



DESIGNA

DESIGNA

ABACUS



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Content

4	INTRO
5	CAPABILITIES
6	IT NETWORK
8	ASP PRIVATE CLOUD
10	SOFTWARE
12	PARKING HQ
14	ACCESS CONTROL
15	PAYMENT SYSTEMS
16	HARDWARE
22	SERVICE



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DESIGNA transcends boundaries  
to bring the future here today.

DESIGNA is known as the global technology leader in the parking management industry. As the catalyst for the industry, DESIGNA also delivers something that only a very few companies are able to offer – innovative ideas. For DESIGNA it has never been a question of successfully adapting, but rather of being successfully at the forefront of the industry. Since its founding in 1951, our company undergoes constant, flexible development. To make sure that this is driven forward over the long term, our company has its own innovation process that ensures that fresh thinking has the space that it needs to flourish.

Yet DESIGNA is not only dedicated to the target-orientated creation of new, innovative products. We are also focused on skillfully networking the existing with the new, for example open interfaces that can be extended without difficulty and the clever implementation of ideas that create genuine added value. The promotion of pilot projects such as using Application Service Providing to operate parking garages over the Internet with a centralized server is just one example from the many future possibilities that we are delighted to offer our customers. In the emerging field of intermobility, there are so many new ideas. DESIGNA is an innovative and reliable partner, standing by our customer's side, from the initial development of ideas right through to the complete technical implementation of their parking management solutions.



## ABACUS

### Intro

Requirements may change daily, but at least the answer is always the same: ABACUS.

At DESIGNA, constant questioning and scrutiny are both our passion and responsibility. Only from this stimulus is it possible to create something truly significant. A parking management system that sets new standards: ABACUS. From the very beginning, the needs of our customers were at the heart of ABACUS' development. Not only in terms of reliability and user-friendliness, but above all in view of the possibilities for integration and networking. The requirements of major regionally and internationally networked projects are consistently met, through:

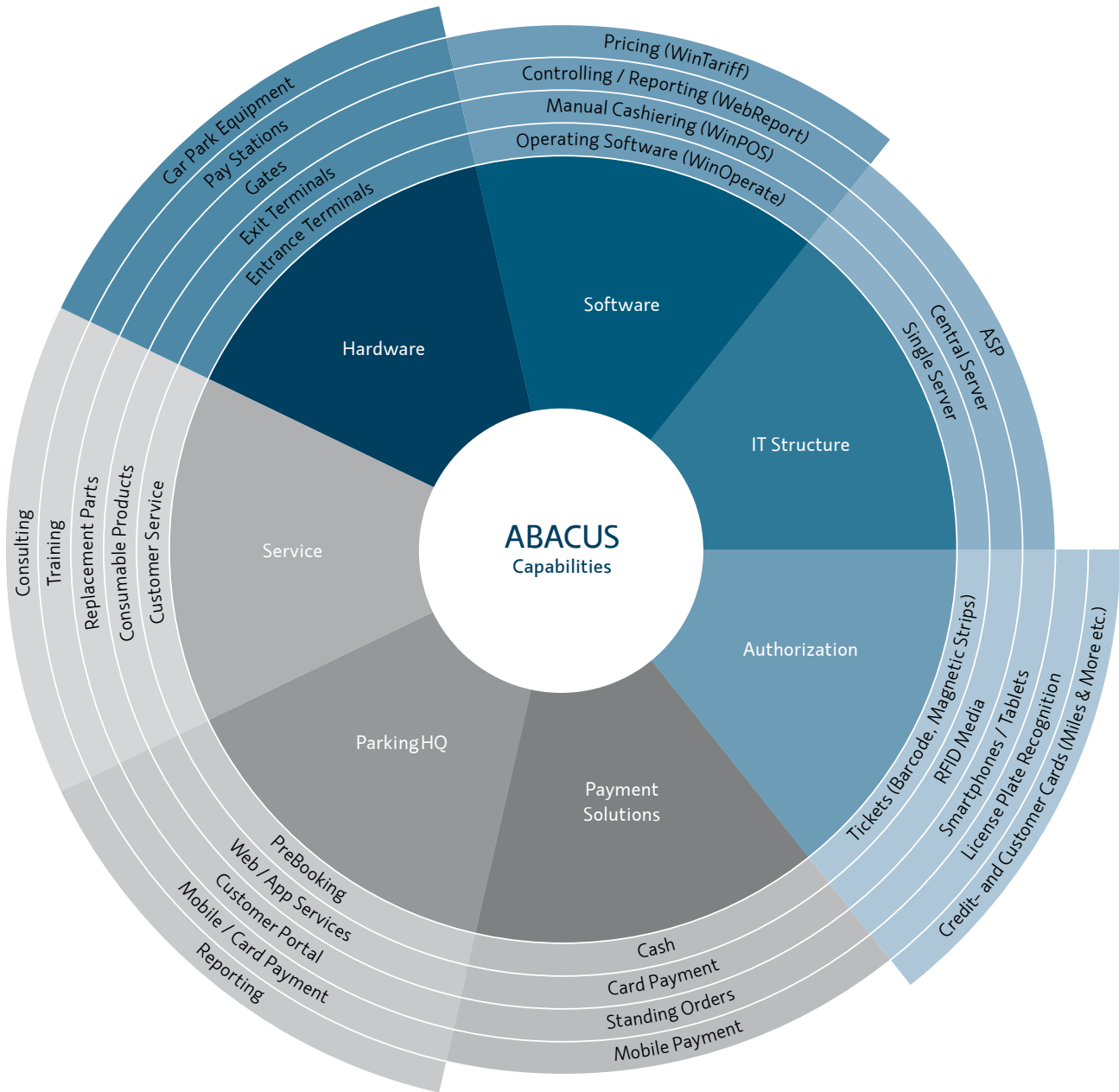
- The implementation of internationally recognized hardware and software standards
- The open and transparent interface design
- The virtually unlimited scalability

