

PlayBox Technology EU (PBT EU)

Incorporates everything a broadcaster needs

NAB 2017 Press Kit

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Driving innovation with EXECutor™ Broadcast Servers

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PBTEU AT NAB2017

PBTEU is not only the Bulgarian reseller and European vendor of PlayBox products but also develops and provides performance-leading solutions and customisable engineering services of their own that empower broadcast production professionals to operate efficiently at the forefront of ever-evolving digital environments.

PBTEU's primary focus is client-centered innovation, fast deployment, and dedicated support of revolutionary products, solutions and services, including – **PlayBox Technology's Neo suite, EXEcutor™ broadcast servers** and software applications, **SubtitleNext's** advanced captioning subtitling toolsets, and Profuz Digital's powerful business information management platform **LAPIS**, designed to centralise processes under one roof.

EXEcutor™ servers offer a highly robust and reliable backbone, can deliver a complete "TV Channel-in-a-Box", or configured to offer any combination of component services, using established PlayBox software to create scalable and flexible workflows.

Find out about PBT EU's own-manufactured **EXEcutor™ range of innovative broadcast servers** combined with the **EXEcutor™ Virtual Control Panel (EVCP)**.

The company never loses sight of meeting demands of single users, as well as the expectations of large organizations with more complex requirements

PBTEU collaborates with several technology partners across distribution and system integration projects. The company's headquartered in Sofia with a global outreach, including centres outside of Bulgaria where sales, support, manufacturing and R&D operations take place.

You can catch **PBTEU's Sales Director Alexander Stoyanov** on the PlayBox Technology Group booth N5311 at NAB this year to find out more or visit the website at www.pbteu.com

Contact marketing@pbteu.com to book a press meeting with Alexander or contact him direct at the show on +359 888 899397.

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PRODUCT HIGHLIGHTS

EXEcutor™ Broadcast Server range

PBT EU made an IBC2016 debut unleashing its extremely powerful **EXEcutor™** line of innovative broadcast servers.



- Designed with broadcasters, production and post-production facilities in mind, the EXEcutor™ Broadcast Server range was manufactured and rigorously tested by PBT EU to meet industry exacting standards.
- Power-efficient providing a highly customisable, robust and dependable backbone for all areas of broadcast and production installation, including television stations, production studios and post-production companies.
- By providing facilities for ingest and media management, titling and graphics, as well as playout and scheduling, EXEcutor™ Broadcast Servers can provide a **complete "TV channel-in-a-box"** solution, or be configured to provide any combination of component services using world-renowned PlayBox software, to enable very efficient, scalable and flexible production pipelines to be created. These incorporate traditional, streaming and hybrid workflow models, even the cloud and private cloud.
- Content can achieve output into a multitude of IP-streaming formats or via traditional SDI connections.
- Resolutions from SD to 4K are all supported, including the ability to stream multiple channels simultaneously.
- EXEcutor™ Broadcast Servers are also designed to interface seamlessly with many types of routers, and can be activated with LTC timecodes and GPI triggers.

EXEcutor™ Virtual Control Panel (EVCP)

PBT EU's own intuitive and virtual control panel to complement the server-line.



- The EVCP Control Panel is web-based
- Allows cross-platform and remote management of all functions of the master EXEcutor™ Broadcast Servers
- Includes remote media uploading, content, user and playout management, as well as systems monitoring.

