DOCUMENT MANAGEMENT

Holland House and UniSpool – a strong couple!

First of all, I would like to thank both our national and international customers for the trust you put in our solutions, our services and our company. We are grateful for your long-lasting loyalty as our esteemed customer and most important stakeholder. We hope to serve you all for a long time to come.

In 2018, Holland House achieved sound growth in sales revenues (+5%) and net results. The forecasts for 2019 are also very good as they stand now. Our customer base is spread across the globe, and our customers are increasingly using our UniSpool output and print management solutions for the UNIX/LINUX environment, as well as PrinTaurus for the MS environment. We also offer a specific module for the SAP world that handles all output and print work for the SAP ERP systems.

Our solutions are perfectly suited for the management of different types of printer hardware from different brands. This makes it possible to manage all proprietary printer software from the various printer companies across the world in an efficient manner, with less effort and less direct and indirect costs.

New developments

Every year, Holland House invests around 15% of its sales revenues into improving its software solution – and we intend to continue doing this over the coming years. The roadmap in this newsletter shows you some of these exciting new functions.

In the next pages, you will find more interesting news about our solutions, services and developments at the company.

I wish you all good health and lots of success.

Kind regards,

Wim J.N. Buitenhuis

CEO Solipsis group

GALERIA KAUFHOF

Headquartered in Cologne, GALERIA Kaufhof GmbH is one of Europe's leading department store chains. The company's innovative and successful approach offers a modern shopping concept that focuses on customer experience. GALERIA Kaufhof GmbH currently operates 103 department stores and 16 sports stores in Germany as well as 16 department stores in Belgium. The company has approximately 21,500 employees.

The assignment

GALERIA Kaufhof uses around 1,000 printers in six warehouses. As a multi-channel department store with an extensive online product range, the company produces large quantities of printouts every day. 'We issue around 100,000 to 130,000 print jobs per day at our warehouse locations,' explains Marcus Weiss, Head of Procurement and Logistics Systems at GALERIA Kaufhof. 'That number can be many times higher during peak seasons, such as Christmas.'

The company's six distribution centres use standard printers from various manufacturers. These are controlled by the warehouse management system or by various terminals.

Reliability with UNIX and the ability to be integrated into GALERIA Kaufhof's current warehouse management system were the two criteria underlying the company's decision.

An additional demand was to keep the company's own scripts, so that the approximately 5,000 different printing variants (templates) could be retained and a reliability of almost 100% could be guaranteed. Sporadic problems with the previous output management system meant that the spooling system had to be rebooted. This led to a parcel jam in the logistics centre, especially during the crucial Christmas business period. It took between 30 minutes and two hours to reboot the system. In addition, GALERIA Kaufhof was unable to perform targeted management of individual printers without paralysing the entire printing system.

The solution

Following a comprehensive comparison of suppliers, GALERIA Kaufhof chose the optimisation concept developed by AKI. After an extensive test operation according to the catalogue of requirements, the concept passed the final live test without any difficulties.

Using Holland House's UniSpool and AKI's PrinTaurus solution increased reliability to almost 100%. If the printing systems malfunction – something that would be contrary to expectations – the maximum downtime can be reduced to 10 minutes. In addition, AKI programmed an internal interface that enables users to control individual paper trays and therefore different paper formats or paper documents in the print templates. This has increased user comfort and offers users more flexibility when operating different printing systems.

AKI's PrinTaurus intuitive user interface was also introduced, ensuring simple, fast management and configuration of print servers and printers as well as print queues. This leads to significant time gains for staff.

Another core requirement was a full automatic backup of stencils that needs to happen each and every day. The company also wanted a competent, easily accessible support desk with problem-solving capabilities.

BINARY EXECUTABLE SECURITY - HARDENING UNISPOOL

Desperate times call for desperate measures. In a world where cyber threats emerge from every thinkable – and unthinkable – source, UniSpool has to protect itself against attacks from all angles. To make UniSpool more resilient against the ever-increasing threats, several hardening techniques are being implemented. The following section describes the counter measures that are being implemented in the LINUX versions of UniSpool.