Thanks to these features, ABACUS is already the ideal solution for medium-sized systems of between five and 25 terminals – with the option of being able to incorporate these into a larger network in the future.

Whether city-wide networking, airports, shopping centers, hospitals, or hotels and events centers, ABACUS is the economical and above all *future proof* solution that offers the best protection for your investment. And our success speaks for itself. To date, more than 15,000 DESIGNA systems have been installed worldwide – and that number goes up every day. Thanks to its outstanding features, today ABACUS occupies a market-leading position in terms of technology.

ABACUS

Capabilities

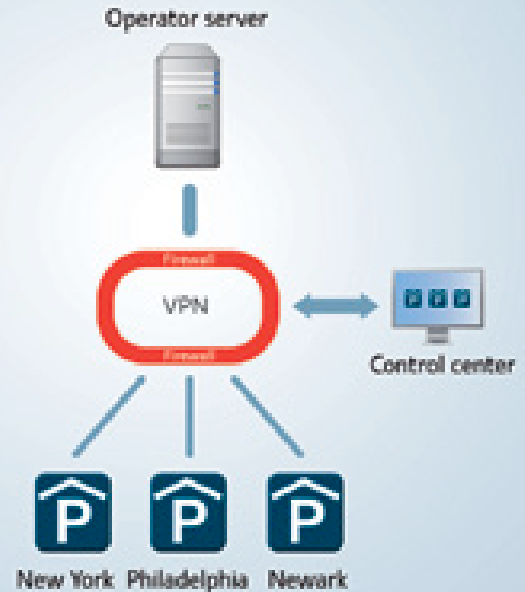


ABACUS is the intelligent operating system that thinks for itself. The system manages, tests, networks, and offers a wide range of possible uses and services. ABACUS has been guaranteeing future viability since the year 2004.

## Single Server



## Central Server

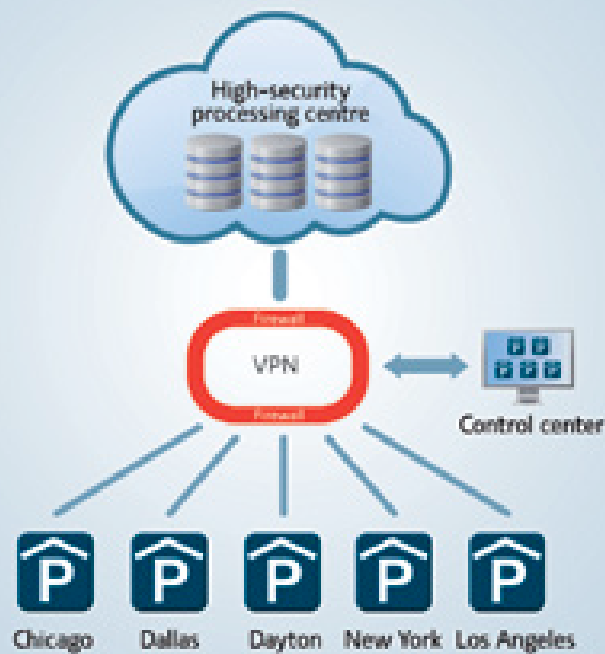


The network that thinks for itself.

Networking is the defining subject in many sectors. For this reason, ABACUS was designed with distinct networking possibilities for major national and international projects. The ABACUS technology supports operators by providing a tailored solution for linking connected parking facilities with one another by VPN (Virtual Private Network) and tapping into potential synergy and savings effects. A complete overview is available in real time. Incoming data packages such as speech and video information, external alarms or statistics are bundled, monitored and evaluated in the corporate headquarters.