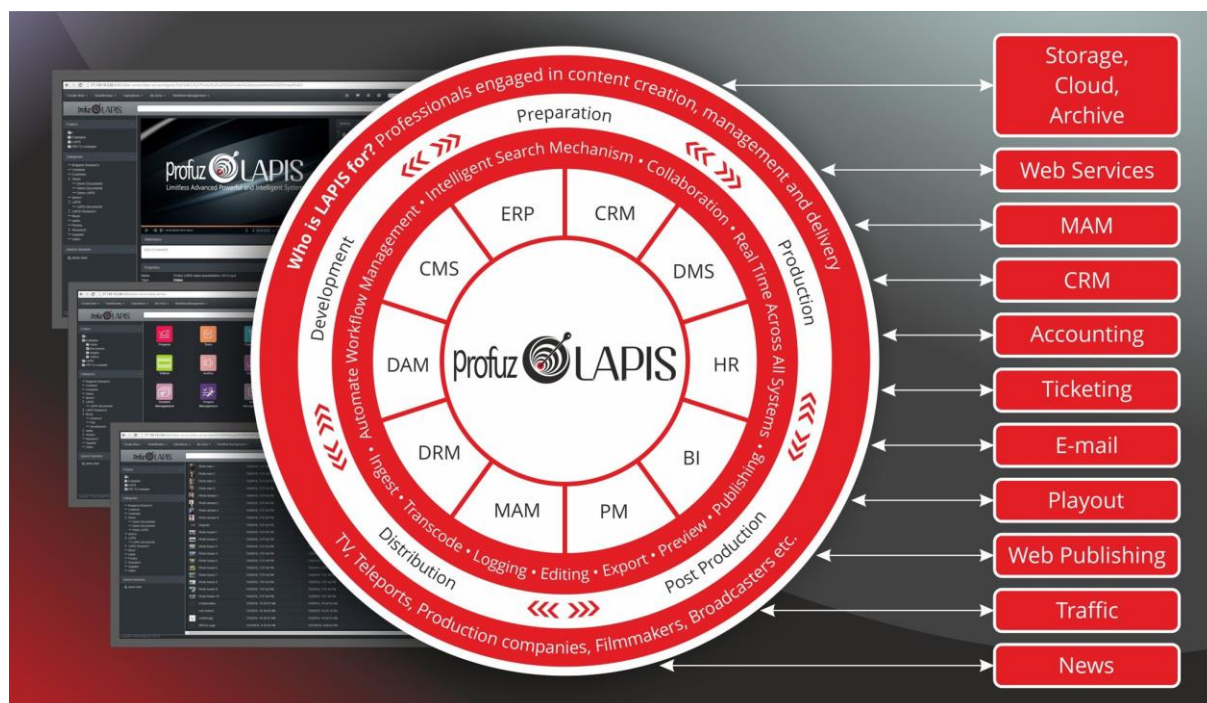
"We are immensely proud of PBT EU's own brand of Executor™ products to be shown at IBC2017 again this year. Our customer-centred focus of simplifying processes and providing large-scale solutions within a single product, is the motivation behind these major new developments."

Vladimir Stanic, PBT EU's General Manager

Profuz Digital's LAPIS (Limitless Advanced Powerful Intelligent System)

As global distributor, PBT EU introduces the revolutionary concepts behind LAPIS. LAPIS streamlines disparate data related tasks, such as communications, project management and media management, into a single highly customisable “dashboard”.

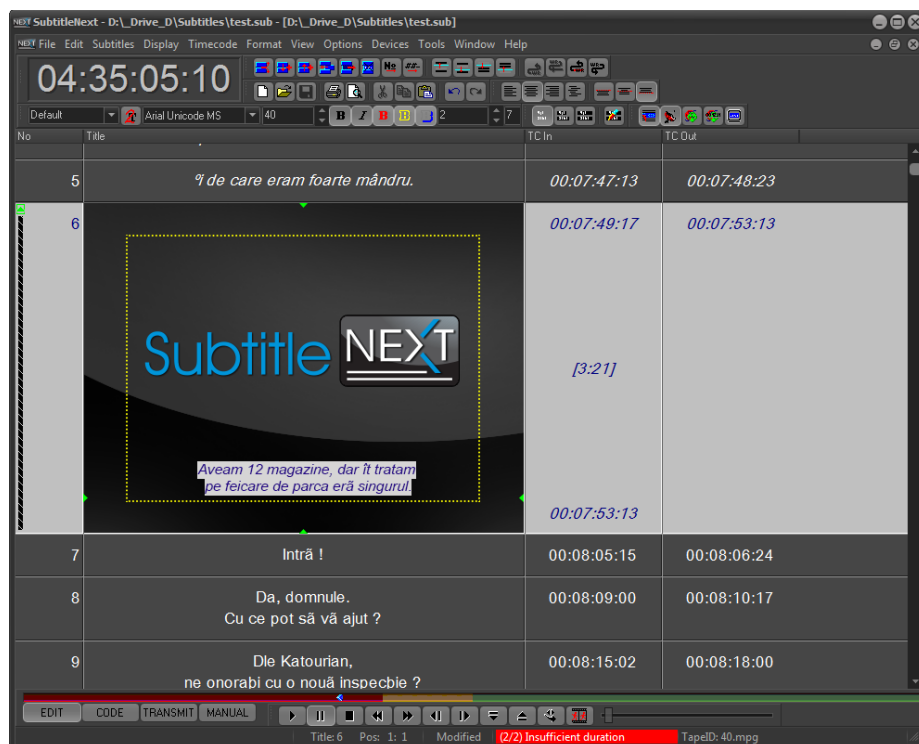
For broadcasters, production and post production companies, LAPIS seamlessly integrates media asset management functions with editing platforms and video sharing websites. It simplifies distributing and sharing large files and allows the creation of flexible and secure collaborative workflows.



