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Dr. Thomas Waibel
CEO of DESIGNA

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DESIGNA transcends boundaries where it makes sense to do so.

When you hear the name DESIGNA you immediately think of efficient parking management systems. And you would not be wrong. But today DESIGNA offers much more. As the catalyst for an entire sector of industry, in addition to purely technical equipment and the software that goes with it, 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. In order to achieve this, ever since the company was founded it has undergone constant, flexible development. To make sure that this is driven forward over the long term, the company has its own innovation process that ensures that fresh thinking has the space that it needs to flourish.

Yet it is not only a question of target-oriented creation of new, innovative products. It is more a matter of 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 centralised server is therefore only one example from the many future possibilities that we are delighted to be able to offer our customers. In the emerging field of intermobility in particular, these ideas are a long way from being exhausted. DESIGNA is an innovative and reliable partner at its customers side, from the initial development of ideas right through to the complete technical implementation of their parking management solutions.



PM ABACUS

Intro

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

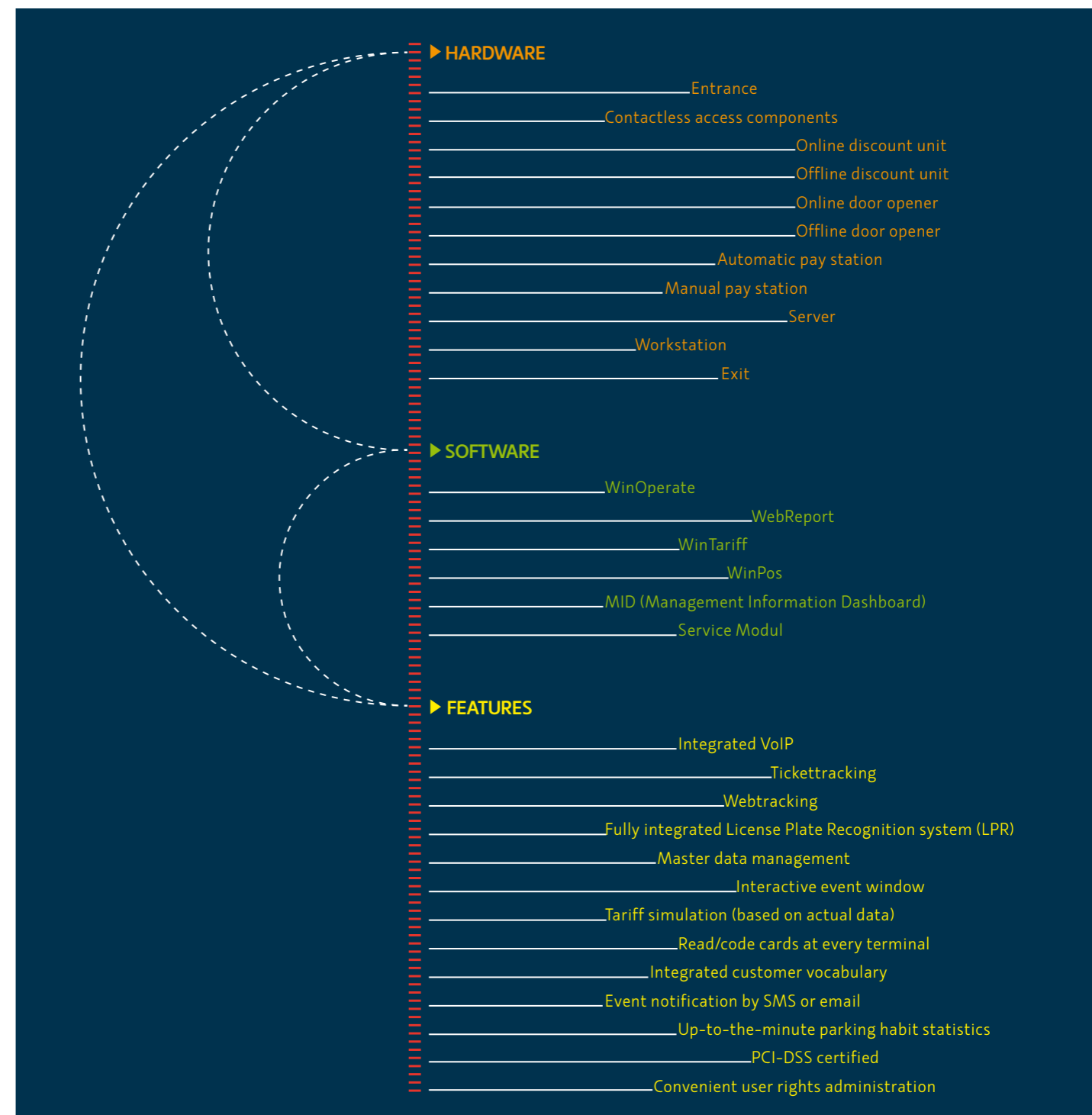
For DESIGNA, constant questioning and scrutiny is both our passion and responsibility. Only from this stimulus is it possible to create something truly significant. For example a parking management system that sets new standards – PM ABACUS.