Enhanced centralized capabilities give you the power to react at lightning speed to ongoing situations and the complete takeover of monitoring and service functions in connected parking facilities 24/7. ABACUS is the system that is ideal for use by all operators, whether as a small- or large-scale solution. How you ultimately want to operate the parking facilities and structure the associated IT system is entirely up to you.

## ASP Private Cloud



## Server concepts

### Single Server

**The system is operated directly on a server situated in the parking facility.**

- The operator is responsible for scaling, security, data security, server technology and software updates
- Live access to all system data for the connected facilities

### Central Server

**Multiple parking facilities are operated on a central server over a VPN.**

- The operator is responsible for scaling, security, data security, server technology and software updates
- Option to connect to a central control room
- New facilities can easily be connected to the existing server
- Live access to all system data for the connected facilities
- All parking facilities run on the same software - new features and parking products can be activated quickly across all systems

### ASP Private Cloud

**One or more parking facilities are operated over the Internet (VPN) from a certified high-security processing center in Kiel, Germany.**

- DESIGNA IT experts are responsible for server structure and software
- Guaranteed operational reliability and data security, live access to system data for the connected facilities
- Guaranteed protection against virus and hacker attacks, automatic backups (daily)
- No costs for the server IT or the 24/7 hotline with direct access to the DESIGNA IT experts
- Additional facilities can be connected in an extremely short time
- The latest software on all systems at all times
- New features and parking products can be integrated in an extremely short time

## ASP - the reliable route to greater security in the IT network.

In order to fully exploit the technical and financial possibilities of modern parking management you must be able to rely on a smooth-running, fail-safe and optimally tailored IT network. This can require a large investment and many hours of work. Instead of installing a separate server for each parking facility or connecting multiple parking garages on a central server as is usually the case, with ASP (Application Service Providing), DESIGNA offers its customers the opportunity to network their systems over the internet and operate them via a high-security, certified processing center. Since 2008, DESIGNA has been the world's only manufacturer to offer this, and our ASP customers are delighted with the operational reliability and security of their systems. To date, more than 160 million entries and exits have been installed with ASP.

This is only possible through the use of DESIGNA's existing professional IT infrastructure. With the ASP solution, DESIGNA is able to take over the fail-safe operation of the central server and open up the possibility of leasing sector-specific applications over the Internet, saving time and money. This new form of IT structure will allow our customers to realize cost savings of up to 30%.

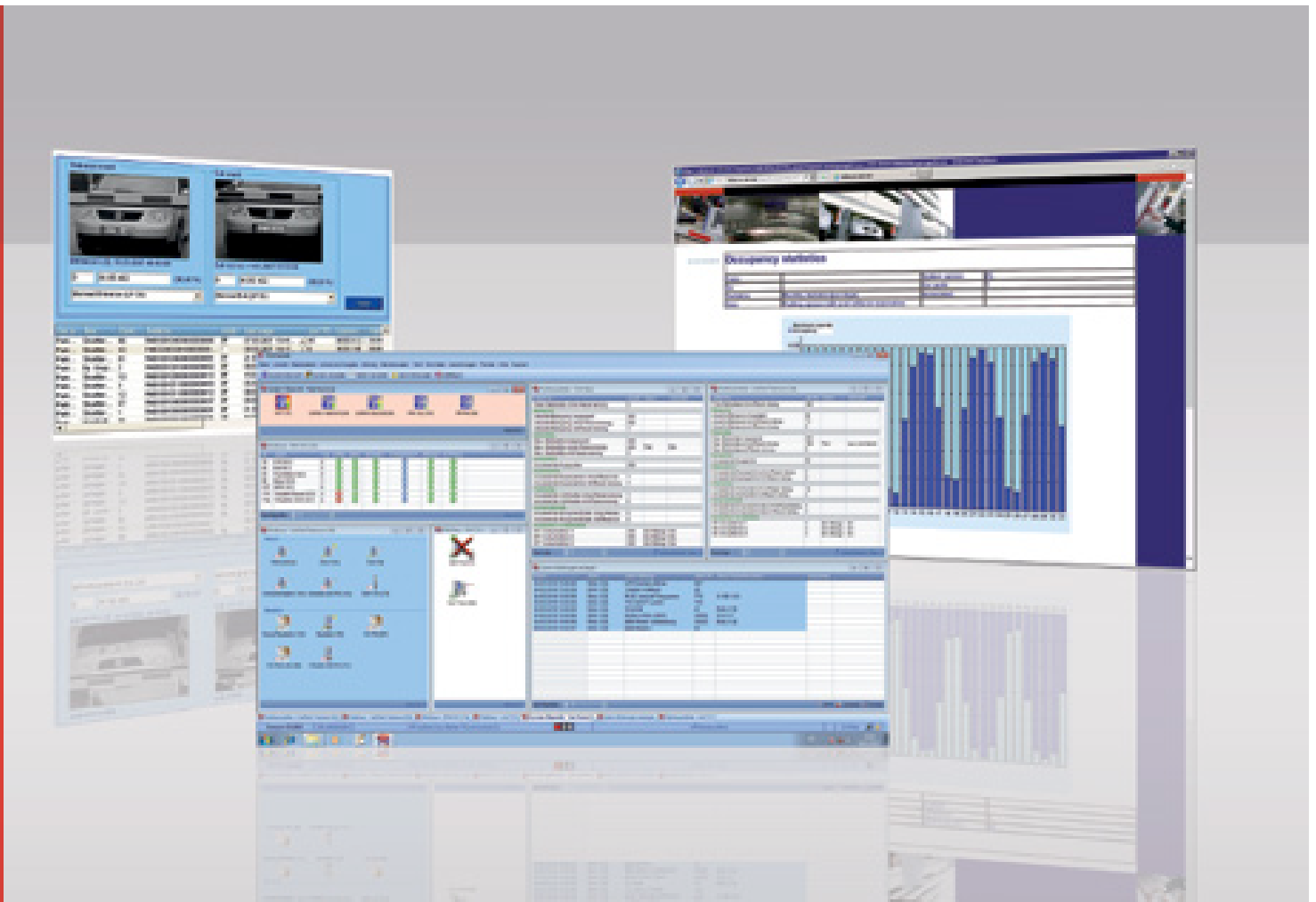
ASP customers benefit from the most up-to-date server technology and our DESIGNA experts' IT knowledge and experience. Operating risks resulting from server malfunctions and deliberate interference by third parties are reliably prevented. With ASP, our customers have constant access to the latest software and can rely on the most up-to-date security standards on all systems. Operating risks resulting from server malfunctions and deliberate interference by third parties are reliably prevented. ASP makes unlimited systems scalability possible for our customers, from individual parking facilities to systems that are networked internationally. Furthermore, the customer has complete cost control over the life cycle of the entire system. The central server is run from a professional computing center that fulfills all reliability and data security requirements. DESIGNA's recognized IT excellence in combination with the latest server technology means that the term system stability has assumed a new dimension.





