NIDA

The emergency information and documentation tool

medDV

NIDA

Time-saving.
Clear.
Adaptable.

www.medDV.com

pre-notification info physician Rapid doc SOP Telenotarzt

1 rescue data
2 anamnesis
3 first result
4 diagnosis
5 course
6 actions
7 medications
8 handover
9 result
finalisation

patient

name	date of birth	age	sex
Müller John	07.07.1977	45	
address	OFW		pregnant
phone number of the reference person	size	weight	BMI

times

| alarm | depart.time | arr.@scene | arr.@patient | depart.scene | KH an (8) |
| 08:00 | | | | | |

| Alarm LST | S3 LST | S4 LST | | S7 LST | S8 LST |
| 08:00 | 08:01 | 08:09 | | 08:52 | 09:12 |

place of scene

from facility
SQLITE

from adress
Hammilton Street 99
35398 Gießen Deutschland

Take over the data of the mission

RFID

CONTENT

What is NIDA?

Find out what NIDA means and in particular how this versatile family of solutions was created. More on **p. 4**
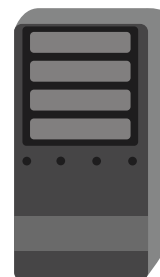
VERSATILITY

Find out where you can use NIDA on **pages 5-21**

COMMUNICATION

How does NIDA work? To gain a greater technical understanding of this family of solutions, go to **p. 22**

ABOUT US

You can find all the information about medDV GmbH from **p. 28**

NIDA

The emergency information and documentation tool

NIDA is a comprehensive solution for optimising processes and documentation, data collection and communication in the emergency services. The application supports the employees in the control centre, those on emergency missions and at the hospital with their individual challenges and provides tailored solutions for their different require-ments and tasks.

At the same time, the collaboration between these three areas is significantly improved and accelerated.

In critical emergency situations, patients benefit from receiving the best possible care. Organisations and stakeholders can optimise processes and reduce costs. That's because NIDA supports them with an electronic emergency log and in coordinating deployment. The solution simplifies invoicing and billing and offers extensive evaluation opportunities.
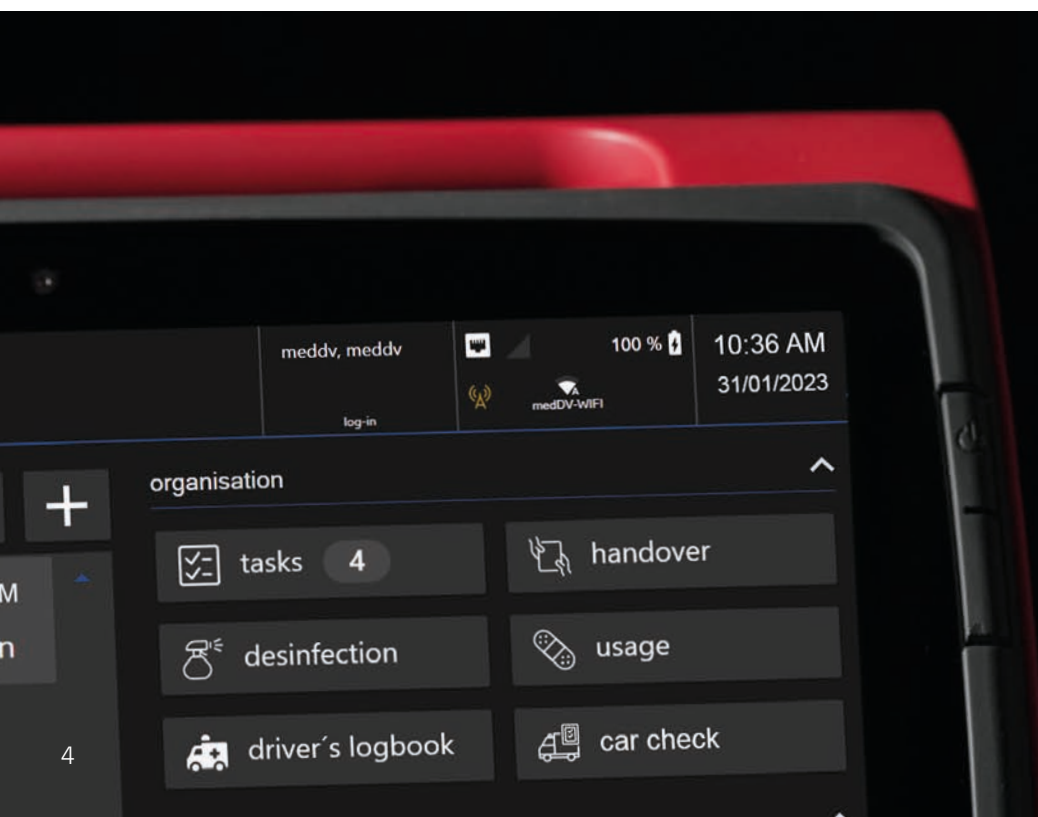
The NIDA*pad*

The hardware for mobile data collection for the emergency services

The NIDApad helps with the communication of case details between the control centre and ambulance, navigation to the site, comprehensive case documentation and the passing on of case data to the hospital. In order to achieve this, it features robust and splashproof housing with smooth surfaces to make it easier to disinfect. The device is intuitive to use and is entirely touchscreen.

