, City of Nettetal. The pre-formulation of business emails, the creation of dossiers or the writing of notes are tasks that arise constantly and from which AI can substantially relieve employees. But AI can also speed up rarer tasks, such as creating concepts or researching in the comprehensive database of the authorities. “Our plan was to make every workplace AI-assisted. All employees should have access to an AI chatbot.” However, it was clear: “We also process confidential, personal and even social data. The use of AI must be based on the level of protection of the data,” adds Rode.

How T-Systems solved it

“We decided to introduce a hybrid system for AI use,” explains Thorsten Rode, Head of the Municipal IT Service, City of Nettetal. In the so-called green zone, employees have maximum control and safety. Here, all data (including confidential and social data) can be used in AI in a legally compliant manner. The green zone is supplemented by a yellow zone that allows the processing of personal data and a red zone that brings maximum flexibility and functionality in the use of high-end models, but excludes the processing of confidential data.

“By combining these three zones, we achieve the greatest possible benefit with the least possible use of resources. Digital sovereignty is maintained through the strategic use of our own infrastructure, while at the same time we can offer flexible scalability depending on requirements and protection needs. Cost efficiency in particular benefits from demand-based billing in the external zones,” says Rode, highlighting the added value of the 3-zone concept.

The team started building the green zone in 2024. To this end, the city operates its own GPU servers in its own rooms. Various open-source large language models (LLM) run here, including a 32 B Qwen. “In this setup, employees can have corresponding tasks completed with the help of a chatbot. All prompts, data and results remain in-house.” The in-house models are very suitable for most tasks. But for more complex topics, employees expect more efficient models. To meet these needs, the IT team established the yellow and red zones.

With T-Systems' AI Foundation Services, Rode found the perfect complement to his in-house approach: “For us, it was convincing that we have access to a wide range of different models in one place – and that we can also obtain them from a sovereign cloud. This combination – breadth of models and a scalable, sovereign

cloud – is unique in the market.”

In the yellow zone, Nettetal uses open source models, e.g. Mistral or Qwen. These are operated on the sovereign T Cloud Public. Through the LLM Serving Services, Nettetal also gains access to the latest GPT, Claude and Gemini models, which are provided by Azure or Google, among others (red zone). T-Systems provides the models through the standardized OpenAI API and bills for use via a token-based approach. The token-based model is a usage-based pricing model. It calculates the costs based on the amount of tokens consumed, i.e. words or parts of words that are sent to the model in prompts and returned by the model in its responses.

Retrieval Augmented Generation (RAG) can be used to securely combine internal sources with external models. The vector database then provides contextual information to the model used. This results in an AI-based self-service solution for IT support, research functions for service agreements and instructions for urban planning.

Humans play a crucial role in Nettetal's AI concept. Employees decide on a case-by-case basis which zone to use for their request. “For us, this means that we have to empower them accordingly. To this end, we have established a multi-stage training concept. General guidelines are laid down in an AI compass. If you want to use AI, you also need basic training, which you can complete through our internal instruction portal the “AI Seahorse”. For employees who want to delve deeper, there are further training courses and certificates, but also regular exchange rounds such as the AI Café,” says Thorsten Rode.



Why T-Systems?

Trusted partner with a sovereign, high-performance, European cloud. The wide range of language models offered by the LLM Serving Service of T-Systems' AI Foundation Services comprehensively supports AI initiatives in public administration. Independent benchmarks position T-Systems as a leader in the fields of AI and cloud.

Business impact

In November 2025, the city of Nettetal received the Digital Award in Bronze for the GDPR-compliant portal at the KOMMUNALE administrative trade fair in Nuremberg – a recognition of the groundbreaking AI project. “Our approach proves that we don't have to choose between safety and innovation. With the right concept, we can achieve both and at the same time increase productivity and accelerate administrative processes,” Rode sums up. With T-Systems, the city has a trusted partner who gives it easy access to all models from a single source in an as-a-service mode via the AI Foundation Services. Per-token billing offers the city full cost control, while the sovereign cloud helps to meet legal requirements.

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Published by

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