## Benefits of ASP Private Cloud

- + Full control over every terminal in your systems, thanks to system-wide networking
- + Economical – up to 30% cost savings
- + Scalable to any degree, it is extremely quick and easy to add new terminals or entire parking facilities to the central server
- + Highest security standards, through automated backups, software updates and state-of-the-art, centrally installed maintenance tools
- + Latest server technology, ensures that the risk of manipulations (from within or externally) is minimized
- + Constant availability



## Software

### WinOperate

- The central application for control, monitoring and process visualization of all operations in the system

### WebReport

- All of the important statistics and evaluations are available to you via this web-enabled application by encrypted Internet access wherever you are in the world

### WinTariff

- This application enables the car parking operator to configure the fee structure

### WinPOS

- This application, which can run on any PC, offers multiple options for taking payments manually. The possible use of a touch screen saves valuable space at the point of sale

## ABACUS

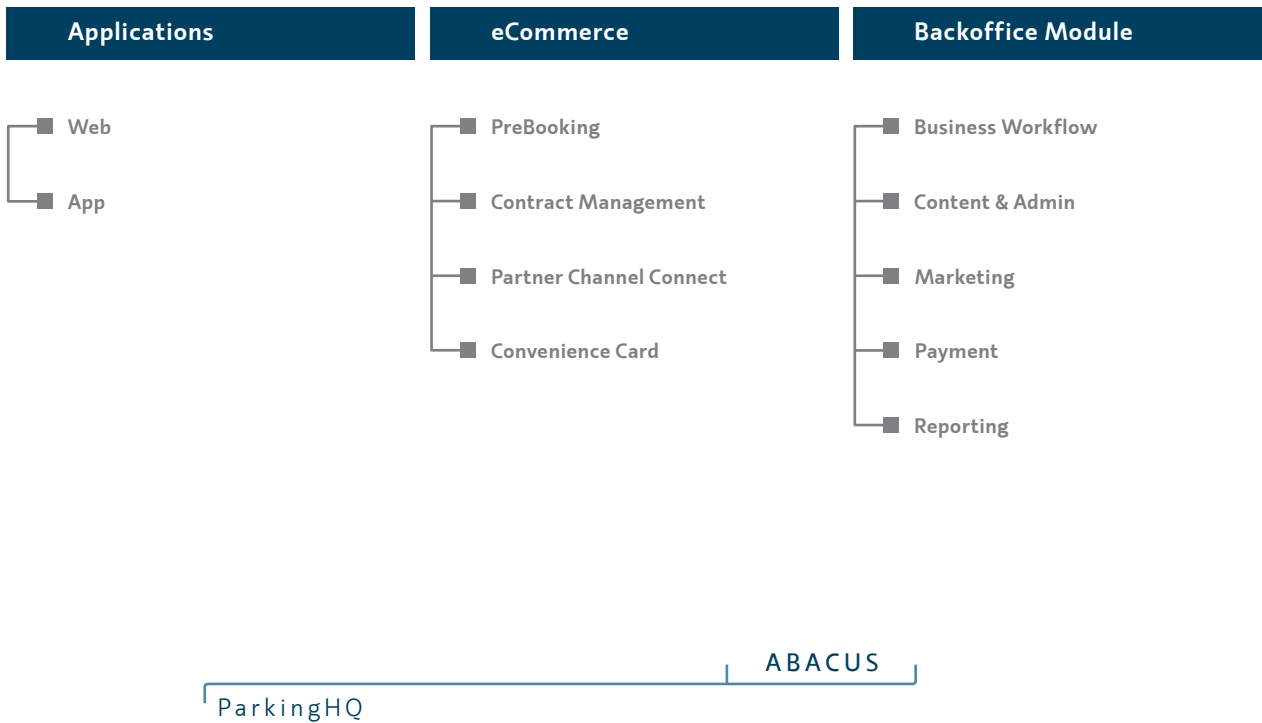
Software

Your life just got easier. The software.

We all know that software programs can make our working lives easier. Or more difficult. DESIGNA software ensures that the technology core of your solution will be easier to manage. An elementary building block in our software architecture is a clear user interface that is operated intuitively, whether for multi-faceted control or essential checking. The standard presentation of complex data and processes in a visual nutshell, is one of the greatest strengths of the ABACUS software. You get reports that clarify rather than distort. And functions that help instead of hinder.

Be it for operation, reporting or device control, technically mature applications are available that guarantee a reliable, efficient and interface-compatible operation of your system or parking network over the long term. Software is based on international standards such as Windows and, depending on the usage environment, is available over the Internet via VPN. To achieve this, every transaction during a parking event is assigned to the respective ticket in the central SQL database, saved over several months and made available to the reporting system. From here it is easily transferred to your company database. Data can also be imported seamlessly into third-party systems (like SAP) or other business software. On the terminal side a Linux operating system that has been specifically optimized for this task, takes over functional control and communication with the Windows server. As open source software with a global developer basis, Linux is synonymous with absolute stability, scalability and security.

# Overview ParkingHQ



ParkingHQ - A strong technology partner opens up new possibilities.