You can really see the many years of practical experience the developers have when you use the NIDApad. The new device features a convenient 11.6-inch touchscreen display, ensuring maximum ergonomics and user-friendliness. This is the same size as the touchscreen keyboard on a notebook.

This makes text entry significantly easier. Users are therefore working with a familiar keyboard and can achieve very high accuracy straight away for text entry, even in stressful situations. This saves valuable time when on a call. Another key aspect is that the size of this device allows you to hold and use it securely on your legs without it slipping or wobbling.

The technical details at a glance

11" Widescreen Full HD Multitouch Display (1.920 x 1.080 pixels)

2 LTE modems, each with one SIM card slot

2 LTE modems, each with one SIM card slot

Splashproof and dustproof according to IP 54

Drop-resistant

DIN EN 1789

Front camera: Autofocus 3 MP
Rear camera: Autofocus 5 MP, barcode and QR code detection

RFID/NFC reader

Integrated loudspeaker and microphone

USB ports: 1x USB 2.0 and 1x USB 3.0

Docking station:
Space for 2 more batteries

GPS

2 smartcard readers

Ethernet

Hard disk: 128 GB SSD
Memory: 8 GB RAM
Processor: Apollo Lake Quad Core

Light sensor
Readable in sunlight

Wi-Fi

Acceleration sensor

Bluetooth

Weight: 1.8 kg

NIDApad

Mobile electricity supply?
Ensured at all times.

There are days when you just go out on one call after another. You can never predict how long your shift will be. For crews, it is vital that their NIDApads run smoothly at all times. Empty batteries and long, cumbersome charging processes should not slow down crews in their everyday rescue work.

That's why the NIDApad by medDV provides an extremely reliable and simple solution for this.
The NIDApad has two batteries which can be used in parallel and display the battery life. If needed, you can change the battery whilst you're working quickly and easily, without causing any disruption. For charging, the docking station holds two more batteries, meaning that you have a total of four batteries available to you for zero-disruption use. This makes the NIDApad particularly reliable when it comes to productivity, battery life and operational readiness.

NIDA for the control centre

Communicate a high volume of information quickly and without any errors

The control centre is a key point of contact for emergency crews. It plays a vital role in communicating and coordinating deployment.

By using NIDA, the ambulance receives all the information on its case from the control centre at a glance. This means the control centre can share information on new cases and updates. In addition, it is possible to communicate significantly more information than in a conventional alert process, such as the name and telephone number of the caller or a note about exactly where the emergency crew should go when they get to the site. These details can be very valuable in individual cases.

Seamless coordination between the dispatcher and rescue crews

A network connection allows the emergency crews and control centre to exchange information about the case. For example, if the dispatcher changes the building number whilst the crew is travelling, the driver will be informed about this change immediately. And vice versa, the crews can record and pass on important information, like patient data, PZC etc. for the control centre. The dispatcher in the control centre receives this information sent straight to their workstation.

NIDA for the control centre

Synchronisation of control centre and case data

The emergency crews also benefit. In particular, the billing data is also important to them. By collating the data from the control centre and crew vehicle in NIDA, a comprehensive picture of the case is created. For billing and medical documentation, complete, traceable and cross-departmental information is collected and archived. On this basis, detailed case evaluations and controlling can be carried out later.

Control centre   **NIDApad**

Alerting.

Case documentation.

Reassignment.

NIDA for the emergency services

Focus on what is most important when you're on a call

In an emergency, every second is valuable. With NIDA, emergency crews receive case details sent directly to the NIDApad by their control centre: clear, complete and comprehensible. This allows you to get to the site quickly and safely and you can prepare in advance for the situation you will be encountering there.

The NIDA also helps the emergency vehicle, for example with navigation. The target address can be copied straight over from the control centre alert and external navigation can be launched with a navigation device, for example by Garmin.

Create case logs in a convenient and fast way

NIDA takes away the need for emergency workers to fill out complex and time-consuming emergency logs. The NIDApad easily, intuitively and quickly records patient data, diagnoses and measures. You can make all the entries using the touchscreen and the structure of the emergency log in NIDA is clear and easy to navigate. Users are helped with entries with value lists and simplifications, e.g. with time entry. In addition, individually-adapted logs are available for different types of case, e.g. for transporting sick patients, emergency calls or mobile intensive care unit transportation.

If there is a multiple-casualty incident, full documentation is not possible in the outset. In order to simplify this initial phase, there is a quick record option in NIDA. The data is recorded in the same way for the patient label card and can also be sent from pad to pad via a server. The data which is recorded is also available in the work management straight away. Every NIDA user can access and add to documentation relating to a patient.

Possible to integrate various data sources easily

As well as data which is collected manually, further data sources can be integrated into the NIDA documentation, e.g. the insurance card, electronic health card, Austrian e-card, Swiss insurance card and medical technology.

Specifically, ECG and ventilation devices, e.g. Medumat Transport, collect much of the data which needs to be documented and send this on to NIDA. This includes patient-specific settings (e.g. breathing rate) and measurement values, e.g. key observations, alarms and resting ECGs.