- From this single system, users can efficiently search and manage resources that were previously spread across independent communications, workflow, storage and sharing platforms.
- All modern companies work with a multitude of systems to process their day-to-day data. They have email clients and video conferencing programs for communications, spreadsheets and calendars for project management, media sharing and cloud solutions for distribution and collaboration, as well as databases for customer relationship management and storage systems for visual and audio media. **LAPIS brings the control of all these systems under one roof, ensuring massively increased operational efficiency, much simpler corporate learning curves and removal of manual processes that are prone to human error.**

SubtitleNext

PBT EU also presents software application suite - **SubtitleNext** - supporting all content and live video



- SubtitleNext is an advanced software platform for creation, management, burning, airing and conversion of subtitles, captions and other text services, for multimedia industries, including production, post-production, radio and TV, cinema, opera and theatre, commercials, entertainment, and any other genre where timed texts are required.
- SubtitleNext has the capability to dramatically improve speed and efficiency, but also simplifies the processes throughout the entire work cycle.
- Suitable for both newcomers and industry professionals in highly demanding positions. SubtitleNext is a software system with a 25-year legacy behind it, in combination with the very latest trends, and expectations in the field. It also supports most of the historic and existing subtitling and media protocols, standards and formats, and is flexible enough to easily be extended with new options.
- The product line also includes several software licensing levels and options, ranging from entry level **SubtitleNext Novice**, to **SubtitleNext Expert**

ABOUT PBTEU

PBTEU develops and provides performance-leading solutions and customizable engineering system integration to empower broadcast, production and post-production professionals to operate efficiently at the forefront of an ever-evolving digital environment.

PBTEU's primary focus is client-centered consistent innovation, fast deployment, and dedicated support of its products, solutions and services, which include - PlayBox Technology Neo product suite, **EXEcutor™ broadcast servers** and software applications, advanced captioning and subtitling software platform **SubtitleNext**, as well as Profuz Digital's powerful business process and information management system **LAPIS** designed to efficiently centralize processes and data under one roof.

PBTEU 's **EXEcutor™ broadcast servers**, already adopted by major organizations, offers a highly robust and reliable backbone, able to deliver a complete **"TV Channel-in-a-Box"**, or be configured to offer any combination of component services, using world-renowned PlayBox software capable of delivering efficient, scalable, stable and flexible production pipelines.

PBTEU collaborates with worldwide renowned technology partners across distribution and system integration projects. The company's headquartered in Sofia (Bulgaria) with a global outreach, including centres outside of the country where sales, support, manufacturing and R&D operations take place. www.pbteu.com



"In today's fast paced and ever changing landscape, we are eager to demonstrate to broadcasters, content owners, teleport satellite network companies, TV channels and OTT providers coming to IBC this year, how our unique and scalable solutions provide everything a broadcaster needs all in one complete powerful turnkey system."

Vladimir Stanic, PBT EU's General Manager

TECHNOLOGY PARTNERS

List of PBT EU technology partners

About ISID	About Profuz LAPIS	About CSE	About DekTec	About SPI and FunBox4K/UH
Leading software manufacturer, ISID specialises in media solutions and develops popular media asset management (MAM) software, 'Videoma'. Covering the needs of professionals within the broadcast industry as well as education, corporations and even government security, the software allows users to organise, manage, process and edit all of its imported video, audio or image content via closed files, or captured through IP streams or video servers. The software additionally incorporates leading innovative features and modules such as a speech-to-text recognition engine, biometric analysis, audio fingerprinting, and practically any metadata retrieval system the user may need. Visit them at www.isid.com	An information management-hub, which enables firms to streamline and simplify processes to improve efficiency and have better control over its information by removing the need to use multiple software products. Visit them at http://profuzdigital.com/	Specialists in cross-media advertising and TV programming. Visit them at http://www.cse.fr/	A manufacturer of PC add-on cards, USB devices, IP converters and software for the professional digital-television market. Visit them at http://www.dektec.com	FunBox 4K/UHD will be made available as fully encrypted PAY TV Channel on Eutelsat this year. SPI labs spend extensive hours assuring quality can sustain 4K standards. Find out more at http://spiintl.com/data/files/kcfinderUploadDir/files/presentations/2016/FUNBOX_4K_2016.pdf

TESTIMONIALS

“By listening to our clients and their requirements, we introduced them to the PBT EU’s EXEcutor™ broadcasting product line. Although other playout systems are very capable, they didn’t always match the business case requirements of our customers – PBT EU’s did though!