DESIGNA is extending its parking expertise in Internet-supported applications and services with ParkingHQ. This is made possible by our newly established alliance with ilogs information logistics GmbH. ilogs has over 10 years of experience in designing and developing web-based, innovative business process solutions. Many well-known companies have already achieved success in the implementation and optimization of their business processes, with ilogs solutions. DESIGNA's future technology and capabilities will continue to be enhanced through our extraordinary breakthroughs in technology, thereby opening up new possibilities to our customers in the field of intermobility and other advancements. One such capability is the integration of Internet-based applications and customer loyalty systems such as pre-booking, city networking systems and city cards. This partnership will considerably enhance the future competitiveness of our customers.



Parking information as a valuable service over the Internet – and as an app.

A new service is capturing the hearts of DESIGNA customers. Parking facility operators can get real-time information about their connected facilities directly onto their smartphone or computer with an operator-specific Internet solution. This practical application provides dynamic information about the occupancy status and capacity of the parking structure or network. Plus this app comes with many additional benefits for your parking customers, providing them with real-time facility information such as prices, equipment, accessibility, directions and services, and even lets them reserve parking spaces.

## Your Parking Garage on the Internet

- + **Problem-free addition of free parking spaces** – no matter how many there are
- + **No effort** – easy to use via existing modules
- + **Comprehensive range**
- + **Quick-check function** – a list of free spaces
- + **Practical price comparison** – all the prices at a glance
- + **Reservation of the chosen parking space** – available as an option
- + **Services at a glance** – a list of facility services, incl. opening times
- + **Directions** – free spaces are shown on a mini map



## ABACUS

### Access Control

## Security and service thanks to flexible authorization processes.

When there is support for a large number of different access control and payment methods, a system can be optimally integrated into various operating environments and provide a smooth access control procedure. ABACUS not only supports barcode and magnetic strip technology (side and middle-strip variants), it also supports all the latest smartcard technologies for authorization. For daily parkers, the smartcard is the most convenient form of parking. Located inside the car's front windshield, the barrier opens as soon as the car approaches the parking facility barrier. It's completely contact-free. This is made possible by an invisible RFID tag (RFID = radio frequency identification) on the smartcard.

Another option for access authorization is the License Plate Recognition system LPR, which uses a camera installed at the entrance and exit to reliably check the approaching customer automatically based on the vehicle license plate, which it checks for valid access authorization using integrated recognition software. In conjunction with license plate recognition, daily parkers are able to enjoy VIP services. Once they are recorded on the VIP list, customers are able to enter and exit without a ticket. In addition to receiving additional operating data covering garage occupancy, duration of stay and origin of the vehicles, the LPR system operators and their customers benefit from enhanced security and service.