Currently, the following medical technology products,

for example, can be connected via NIDA:

- corpuls 8/16 by GS Elektromedizinische Geräte G. Stemple

- corpuls 3 by GS Elektromedizinische Geräte G. Stemple

- LIFEPAK 12/15 by Stryker

- DEFIGARD Touch 7 by Schiller

- X-Serie by Zoll

- MEDUMAT Transport by WEINMANN

- MEDUMAT Standard² by WEINMANN

- MEDUCORE Standard² by WEINMANN

- Oxylog VE 300 by Dräger

- LUCAS 3 by Stryker

- Hamilton T1

- CareSens™ N NFC by AFS Biotechnik

- myMIDES C10 by MIDES

Your device
is not listed?
Contact us.

Convenient patient handover to the hospital

Data transmission to the hospital can take place in various ways. The most efficient method is digital handover as a PDF file to the KIS system at the hospital. However, it is also possible to provide a printed log. This printout can be created using a printer carried in the vehicle or via a printer at the hospital.

However, NIDA also supports patient pre-registration. The data can be transmitted electronically to the hospital's registration system. For example, this can ensure fast and expert care is provided to stroke and heart attack patients. With the medDV application packages for the hospital, the relevant data is recorded by the emergency services and forwarded to the hospital via mobile radio. The hospital staff receives a warning on the notification system and can access the emergency services information from any PC on the hospital network. At the same time, the patient is registered via the KIS. Patient care at the hospital can start without delay when the ambulance arrives.

An overview of the benefits

- Clearer and error-free acceptance of calls from the control centre

- Easy, time-saving and seamless, clear and comprehensible case documentation

- Simplified patient handover to the hospital and reporting for the control centre

- Standardisation and thus speeding up of systems and processes for the emergency services team

- Can be used in an MCI (mass casualty incident)

- Integration of the medical device data from devices like the corpuls 08/16 by GS Elektromedizinische Geräte, corpuls 3 by GS Elektromedizinische Geräte, Lifepak 12/15 by Medtronic Physio Control, Medumat Transport by Weinmann, Medumat Standard2 by Weinmann, Oxylog VE 300 by Dräger, alphacheck professional by iSense and cobas h 232 by Roche, DEFIGARD Touch 7 by Schiller, X-Serie by Zoll and LUCAS 3 by Medtronic Physio Control

- Provides treatment recommendations and instructions for certain conditions which can be administered individually

- Adaptable completeness checks, e.g. $etCO_2$ for intubation or mandatory ECG evaluation for heart attack diagnoses

- Information system to communicate current information, like case updates or road closures

- Standard information can be accessed with the file viewer, e.g. dosage tables, checklists, red and yellow list, hygiene schedules, instructions and algorithms

- Practical additional functions for processing and documenting routine tasks outside cases, e.g. a task list for current additional tasks, e.g. cleaning, disinfection or vehicle check

- Optimal time recording with data transmission to third-party applications

- Recording of the materials used within the framework of documentation. This data is used to create a proposal list, which can be further processed after the case. Shortages are displayed to accelerate the replenishment of materials.

- Entry of cases into a journey log in which movement and workshop trips can also be recorded.

NIDA in the clinic

Leveraging time and information

NIDAklinik is a digital platform for networking the clinic with the emergency doctor and ambulance service. Several studies show that by using NIDAklinik to take over and care for incoming emergency patients, more than half the time from arrival at the hospital to diagnosis and therapy can be saved. The transmission of medical information such as vital signs, ECG, photos and scores has been shown to increase the chance of survival in ST-segment elevation myocardial infarction, among other cases. In addition, the hospital can achieve better plannability through secured medical advance information of patients with acute life-threatening diseases. Patient care is optimised and the flow of patients in the hospital can be controlled even before the arrival of the ambulance, e.g. by pre-planning the CT or the shock room.

Transfer emergency protocols securely and completely

NIDAklinik can transmit the protocol of the ambulance service, which was previously only handed over as a printout or even handwritten, to the receiving hospital as a PDF and digital raw data. For this purpose, a „mailbox" is set up on a server in the hospital. The ambulance service stores its protocol in this digital mailbox during the handover. The data transfer can be anonymised or with complete patient data. In this way, emergency protocols can be processed and archived easily and conveniently within the hospital. They are available for filing in the patient file as well as for central filing and can be printed out at any time if required. Regardless of the software and hardware, NIDAklinik receives and processes all data securely via internationally recognised interface formats.

Optimise processes and procedures

NIDAclinic offers two central functions: telemedical pre-registration and digital protocol transfer. The telemedical pre-registration carried out by the rescue service contains important data and parameters of the emergency patient, which are announced on the NIDAarrivalboard and viewed in detail in the NIDAtracker in order to optimally prepare the clinic staff for the arriving patient. The emergency service records all relevant data on a mobile emergency service documentation system and transmits it to the clinic in advance. In this way, the emergency team in the receiving hospital receives diagnosis-specific scores, clinical findings, patient information and resting ECGs as well as images and videos. Via an ESPA-X interface, the receipt of a telemedical advance notification triggers a telephone alert to the hospital staff. The alarm can be configured individually, can be set depending on the content of the pre-announcement (e.g. pre-announcement diagnosis) and can be integrated into the clinic's own communication means (telephone or beeper). The hospital staff is alerted via the call system and can call up the rescue service information from any conputer in the hospital network. At the same time, the patient is transferred to the hospital information system or emergency admission software. NIDAklinik can transfer information directly to a hospital information system via an HL7 interface. The purpose of the connection to the hospital information system is to archive the care data of the emergency doctor and rescue service without media discontinuity. Patient care can begin without delay when the ambulance arrives. Emergencies can thus be coordinated at an early stage. The patient is quickly provided with the right personnel and the necessary equipment.