From the very beginning, the needs of our customers were at the heart of PM 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 regional and international networked projects were consistently met, through the implementation of internationally recognised hardware and software standards, through the open and transparent interface design and not least through the almost unlimited scalability.

Thanks to these features, PM ABACUS is also already the ideal system for medium-sized systems of between five and 25 terminals – with the option of being able to incorporate these into a larger network in future. Be it city-wide networking, airports, shopping centres or hotel and events centres: PM ABACUS is the economical and above all future-proof solution that offers the best protection for your investment.

And our success speaks for itself. Many more than 6,000 DESIGNA systems are used across the world every day. Thanks to its outstanding features today PM ABACUS occupies a market-leading position in terms of technology.

PM ABACUS components



PM ABACUS

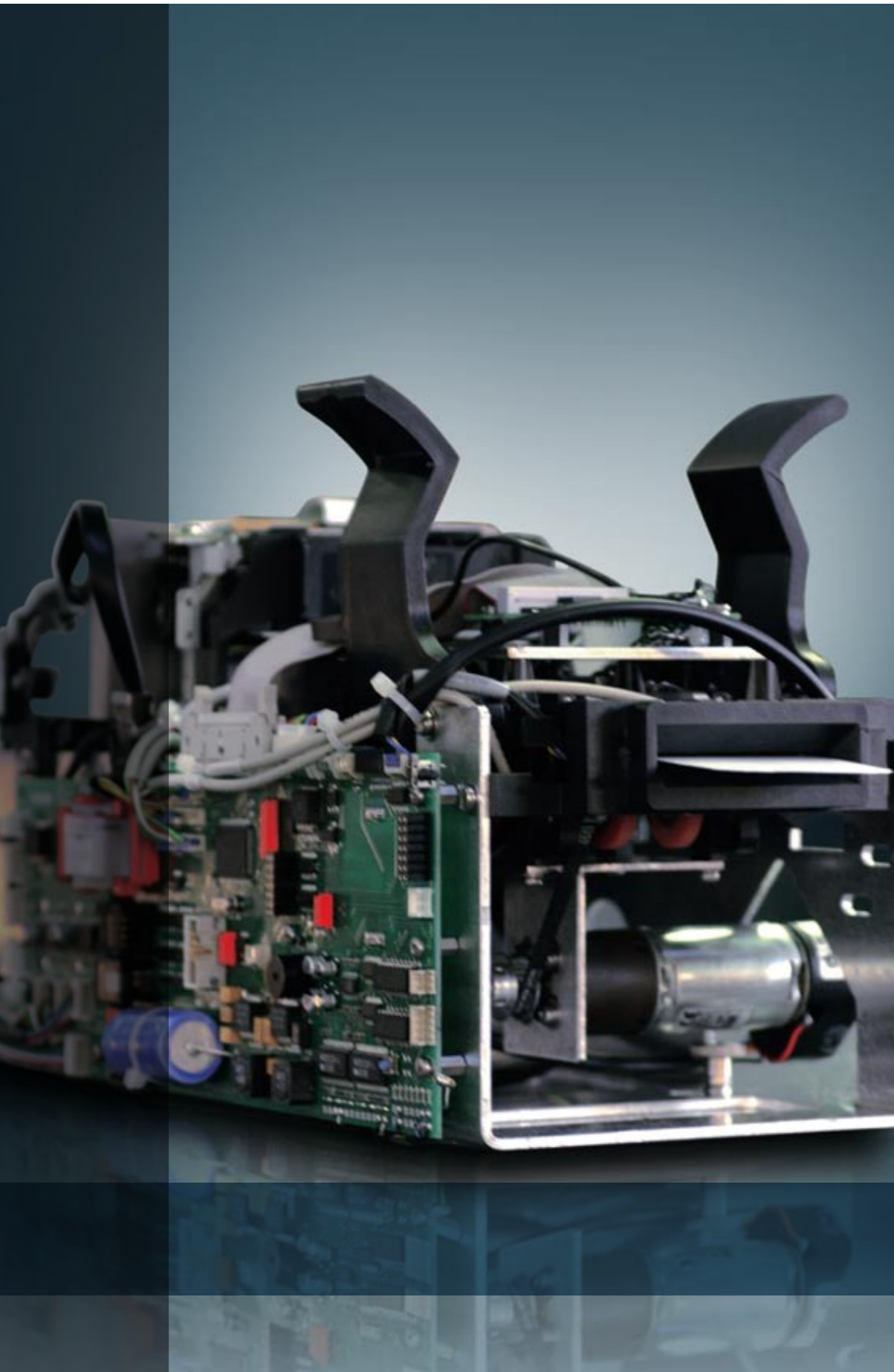
Hardware

Our standard is success.
The Hardware.

We are redefining the understanding of the parking technology field. For this reason, we have highly trained engineers who contribute their knowledge to the company. This guarantees our customers the best possible product. Each PM ABACUS system is carefully tailored to the customer's specific needs, making almost every system unique. All PM ABACUS components are optimally tailored to their function and explicitly designed to ensure that they interact smoothly. They are unconditionally reliable, impressive in their functional scope and set standards in terms of their 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 incorporate external alarm signals, information systems or databases into a PM ABACUS system without any difficulty. And using VPN (virtual private network) large-scale structures can be built extremely cost-effectively.

Heart and brain in one. The Multicon.

With the PM ABACUS the brain is at the heart. Multicon, the intelligent core module for processing tickets (optional magnetic strip or barcode technology) and debit or credit cards, is redefining reliability. Key features are its optional range of functions and its extraordinarily high operating speed, for example when issuing tickets. 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.



AUTOMATIC PAY STATION
APS 120 ECO



ENTRANCE/EXIT CONTROL TERMINAL
ENT 120/EXT 120



CAR PARK BARRIER
PB 120



WORKSTATION
WS 120



PM ABACUS

Hardware

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