## ABACUS

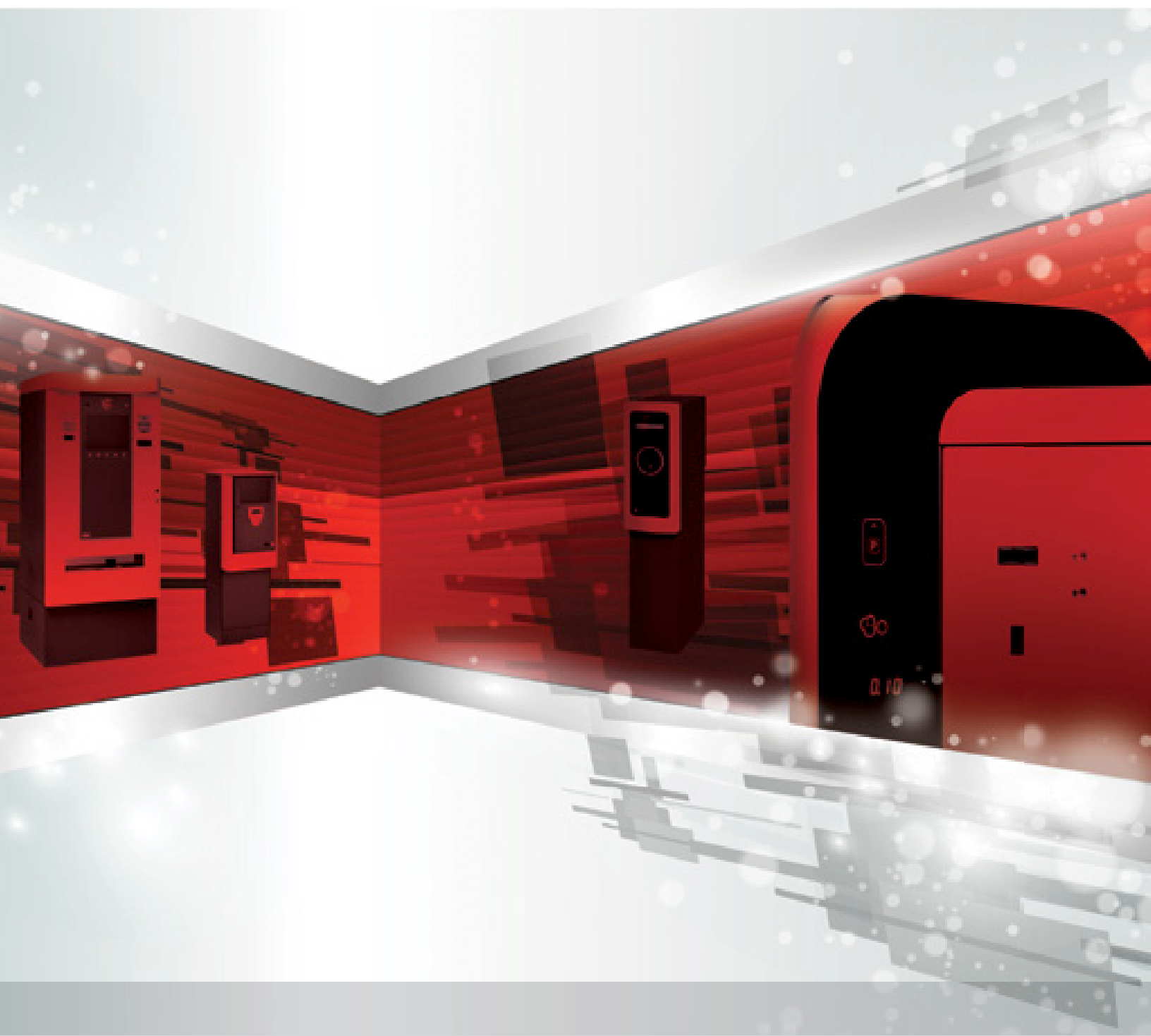
## Payment Features

One thing you can count on - enhanced revenue control and payment options.

The parking management systems of today must have greater capabilities. For this reason, ABACUS supports all important payment and billing alternatives. For us, the safe processing of credit cards is a particularly important responsibility. In the standard version, ABACUS supports credit card payments at all entrance and exit terminals. This technology pays off for your parking customers, making both a ticket and a trip to the pay station superfluous. For us, the safe processing of credit cards is a particularly important responsibility.