1 Hardening techniques

RELRO is the acronym of Relocation Read-Only, meaning that the headers in the binaries, which need to be writable during startup of the application (to allow the dynamic linker to load and link shared libraries) are marked as read-only when the linker has finished loading libraries, but before the binary itself is launched. The downside of this Full RELRO, as it is implemented in UniSpool, is that lazy binding (only resolving those symbols the first time the symbol is used, making applications start a bit faster) is no longer possible. This means there is a slight performance penalty. However, our tests revealed that the increase of CPU time was less than 0.1% compared with the execution time of a binary without RELRO support.

A Canary is a certain value put on the stack (memory where function local variables are also stored) before a function is called and validated before that function is left again. Leaving a function means that the 'previous' address (i.e. the location in the application right before the function was called) is retrieved from this stack and jumped to. If the Canary value is not correct, the stack might have been overwritten or corrupted (for instance by writing more stuff in the local variable than allowed, a buffer overflow). The program is then immediately stopped, preventing further damage.

NX is the abbreviation for a non-execute or non-executable segment. It means that the application, when loaded in memory, does not allow any of its segments to be both writable and executable. The idea here is that writable memory should never be executed (as it can be manipulated) and vice versa.

PIE means Position Independent Executable. A No PIE application tells the loader which virtual address it should use (and keeps its memory layout quite static). Hence, attacks against this application know up-front how the virtual memory for this application is organised. Combined with in-kernel ASLR (Address Space Layout Randomization), PIE applications have a more diverse memory organisation, making attacks that rely on the memory structure more difficult.

FORTIFY_SOURCE: the compiler will try to intelligently read the code it is compiling or building. When it sees a C-library function call against a variable whose size it can deduce, such as fixed-size array, it will replace the call with a FORTIFY'ed function call, including passing on the maximum size for the variable. If this special function call notices that the variable is written beyond its boundaries, it forces the application to quit immediately. Note that not all function calls that can be fortified are fortified, as this depends on the intelligence of the compiler and the types of variables used in the function.

2 Checking for hardening option

There is a script out on the internet that can be used to determine which hardening options are applied on a binary. This script, checksec, is available via this link: https://github.com/slimm609/checksec.sh. For each binary it investigates, the script displays which hardening options are applied and can even display a list of fortified functions in the binary.

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3 Implementation in UniSpool

Since UniSpool uses the compilers supplied with the different releases of the various Linux distributions, not all hardening techniques described above are available in all versions of UniSpool. For example, the RedHat Enterprise Linux 6 version does not support Canaries, as the option was not available in the GCC 4.5 compiler. However, the RHEL 7 supports all options described above.

The hardening options have been available since the release of UniSpool version 6.23.21 for the RedHat Enterprise Linux 6 and 7 versions. Over the coming month, these options will also become available for Suse Linux Enterprise Server releases and RHEL 8.

4 Depreciation of static linked libraries

In addition to these hardening options, UniSpool no longer uses statically linked libraries for compression and encryption but uses the Operation System distribution supplied shared libraries instead. So if a critical problem is found in one of those libraries, and a patched version is installed on the system, UniSpool automatically benefits from the fix without the need to also install a patched version of UniSpool.

Q&A SHEET: WHY UNISPOOL?

Q&A UniSpool

System Managers and ICT and Financial Managers in particular are interested in the questions 'Why UniSpool?' and 'Why use an output and print management solution?', often saying 'Yes, we can print. So?'. This is a normal reaction, because printing is a commodity, but in practice it can have a huge influence on daily processes. UniSpool, our output and print management solution, adds to our customers' range of printing options and allows them to manage printing in a way that saves them money. That's why we compiled this Q&A list, so that you can quickly establish whether UniSpool could be a useful solution for your environment.

Q&A sheet UniSpool: please scan the QR-code or go to www.solipsisdocumentmanagement.com/downloads/qa.

WHITE PAPER: UNISPOOL FOR SAP

UniSpool for SAP

Alongside a comprehensive Q&A list of the FAQs about UniSpool, we have put together an interesting White Paper that describes the solution's major functions. This will make for very interesting reading for System Managers, System Architects and ICT Managers. We would be very happy to answer any additional questions about how UniSpool could improve your current situation.