A parking management system that is only geared to doing one thing will not be enough to meet customers' needs. Their demands and region-specific requirements are too diverse. For this reason, PM ABACUS supports all important handling and accounting variants.

When it comes to ticket technologies, PM ABACUS focuses on magnetic strip and barcode technology. Magnetic strip technology, which has been tried and tested over many years can be recoded in all devices and is therefore especially flexible. In the standard version, PM ABACUS supports the side strip variants that have become well-known thanks to their use on debit and credit cards. The middle strip variant offers one practical advantage: it enables tickets to be fed into the machine in any position and direction. This avoids irritation and enables a considerably higher throughput. The ability to process debit or credit cards at the entrance or exit provides even greater convenience for the customer by making both the ticket and a visit to the pay station superfluous.

Over and above this, PM ABACUS offers interfaces to OEM payment terminals for the „chip & pin“ standard (EMV guideline). Wherever sensitive data are processed, the question of security is an issue. For us, the safe processing of credit cards is a particularly important responsibility. Parking garage operators and their end customers, as well as the financial institutions responsible for the clearing of payments can with good conscience recommend their credit cards for payment transactions using PM ABACUS systems. This is substantiated by the PM ABACUS systems' PABP certification (Payment Application Best Practices). PABP is part of the PCI-DSS (Payment Card Industry Data Security Standard) auditing procedure and certifies all systems that safely process, save and forward credit card data in accordance with prescribed standards. Even though PCI-DSS certification is not yet compulsory, through the voluntary inspection of our current PM ABACUS system versions, we are able to offer our customers the greatest possible credit card processing security.

RFID - invisible technology, visible customer satisfaction

With the support of all current smart card technologies PM ABACUS is able to provide its customers with a further user-friendly option. For season parkers it constitutes the most convenient form of parking. Located inside the car's front windscreen, the barrier opens as soon as the car approaches a specific defined area on the car park barrier. Completely hands-free. For the car park user this means that he does not need to wind down the window, there is no waiting and when leaving no hectic search for a ticket. This is made possible by an invisible RFID tag (RFID = radio frequency identification) on the smart card. This invisible transmitter is recognised by the receiver at the entrance and causes the barrier to open.