ISOBAR

NIDA supports the structured handover of patients in the shock room according to ISOBAR. **ISOBAR** stands for **I**dentify **S**ituation, **O**bservations, **B**ackground, **A**greed plan, **R**ead back.

The ISOBAR concept serves to ensure that patient handover is structured and ensures a rapid and error-free transmission of information and handover. In addition, it ensures that the handover is standardised, in particular when teams are changing and new staff are working.

Symbol	Criterion	Content (Telephone registration)	Content (Shock room handover)
I	Identification	Patient: Age, gender	Patient details
S	Situation	Emergency event, emergency diagnosis	Situation, initial findings
O	Observations	Vital functions stable/unstable	ABCDE, diagnoses, measures
B	Background	Additional information	Previous conditions, SAMPLER
A	Agreed plan	Time of arrival at hospital	Actions, measures to be taken
R	Read back	Read back	Read-back by hospital team leader

NIDA for billing

NIDA simplifies billing

Most billing systems work with "master data". This includes, for example, the funder, vehicle name, staff, rate and location lists. With NIDA, this master data can be made available and managed on a mobile basis. Subsequent case billing is significantly simplified in this way.

Unlike paper, digital pens or other collection systems, NIDA is able to review the completeness and plausibility whilst you are still working at the site during entry and flag errors. In combination with the master data from the invoicing system, this makes entry easier and reduces post-processing. Data handover to the invoicing system can then take place in different ways depending on which software solution is being used by an organisation for this.

NIDA for the tele-emergency doctor

Tele-emergency doctor

The tele-emergency doctor is an independent product by medDV. The tele-emergency doctor makes it possible for an emergency doctor to be consulted by an ambulance crew by live streaming with audio or video remotely to save valuable time. 24-hour availability of the portal is guaranteed. The previous data from NIDAmobile like the insurance card can be transmitted easily, meaning that the doctor can gain a picture of the overall situation and potentially helping without needing to be at the site. It is possible to display images and videos from the site on the tele-emergency doctor portal. Seamless data transmission, e.g. instructions, a live ECG or vital data, ensures a reliable exchange of information. Another specific feature of the tele-emergency doctor is its interoperability and therefore independence, e.g. from the control centre, hospital, ECG manufacturer and even the case documentation.

NIDA for control and management

NIDA*analyse*: comprehensive reports and analyses for managers

NIDAanalyse is an outstanding basis for effective quality and process management. This solution offers emergency service providers and medical managers, emergency services, directors and officials a convenient dashboard interface with which they can thoroughly observe and evaluate all determinative response data. Explorative evaluations can be created for all the data recorded in the emergency protocol. With NIDAanalyse's drill-down options, the user can observe interesting values in detail.

NIDAanalyse offers clear evaluation and individual analysis options.

► **Visualisation or recorded data**

► **Observe all response data on a convenient dashboard surface**

► **Explorative evaluations according to all the data recorded in the emergency protocol**