STN received great support from PBT EU and its distributors in terms of delivery times and ongoing support...We have a great relationship with the PBT EU team, from the manufacturing to the distribution...We always take the opportunity to discuss forward projects and to see what the best solution might be for the customers. It’s great to work with such a flexible and collaborative team.”

Jurij Blazin, Technical Director, STN’s teleport, Slovenia



STN Facility Antenna, Slovenia, Image Courtesy STN

“We chose to distribute LAPIS because it fills a vital void in broadcasting in terms of efficiency, affordability and adaptability to the business needs of a wide spectrum of organisations. What makes LAPIS so powerful is its transferability and endless possibilities for customisation which significantly reduces costs and overheads. It also complements our latest EXEcutor™ server line by providing an additional new generation management layer. Profuz Digital’s team is extremely capable and ambitious, and we are confident that they can continue to deliver flawless support and enhancements. Therefore, all of PBT EU’s existing and new customers alike, can count on the reliable integration of LAPIS along with the rest of our products.”

Vladimir Stanic, General Manager of PBT EU about LAPIS

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www.radiancepr.com

RECENT NEWS RELEASES AND MEDIA COVERAGE



MCR, Image Courtesy STN

Visit www.pbteu.com for further updates
Follow the latest on Twitter @PBT_EU

Press Release – April 2017, Sofia, Bulgaria

SubtitleNext upgrade enables support for all content and live video

PBT EU keeps pace of the growing “Evolution in Subtitling” by further accelerating SubtitleNext’s performance and accuracy to empower users

PBT EU has extended its advanced captioning software SubtitleNext with additional features and applications that provide subtitle editors and content owners with cost-effective benefits by delivering uncompromising speed and precision. SubtitleNext has been further refined to cater for the relentless upsurge of online content such as live news streaming, YouTube videos and other OTT services to benefit and support professionals.

PBT EU's exciting new developments in SubtitleNext have arisen in response to the ongoing rapid growth of content across multiple platforms and the industry crying out for prompt advances in technology that can keep up. These latest upgrade additions ensures that the constant demand for extremely swift titling services is met, at affordable rates.

SubtitleNext is revolutionary and dramatically improves pace and productivity, simplifying processes throughout the entire work cycle. The application is suitable for newcomers and industry professionals in highly demanding positions. With a 25-year legacy, it supports historic and existing subtitling and media protocols, standards, and formats, and is flexible enough to easily be extended with new options. The product line also includes several software licensing levels and options, ranging from entry level SubtitleNext Novice, right up to SubtitleNext Expert.

Key enhancements in SubtitleNext offer users full support for virtually all known forms of content and live video. This includes direct access of online video content which is both unprotected and DRM-controlled, for existing and private schemes, apart from downloaded or preprocessed material. Live analogue, SDI and various forms of streamed video have also been upgraded to enable lightning-fast performance with accuracy.

Other new features include multiple Region definitions (display regions), which can be used for various purposes with corresponding subtitle assignments, such as subtitle positioning and groupings, which provides for simultaneous multiregional displays. SubtitleNext's latest version also embraces SMPTE - TT standards and burns to new video formats such as h264 and h265, supports 3D subtitles and giant formats and resolutions from 4K, 8K, 16K and beyond. It can air various graphics, as well as text based outputs and standards, while also supporting uncompressed graphics, and much more.

Kamen Ferdinandov, CTO of PBT EU states, “The latest improvements and add-ons allows multiple workflow combinations for direct integration with different collaboration and media asset management systems, private and public media stores, various channel origination and retransmission solutions such as traditional broadcast, IP, WEB TV and so forth. This way, we can offer users a hybrid model which combines the benefits of both desktop and web solutions.”

The growing evolution in subtitling, - from the move to HD; the ongoing need for improved subtitle presentation; the introduction of file-based production workflows, to the inescapable convergence with web and online data, - effectively propelled PBT EU to develop SubtitleNext in the first place to provide an adaptable solution to meet varying customer requirements in a fluctuating and often disruptive environment.

Subtitles are effectively highly profitable timed text, metadata, transcripts and metatools, and PBT EU regards the enormous value and flexibility that high-quality toolsets deliver. SubtitleNext can also be used to play a vital role, for example, in improving speech recognition and literacy, aiding communication, providing language learning support and live remote captioning, help the deaf and hard of hearing – the advantages are limitless and benefit many other industries too. Accurate timed text used online can also help power searches, target advertising, increase search traffic, page views, search rank and engagement and therefore increase awareness and attract new business.