Parking garage operators and their customers, as well as the financial institutions backing the customers' credit cards, can with good conscience recommend using ABACUS systems for their payment transactions. This is substantiated by the ABACUS systems' PA-DSS certification. All systems that safely process, store and relay credit card data are audited in accordance with prescribed standards. DESIGNA gives our customers the greatest possible credit card processing security, with PA-DSS certification of parking management systems and the inspection of our current PM ABACUS system versions. ABACUS offers interfaces to "chip & pin" payment terminals according to EMV guidelines.







## Our standard is success. The hardware.

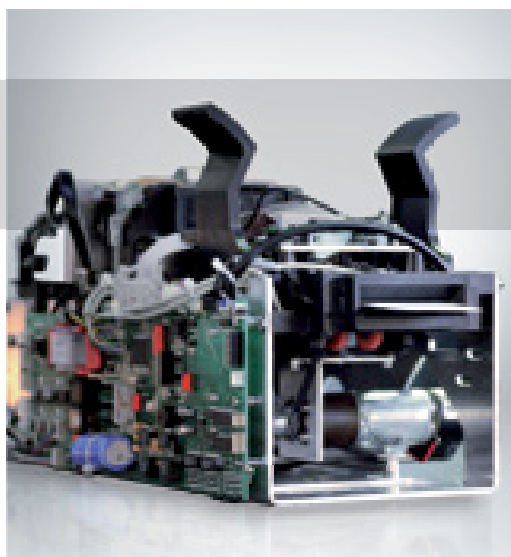
At DESIGNA, we are redefining the understanding of the parking technology field. Our highly trained engineers contribute their vast knowledge and innovation, so we can guarantee our customers the best possible products and technology. Each ABACUS system is carefully tailored to the customer's specific needs, making almost every system unique. Whether you use terminals from our 120 family or our BlueEdition family, all ABACUS components are:

- Optimally tailored to their function
- Designed to ensure they interact smoothly
- Unconditionally reliable
- Impressive in their functional scope
- Set the standard for scalability and adaptability to the future

The system has a modular technical structure, a cutting-edge terminal controller and is based on the consistent use of Ethernet standards, meaning that all system components are open for expansion, integration and networking. As a result it is possible to easily incorporate external alarm signals, information systems or databases into an ABACUS system. Plus, by using VPN (virtual private network), large-scale structures can be built extremely cost-effectively and large-scale structures can be built extremely cost-effectively.

## Heart and brain in one. The multicon.

The brain is at the heart of ABACUS. Multicon, the intelligent core module for processing tickets and debit or credit cards, is redefining reliability. Key features are its optional range of functions and its extraordinarily high operating speed. But we would not be DESIGNA if we had not also paid special attention to this module's ease of maintenance as well as all of its innovations. The quick and tool-free access to the ticket guide is therefore just as important to us as the maintenance-free, self-sharpening circular blade for cutting the paper tickets.



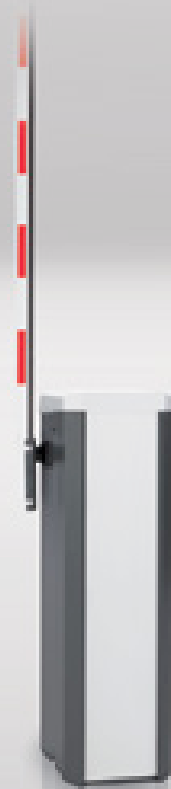
# 120 family



AUTOMATIC PAY STATION  
**APS 120 ECO**



ENTRANCE / EXIT CONTROL TERMINAL  
**ENT 120 / EXT 120**



CAR PARK BARRIER  
**Gate**

ABACUS

Hardware

Two product families, one success story -  
120 & BlueEdition.

At DESIGNA, technological change is never a risk, but rather an opportunity. Our two product families - 120 and BlueEdition - are the pillars of our success. While the 120 product family still guarantees reliability and efficiency, our BlueEdition impresses with additional services such as significantly reduced power consumption and an intuitively structured operating concept, best experienced with our revolutionary automatic pay station ONE. Our goal has been, and will continue to be, to consistently utilize technological change that will benefit our customers. In addition to its high-tech functionality, our hardware also incorporates progressive design and is high-tech in its ecology and ergonomics.

# BlueEdition family



ENTRANCE CONTROL  
TERMINAL  
**In +**



EXIT CONTROL  
TERMINAL  
**Out**



AUTOMATIC PAY STATION  
**ONE**

## ONE colors





## ABACUS

### Hardware

## ONE - the pay station from DESIGNA. Unbeatable.

With the new ONE pay station, the perfect synthesis of design and functionality has made its way into the pay station marketplace otherwise dominated by the grey standard. ONE now allows DESIGNA's passion for innovation to become externally apparent. For the first time we have a pay station consistently responding to customer needs – and not the other way round. An unparalleled harmonious design ensures a clean and modern appearance with a convenience of operation. Using self-explanatory icons on the gleaming front side panel, users are navigated step-by-step to the next item from the top downwards. Information and interaction are clearly separated from each other. The result is a completely different understanding of what operation involves. With the services it provides, the ONE pay station thus defines a new standard all its own.