White paper UniSpool for SAP: please scan the QR-code or go to www.solipsisdocumentmanagement.com/downloads/whitepaper.

DOCUMENT CREATION IN THE CLOUD

Although 'cloud' is no longer the coolest buzz-word in the world of IT, many companies have not yet discovered the real benefits it offers. One of its key characteristics is its ability to deliver software as a SaaS solution rather than as a license.

Where software developers used to be fully involved in software development and releasing new updates and versions, a true shift is now taking place. Currently, software vendors are rapidly transforming into SaaS providers and making software functionalities available through the Cloud as a SaaS solution instead of on-premise software implementation. This has done away with the need to purchase, with subscription types involving pay-per-use models coming onto the scene.

IntraData
member of the Solipsis group

IntraData, part of the Solipsis group, is also changing in response to this development by offering its IntraOffice software as a SaaS solution. IntraOffice offers solutions for Document Creation, Digital Signing and Online Archive.

IntraOffice Document Creation

Document creation is shifting more and more toward message composition, where users can quickly and easily create flawless correspondence using standard templates and text building blocks in an interactive way. This correspondence can then be distributed through all channels (paper or online). IntraData already offers its proven on-premise software that has now been upgraded and made available as a SaaS solution. Data exchange is secured via modern interfaces to other applications within the organisation, as well for all Document Management Systems (DMS) such as SharePoint, eDocs and OpenIMS.

A widely used standard for data exchange with local and regional authorities is the Standard Exchange Format message standard (StuF in Dutch). IntraOffice Document Creation meets this standard and is able to securely process data supplied outside the standard as well.

Templates and building blocks required for generating documents are easily created and managed on-site within the IntraOffice Document Creation environment. These templates and building blocks can then be uploaded to the Cloud environment and are ready for the document generation process. A separate Easytext function is available for easily making changes after generating a document or message (document enrichment) if necessary.

In addition to the major advantages, such as low investment costs at the start, availability and easy scalability, their SaaS solution offers a high-quality Document Creation tool that enables companies to create complex documents quickly, efficiently and free of error.

For more information, please contact us on +31 20 316 02 50.

PRINTAURUS • NEW FEATURE: PDF2LABEL

PrinTaurus PDF2Label allows you to print the output of PDF files to ZPL (Zebra Programming Language) capable labels. The PDF files are converted to the data stream format by PDF2Label.

If necessary, the label orientation can be adjusted. PDF2Label is able to process large volumes of data streams quickly.

The format of the PDF must correspond to the target output format of the printer, scaling is not possible. Using PrinTaurus PDF2Label eliminates the need to replace existing label printer fleet with new PDF-enabled devices. This enables you to master current digitization projects with existing hardware.

Interested in more information? Please send a mail at goossen.de.bruin@hollandhouse.com. We are happy to help you further with any questions you have got regarding PDF2Label.

UNISPOOL WEBINAR OCTOBER 9TH | NOVEMBER 20TH

We will be happy to show you what a professional print and output solution means with the power of UniSpool. Attend a webinar for free via solipsisdocumentmanagement.com/webinar.

SAP, HOLLAND HOUSE AND LAS VEGAS

In mid March, Holland House held a presentation and manned a stand at the major SAP conference in Las Vegas's Bellagio Hotel.

SAP is one of the world's largest ERP vendors, and Holland House has UniSpool: the world's best output and print management system with a dedicated SAP module. Starting in autumn 2018, there has been a UniSpool promotion aimed at SAP users based in the USA. This promotion consists of mailings, advertisements, dedicated space on the SAP website, a Q&A session, a webinar, a stand at the conference's exhibition space, and a personal presentation about a UniSpool customer case.

The conference featured a large number of speakers, the last of whom was a NASA astronaut who had made fourteen space flights. The 80 attending exhibitors made for a busy exhibition floor, but Holland House had booked a place close to the large SAP stand.

To name a few figures from the results, a total of 100,000 e-mails were sent and 2,200 visitors attended the conference. Holland House really stood out, offering some fantastic marketing material that introduced the UniSpool solution to a large number of first-rate potential customers.