A license plate that speaks for itself - LPR with DESIGNA

With the LPR license plate recognition system, cameras installed at the car park's entrance and exit identify an approaching customer automatically and with a high level of reliability using the vehicle license plate, which it checks for valid access authorisation using integrated recognition software. One of the highlights: In conjunction with license plate recognition, season parkers are able to enjoy VIP services. Once they are stored in the VIP list, customers are able to enter and leave without a ticket. This means that they no longer need to worry about obtaining a ticket or having enough small change, and no delays on arrival or departure. For every user additional individual details or conditions can be entered into the database, such as the times when they are allowed to park or agreed payment terms. Customers who are not entered on the list can also benefit from the fast exit ticketless departure option. Once they have been

recorded at the entrance - and after the ticket has been paid for - the system opens the barriers automatically at the exit.

Apart from receiving additional operating data covering car park occupancy, duration of stay and origin of the vehicles, by using LPR operators and their customers benefit above all from security and service. For example, black and white lists store details of undesirable vehicles and the owners of customer cards respectively, so that the system can react accordingly and automatically.

The ability to issue exactly reconstructed replacement tickets is also one of the benefits of LPR, as is the constant availability of inventory information regarding all of the vehicles in the car park. Functionality can be optionally extended through theft protection and fraud recognition as well as driver and overview cameras.



PM ABACUS

Networking

The Network that thinks along with you.

Networking is the defining subject in many sectors. We recognised the opportunities for our customers well in advance. For this reason, from the very beginning PM ABACUS was designed with distinct networking possibilities for major national and international projects. The PM ABACUS technology supports operators by providing a tailored solution for linking connected car parks with one another virtually (by VPN = Virtual Private Network) and tapping potential synergy and savings effects. Incoming data packages such as speech and video information, external alarms or statistics are bundled, monitored and evaluated in the national centres or international headquarters. A complete overview is therefore guaranteed at all times.

Any measures that need to be taken, be they global or local, can be initiated directly, and there is no difficulty at all in implementing enhanced centralised capabilities, the possibility of reacting at speed to ongoing situations and the complete takeover of monitoring and service functions in connected car parks, for example during the night. An intelligent language adaptation feature ensures that in this case the parker will be greeted in the correct language when he or she pushes the call button. The only difference that the parker will notice is that there is no difference.

5 m above mean sea level

Kiel
Longitude 10° 08' E
Latitude 54° 20' N

ASP PM ABACUS

Performance in figures.



ASP - a customer profile.

Data retrieval
600 KB
per second

56 car parks
8 CITIES

12 million
entrances and exits per year

154
database transactions
per second

392
registered
users

417 KB
of new data
per second



PM ABACUS

ASP

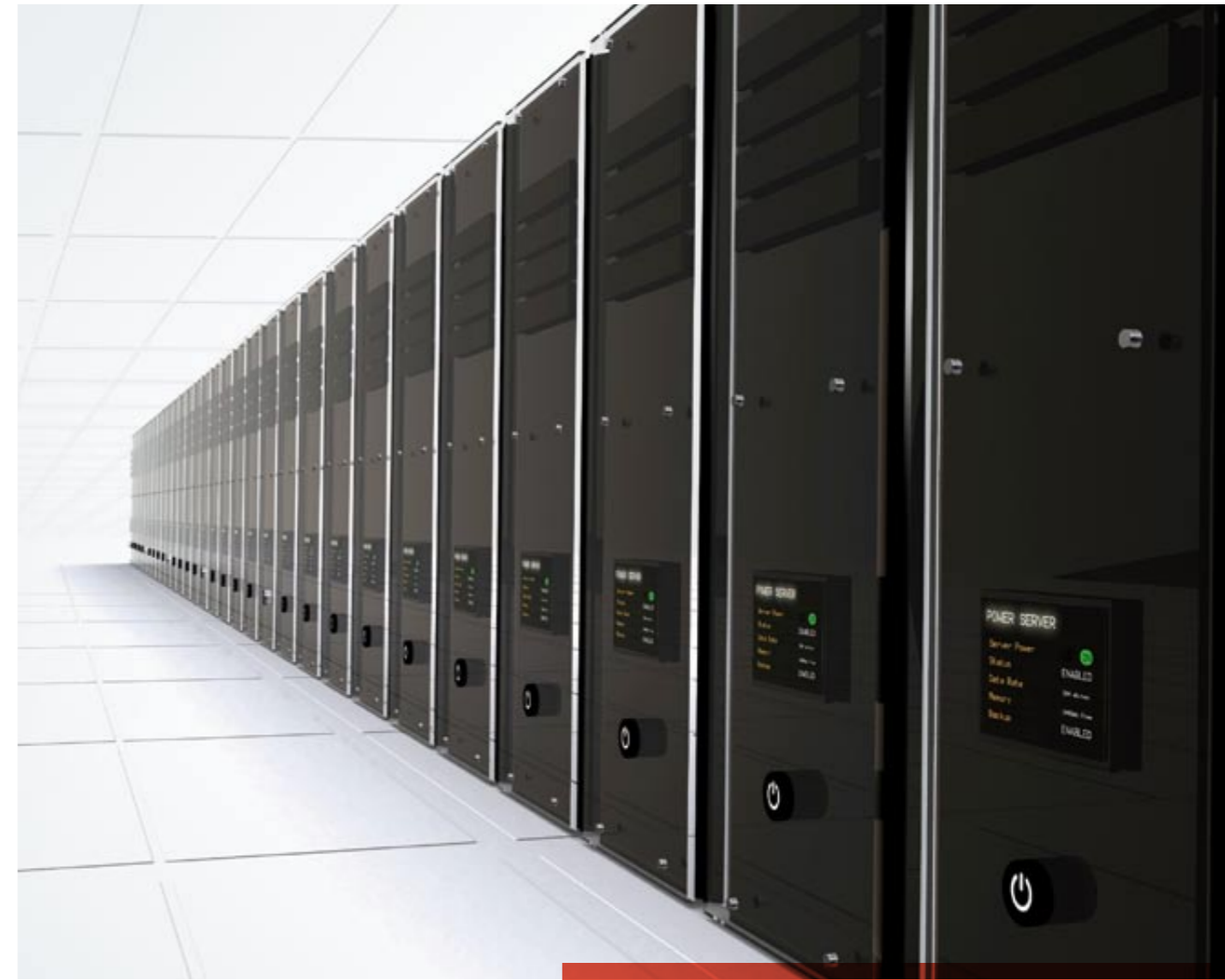
ASP - the new route to greater efficiency in the IT field.