### Benefits ONE

- + Perfect synthesis of design and function
- + A harmonizing design
- + Unique convenience of operation with icons
- + Clear physical separation of information and interaction
- + Self-Explanatory icons, understandable in any country
- + Perfect incorporation into any surroundings thanks to being able to select the color
- + Detachable side panel to facilitate transportation and installation
- + Intuitive operation for paying that much quicker
- + Low power consumption due to intelligent energy management
- + Corner element for protecting privacy



## The In & Out terminals - efficiency lies in calmness.

In a world of limited resources, the realization that energy should be used carefully and intelligently is something that has been reflected for many years by DESIGNA products. Take, for example, our entrance/exit terminals In & Out, which have the lowest power consumption in their class by far. The new terminals are based on our tried-and-trusted ABACUS operating system and thus all state-of-the-art RFID and networking technologies. Just how much development know-how is built into the terminals is shown by the innovative energy management system. The machine stays in sleep mode for as long as no vehicle activity is registered and only wakes up when a vehicle approaches the terminal, effectively reducing the energy required. The design of the In & Out terminals has been influenced by the raised design of current vehicle classes, affecting the position of the ticket slot, and also by a drive to simplify maintenance and servicing work. Your operators no longer have to put themselves in danger standing on the tarmac to refill the terminals with tickets, for example, as the service access has been specially positioned at the side. The entire hood can now be removed for maintenance work so that every component is accessible from three sides. All of these innovations, together with ultramodern processor technology, have been packed into an aluminum housing with a high-quality finish. The terminals require very little space. The best proof that “less” is indeed sometimes “more.”

### Benefits In & Out

- + Lowest energy consumption of their class
- + Future adaptability guaranteed from the ABACUS platform
- + Raised level of user-friendliness thanks to intuitive use
- + Illuminated ring effectively stops any irritation experienced during the operation
- + Heightened level of control panel to reflect today's car sizes
- + Optimized service and maintenance friendliness thanks to side accessing
- + Service hood fully detachable, technical units accessible from 3 sides
- + Little installation space required
- + Robust and resistant on account of a high-grade aluminum housing
- + Flexible authorization (magnetic strips, barcode, smartphone, RFID)
- + Easy ticket emptying thanks to the flexible bin
- + More tickets can be taken up, bin adapts itself to the fill quantity



In



In +

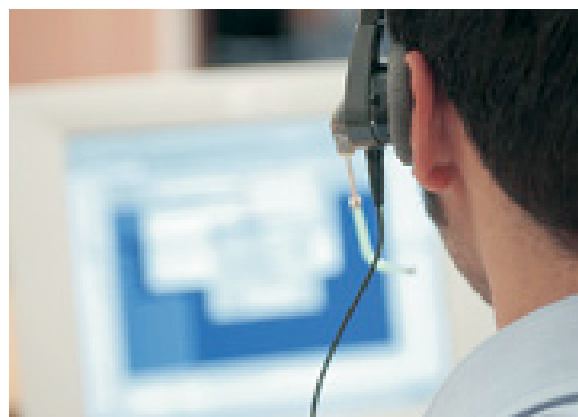
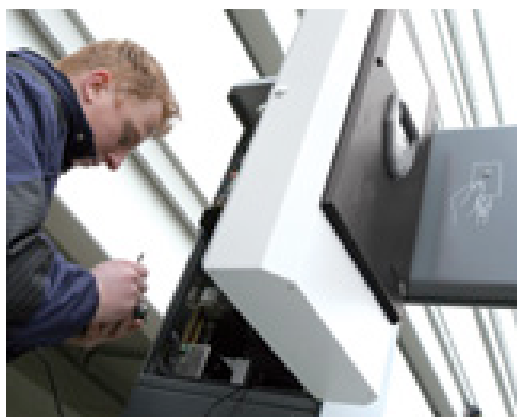


ABACUS

Service

Our goal is to provide superior service 24/7.

Repair service is the best when it is not needed. For this reason, quality management and our commitment to superior service are enshrined in everything we do. Should there be an unexpected system impairment that you are unable to fix yourself, our US Business Partners stand ready to assist you quickly, effectively and directly. You can also get 24/7 service via our telephone support desk - with qualified engineers who know what they are talking about - or via on-site maintenance or with one of our highly trained service technicians who are available 24/7.



The DESIGNA quality management system ensures that we adhere to our high quality of service at all times. For us, this includes total support through in-depth advice at each phase of a project as well as intensive training courses in which we familiarize our customers with DESIGNA's products and generate real knowledge. Our customers experience this superior service every day. It's the strongest proof that DESIGNA pays more than just lip service to customer service.

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## PARKING SYSTEMS

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