► **Set and store your own filters**

► **Create individual evaluations**

► **Evaluate capacity utilisation, rescue periods, care and handover times**

► **Export in various formats**

On this basis, processes and even a possible need for training the team can be optimised. And valuable insight can be gained for response and vehicle planning. For example, the alarm time distribution for certain days, or the response distribution according to the response location, can be observed. At the touch of a button, you can zoom in on these individual values while simultaneously displaying all detailed information for a comprehensive evaluation.
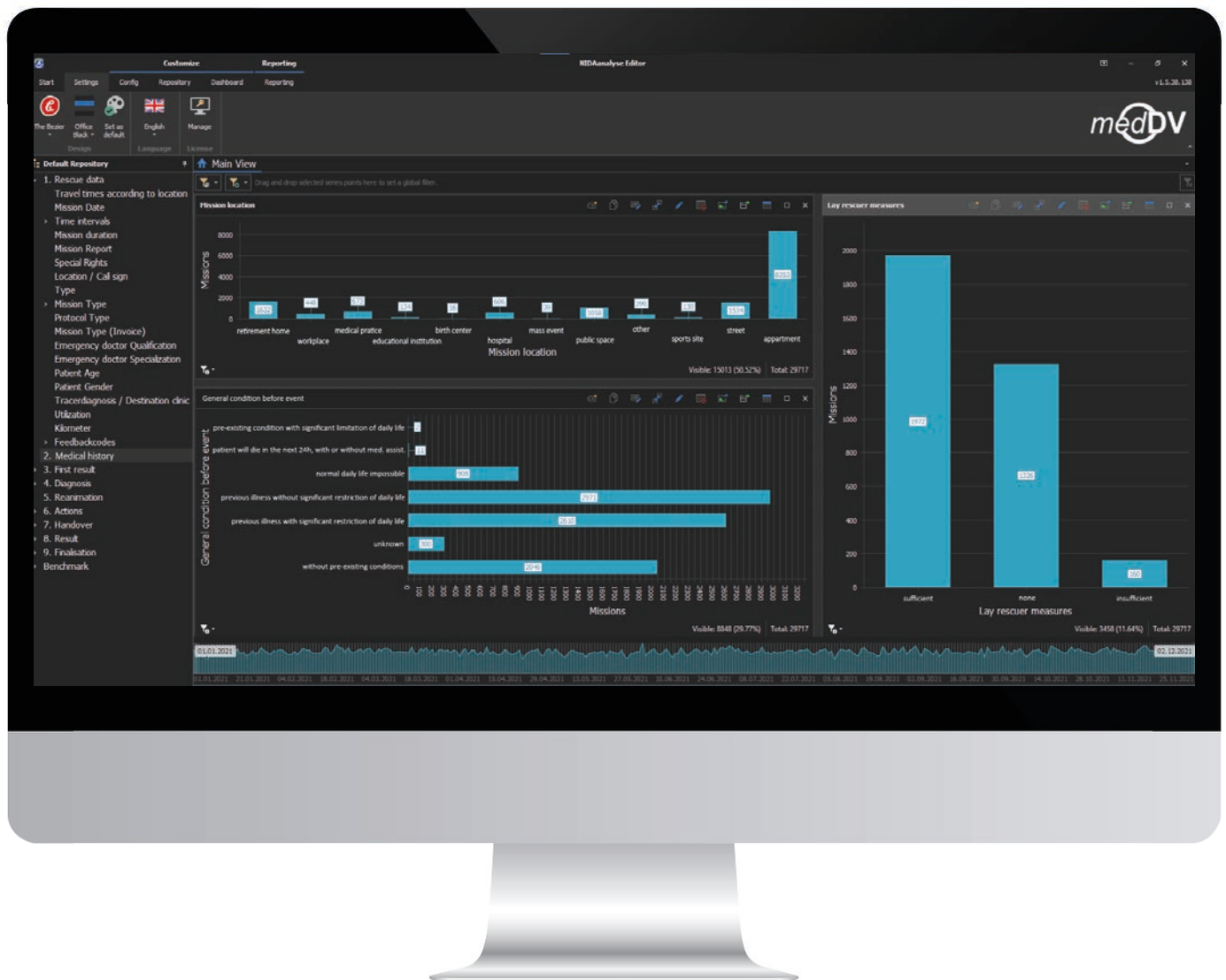
An overview exists at every point from technological rescue data on medical history to disinfection.

There you'll find a compilation of frequently used charts. The charts are interactively linked with each other.

NIDA from an IT perspective

NIDA is based on a comprehensive and carefully-considered client/server architecture.
The NIDAclient provides the user with individual access to the data which is relevant for them.
The NIDAserver is the communication and database portal for the NIDA applications. It manages all the connections and ensures data is stored securely.

Control

centre

NIDA

ÄLRD / QS

Administration

NIDAserver

Hospital

Billing
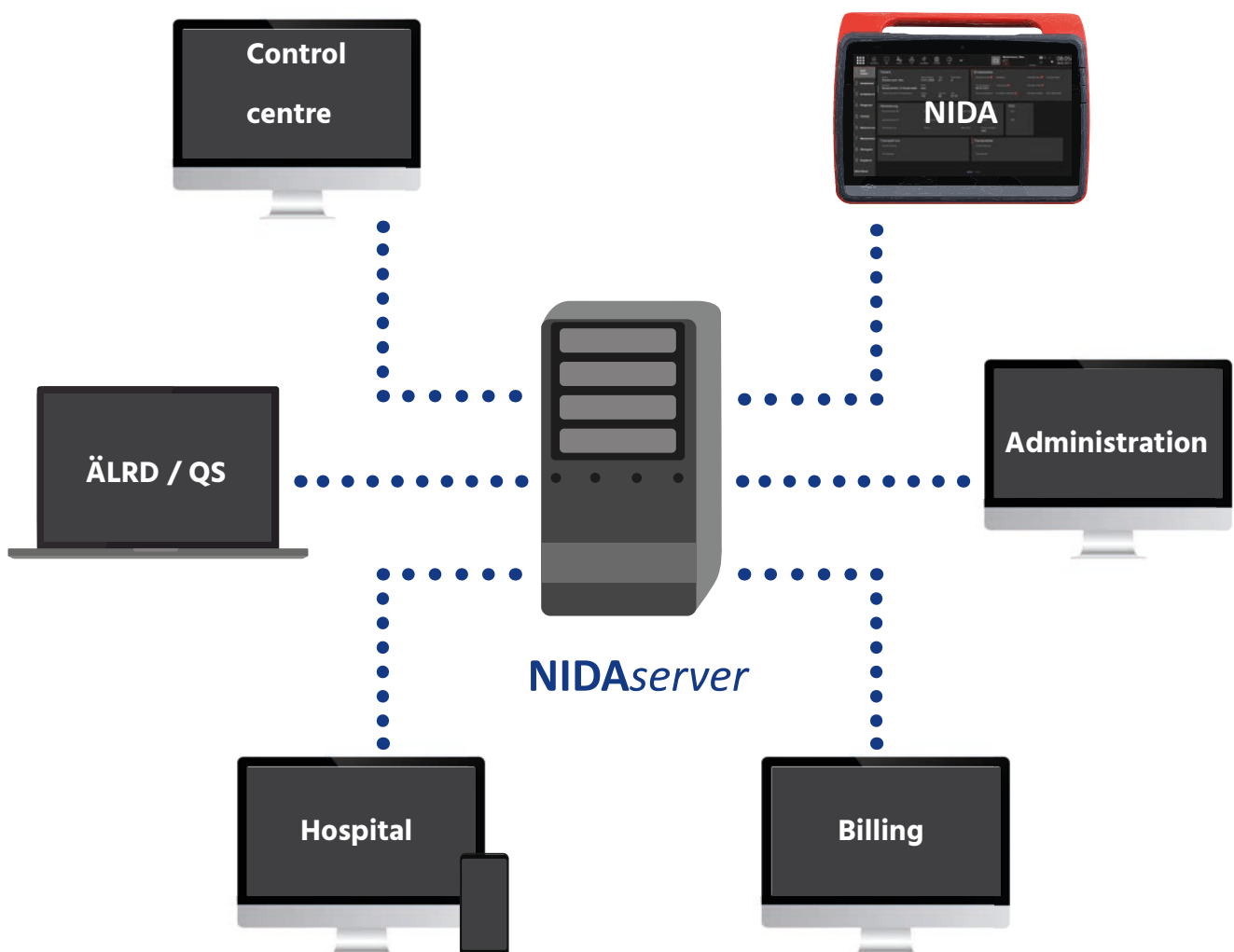
NIDAclient: personalised application access with an intelligent rights and authorisation concept