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 structure. This requires a large outlay on technology and expertise and many hours of work. Instead of installing a separate server for each car park as is usually the case, with ASP (Application Service Providing), DESIGNA is the world's only manufacturer to offer its customers the opportunity to network their systems over the internet and operate them via a single server. 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 to operators of leasing sector specific applications over the internet, saving on expensive investment in IT structures and know-how and thus concentrating fully on their core competences. This new form of IT structure, will allow our customers to make cost savings of up to 30%.

ASP customers benefit at all times from the most up to date server technology and the DESIGNA experts' IT know-how. 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. ASP makes unlimited systems scalability possible for our customers, from individual car parks through to systems that are networked internationally. Furthermore, the customer has complete cost control over the entire system life cycle. The central server is run from a professional computing centre and thus fulfils all reliability and data security requirements. DESIGNA's recognised IT excellence in combination with the latest server technology means that the term system stability has assumed a new dimension.



Benefits of ASP

- **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 systems to the central server
- **Highest security standards**, through automated back-ups, 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 minimised



Optional software

- **WinOperate**
The central application for control, monitoring and process visualisation 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 park operator to configure the tariff 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

PM ABACUS

Software

The easy thing is the most difficult.
The Software.

We all know that software programmes can make a person's working life easier. Or more difficult. DESIGNA software makes sure that they become an essential tool. Consequently, an elementary building block in our software architecture is a clear user interface that is operated intuitively. No matter whether as a multi-faceted control tool or essential checking unit. The standard presentation of complex data and processes, in a visual nutshell, is one of the greatest strengths of the PM ABACUS software. Presentations that clarify rather than distort. And functions that help instead of hinder.

Be it for operation, reporting or device control: based on international standards such as Windows 7, technically mature applications are available that guarantee a reliable, efficient and interface-compatible operation of your system or parking network including over the long term - and depending on the task and usage environment, over the internet via VPN too. To do this, every transaction during a parking event is assigned to the respective ticket in the central SQL database, saved in uncompressed form over several months and made available to the reporting system. From here it is only a small step to your company database: data can be imported seamlessly into SAP or other business software. On the terminal side a Linux operating system that has been specifically optimised 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.