The end user can access their user-specific data with the NIDAclient. This enables the NIDAclient to be configured differently depending on the functions the respective user requires and which rights it is given. The user registers on the system with a username and password and can use the modules which are activated for them. The data is also displayed according to their authorisation and may be approved for post-processing.

NIDA offers a highly-differentiated rights and authorisation concept which the customer can manage themselves. This means its organisational roles can be perfectly carried over to the system. In NIDA, each user will only see the information that is relevant to them and which they are authorised to access. NIDA also documents when which user has accessed which information and what role and access rights it had at this point in time. This is how NIDA offers a comprehensive security concept including documentation to ensure data protection compliance.

In NIDA, each employee can only see the data they are authorised to view.

NIDA from an IT perspective

The key functions of the NIDAclient are about researching and post-processing cases and processing master data for mobile systems. The NIDAmonitors are special NIDAclients. They are used, for example, to display pre-registrations at the hospital or patient information in the case of a mass casualty incident. These monitors or arrival boards are primarily used when you need to provide an overview of information at a glance.

## NIDAserver: the data and communication portal

All data recorded in NIDA is stored in a database. The NIDAserver ensures that this data is recorded, stored and output again when required. Data from third-party applications, like billing systems, can also be used in the data exchange with the NIDA system.

The NIDAserver also plays a key role in communication. For the alert process, the data record is received by the control centre and passed on to the right mobile NIDApad. Feedback from NIDA to the control centre also takes place via the NIDAserver. This also applies to hospital pre-registrations and live data transmission to the right hospital.

On premise, Hosting/Cloud, VM possible

An individually scalable solution

Depending on the size of the emergency service, the NIDAserver can be distributed across multiple platforms and locations. For example, your own alert service could realise the control centre connection whilst another manages registration at the hospitals. This ensures that all functions work reliably and independently of one another and do not cause issues for the other functions. This enables large data quantities to be managed easily and makes complex evaluations at the alert stage possible without any speed issues.
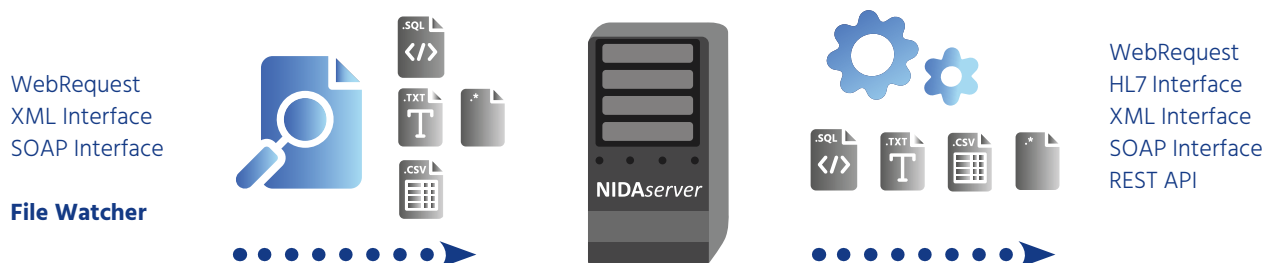
NIDA*gateway* **NIDA***server* **Evaluation** **Archive**
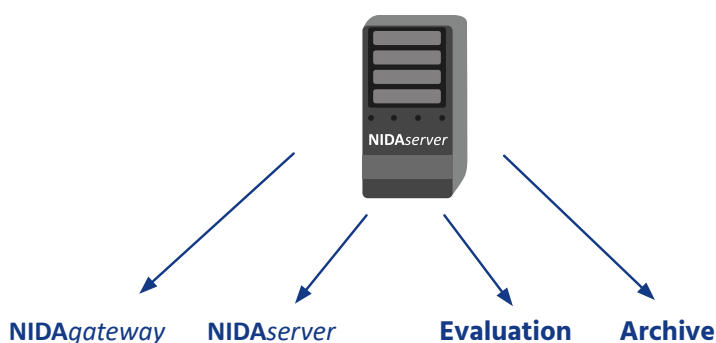
► Intelligent architecture