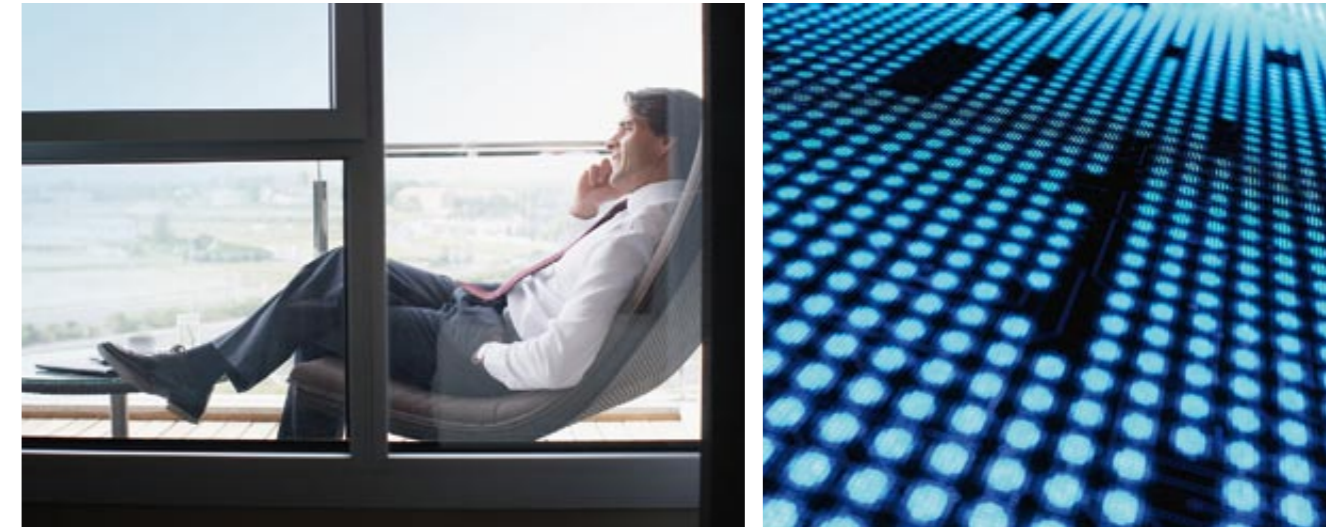
PM ABACUS

Software

MID - The difference between data and information.

The area of application of the Management Information Dashboard (MID) is easy to describe but challenging to implement. MID is a software application that, for its users, is akin to a lighthouse in a stormy sea of data. It utilises the outstanding networking technology and open interface design of PM ABACUS to optimum effect in order to combine the incoming data streams of all connected parking garages. These are then automatically channeled and converted into clear, colour-supported graphics or informative tables. Be it for the management accounting, finance or operational divisions, you will always be able to grasp the most important points.

MID is an indispensable tool for ensuring that you are quickly able to recognise the first signs of reduced performance and effectively counter them, particularly for larger, national or international parking chains with many car parks. MID is the ideal software tool for monitoring, safeguarding and increasing the efficiency of your car parks at any time.



Essential for important decisions - the MID processes all incoming data packets from the connected car parks and transforms them into graphic form so that the user can comprehend them more quickly.

PM ABACUS

Service Module

In order to guarantee progress, we place emphasis on an old-fashioned method that has a long tradition here - listening.

Our customers are constantly coming to us with new wishes and ideas. We listen to them carefully and do everything in our power to turn them into well-thought out solutions as quickly as possible.

The best example of this is the new, innovative Service Module. It is based on findings of intensive discussions with our customers and reflects considerably enhanced efficiency in terms of maintenance. For the first time it is now possible for operators to plan maintenance work efficiently and over the long-term and to recognise and resolve system faults in advance. If, for example, the reading head of a Multicon is becoming dirty or the stock of tickets is about to run out at an entrance, this information is automatically forwarded to a control station or direct to the responsible service technician by SMS. This ensures that the latter is able to optimally plan tasks and resources because his maintenance routes can be planned efficiently and he is able to determine what equipment will be needed. The result - shorter service times for the service technician, reduced spares stores, minimal downtime in the car park and relaxed car park users.





PM ABACUS

Service

Facilitator, adviser, partner -
the DESIGNA Service Department.

The best repair service is still the best when it is not needed. For this reason, quality management and duty of care are enshrined in everything we do. Should there nevertheless be an unexpected system impairment that you are unable to remedy yourself, we will assist you quickly, effectively and directly. Either via our telephone support desk - with qualified engineers who know what they are talking about - via remote maintenance or with one of our highly trained service technicians on site, 24 hours a day, 7 days a week.

The DESIGNA quality management system ensures that we not only adhere to our high quality of service at all times but constantly enhance it to benefit you. 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 familiarise our customers with DESIGNA's products and generate real knowledge. The strongest proof that DESIGNA pays more than just lip service to customer service. Instead it is something that our customers experience on a daily basis.

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