► Excellent scalability

► Flexible interfaces

► Convenient administration

► Comprehensive security standards

Flexible interfaces

NIDA is an important information and documentation platform for ambulance services. Communication and data exchange with other systems (e.g. medical devices, control centre, hospital, billing and materials management) is key here.
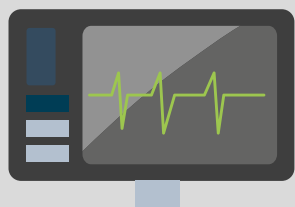
In order to be able to communicate with these systems, NIDA has "learned" to send data via various channels to different recipients (servers). The corresponding information is compiled and transmitted by NIDA. On a call, NIDA also communicates directly with a wide range of data providers to collect and display information.

The NIDAserver speaks a huge range of IT languages at the input and output level and understands a wide range of formats. It is able to use data interfaces, e.g. XML, CSC and proprietary and modern interfaces, such as REST and SOAP. It is, of course, also possible to achieve direct communication at database level.
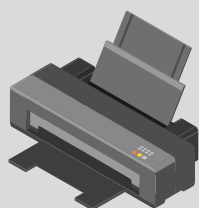
WebRequest
XML Interface
SOAP Interface

File Watcher

NIDA*server*

WebRequest
HL7 Interface
XML Interface
SOAP Interface
REST API

An overview of the structure

Rescue service

Customer system

Medical devices

Images and videos

Printer

Insurance card

NIDAmobile

NIDAmobile

NIDAmobile

NIDAclient

NIDAgateway

NIDAserver

Treatment capacities

Control centre

NIDAanalyse

NIDAarchive

NIDAanalyse

Billing

External
databases
and registers

Hospital

NIDArecords

NIDAarrivalboard

On all
devices!

NIDAtracker

NIDAserver

KIS

Telephone system
Pagers
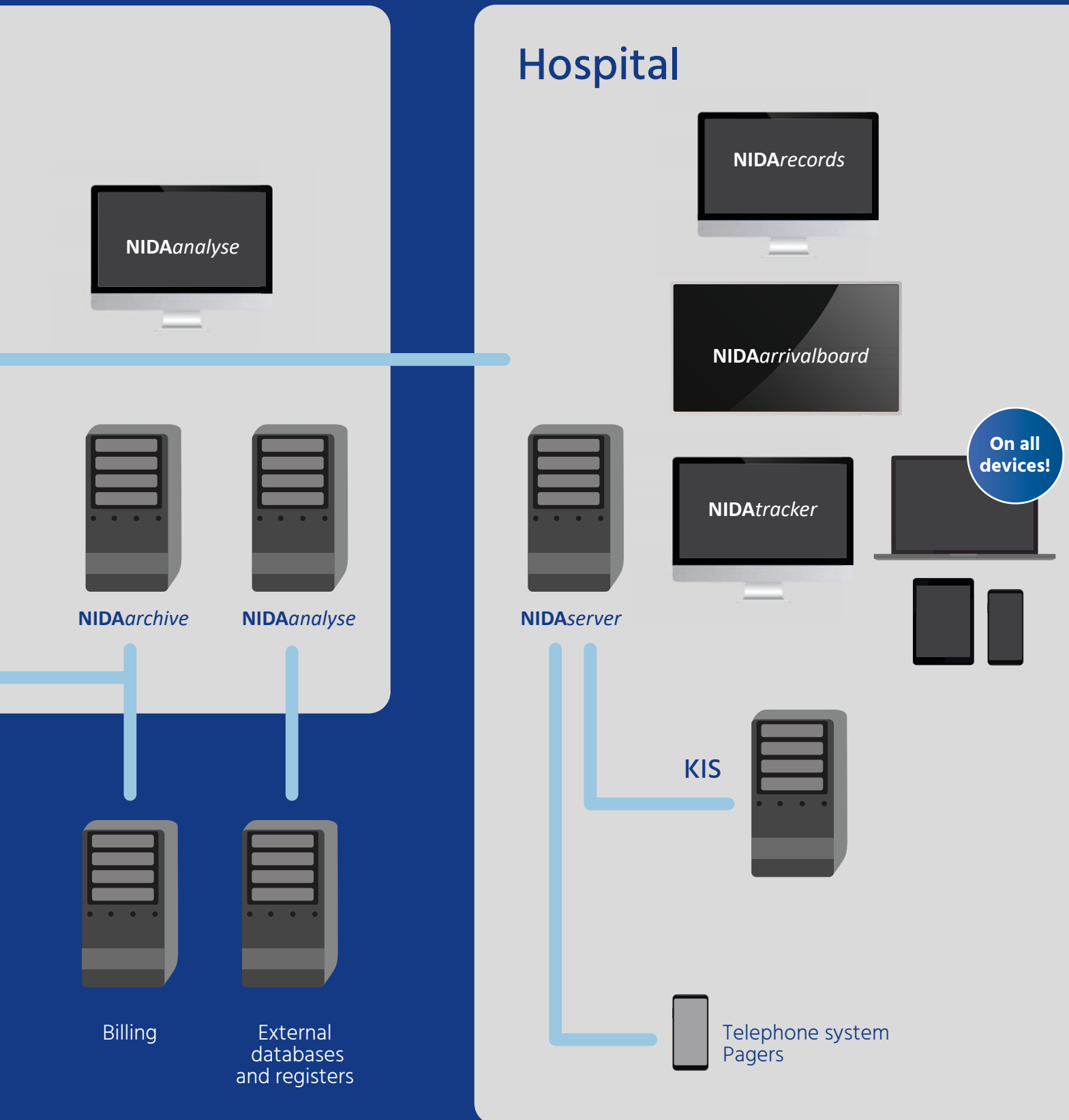
About **medDV GmbH**

Since 2017, the company headquarters of med-DV has been based in our own company building in Fernwald in Middle Hessen. This location is perfect for our rapidly-growing company. On the one hand, the management team feels a close connection to the Gießen region. On the other hand, this location is logistically convenient for working together with customers and partners throughout Germany and abroad.

All the company's departments are based at the medDV headquarters. This includes develop-ment, assembly, warehousing and repair, sales, vehicle conversion, accounting, service, marketing and project management. The architecture promotes the employees' creativity and collaboration between teams. For example, there is a creative space which offers a perfect environment to develop new ideas and concepts for our development and service teams. Modern, well-equipped training rooms are available for training sessions and customer training.

In 2023, medDV is celebrating a special anniversary in a young industry which is constantly evolving.

The company has been operating successfully for twenty years and has been a tried-and-tested and valuable partner for its customers over this time.

medDV GmbH was founded in 2003 and has since become a full-service provider of holistic applications, having started as a developer of database applications, and is now a market leader in Germany. medDV offers tailored hardware and software solutions for emergency services, control centres and hospitals.

Customers value the company's practical way of working. This is because the team offers a unique combination of experience and knowledge from everyday work in the emergency services and an extraordinarily high level of specialist expertise. With a clear vision and passion for innovation, the medDV team is constantly striving to expand and optimise its solutions according to its customers' needs.

An overview of the company
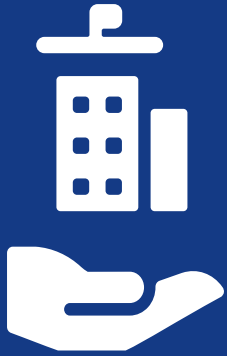
Founded in 2003

Fernwald in Hessen

Hamburg

100 employees

Over 6000 systems in use

Efficient practical solutions for practical use

The developers and consultants at medDV understand the challenges faced by control centres, mobile responders and hospitals in detail and are therefore able to develop tailored solutions. The managing directors and shareholders, Carsten Rausch and Gunter Ernst, have personally worked in the emergency services for over fifteen years.

The experts at medDV understand where the emergency services' processes need to be optimised and which processes need to be designed in a particularly time-efficient and cost-efficient way. They understand the commonly used software and database management in the emergency services and develop solutions which can be seamlessly integrated into existing IT structures. Since 1995, they have been working hard to develop new communication systems, databases and mobile solutions.

"

At medDV, we understand what our customers need.
We personally have years of practical experience in the ambulance service, which we use in our product development.

When selecting our employees and teams, we ensure that we not only have the right specialist qualifications in IT and technology but that our employees also have practical experience as emergency responders. This enables us to offer our customers solutions which meet their exact requirements. "

Gunter Ernst and Carsten Rausch
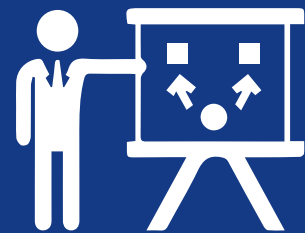**Managing Directors at medDV GmbH**

A one-stop shop for solutions

Hardware and software development
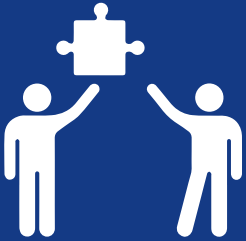
Customer service and maintenance

Project planning and implementation, courses, training

Delivery, vehicle conversion, assembly, repair and service

Projects, partnerships and certificates

Partnerships with over fifteen companies and organisations

Involvement in scientific research projects to optimise emergency services technology

Certificates as high standards for product quality and data security

NORMEN UND RICHTLINIEN

medDV GmbH

Rudolf-Diesel-Str. 10–12

35463 Fernwald

Phone +49 6404 20517-0

Fax +49 6404 20517-517

info@medDV.com

www.medDV.com

_med_DV

Saving Lives.
Optimising Processes.
Reducing Costs.