The PBT EU development team never stands still. PBT EU continues to shape and develop its growing and maturing SubtitleNext product line into an increasingly versatile solution designed to adapt to any organisation. Real-time subtitling of live TV shows and outdoor events is now a reality in SubtitleNext. With the progression of specifically designed voice recognition packages, SubtitleNext is making the future of live subtitling a truly captivating experience. A trial of SubtitleNext can be downloaded at www.pbteu.com

ENDS

Opinion Piece – March 2017 Copyright PBTEU

“Turnkey” systems vs DIY software and hardware combos – which is best?

Over the last few years, a growing number of systems used in broadcast and post production have migrated from being custom manufactured hardware, to software solutions running on relatively standard computer platforms. This has opened the door for broadcasters to construct their own hardware solutions on which to run that software, but what are the Pros and Cons compared to buying a complete “turnkey” system from a manufacturer?

We asked a number of experienced industry professionals for their views, who have backgrounds in engineering, management and systems integration. Martin Parsons is a veteran digital engineer formerly of The Mill and The Moving Picture Company, now CEO of Image Eyes Ltd. Adam Scott is General Manager of Spectrum Films in Australia, having previously worked with Foxtel and ABC in New York. Jurij Blazin is the Technical director of STN, (Satellite Telecommunications Network), a company that broadcasts hundreds of channels for its customer TV stations. Vladimir Stanic is the General Manager of manufacturer and global systems integration company PBT EU (PlayBox Technology Europe Ltd).

The Pros and Cons

One of the strongest points in favour of the DIY (“Do it yourself”) route is the ability to “cherry pick” exactly the right hardware for a particular application. Most solutions comprise of some form of “off the shelf” computer, running an operating system with the chosen software application, supported by additions such as video input/output boards, graphics accelerators and networking facilities. Media storage is then added as required.

Martin Parsons sees the advantages of being able to create a custom solution; *“A turnkey solution might not be the “best of breed” solution that you get from a non-turnkey or open solution where you can choose each of the components to be the best available. You can choose each component to be exactly suitable for your needs and not be over-designed and over-priced accordingly.”*

Cost advantages with DIY builds are clearly an attraction, as each component can be purchased at the best price and operational costs can also be lower if the customer is able to take advantage of more flexible options, as Adam Scott points out; *“The ability to turn on/off applications, work on a subscription or floating license model, allows your business to be more elastic with processing/expansion and makes it very attractive.”*

However, as PBT EU’s Vladimir Stanic suggests, some of the perceived cost advantages of making a DIY platform aren’t quite as they seem. *“It takes a great deal of time to research each of the components, check for compatibility, compare with others and so forth, and it is important to factor in these costs when making a comparison.”*

Compatibility between components is a very big issue for the DIY builder to deal with. Individual components might simply not work together, or worse, generate seemingly random and sporadic faults and crashes that are notoriously hard to track down. Martin Parsons recognises the risk; *“A problem with an open solution is that it might not be interoperable, in other words, all the component products might not work well with each other as they come from different manufacturers. The individual components in a turnkey product from a single manufacturer should be totally interoperable as they will have been designed to be so.”* It is a concern to the DIY builder that if they do happen across compatibility issues - which manufacturer do they then go to for support? Each component is likely to be correctly functioning on its own – or at least, so its manufacturer will say and the blame-shifting will begin resulting in delays!

It is certainly true to say that a key advantage of a turnkey system is that it will have been subjected to a great deal of testing in real-world applications. These should have trapped and corrected any issues of component compatibility. PBT EU make a range of broadcast servers called “EXEcuter”. On the face of it, these can be perceived as computers that run server software, but Vladimir Stanic highlights the intense level of stringent research and testing that goes into the manufacturing process as a turnkey solution which means they are so much more than just a computer that can be easily self-built. *“A broadcast server is more than a mere melting pot of hardware components with a bit of software thrown in, there is so much more involved. There is an immense amount of R&D work, integration adoption, countless hours of testing and compliance verification operations that takes place. A great number of different manufacturers and technological providers are also involved in the process, which result in a complete product designed to be the very heart of a TV station.”*

Vladimir further points out, *“PBT EU’s EXEcuter production line is a result of stringent detailed research and testing for deployment including warranties with clear RMA procedures, reaction times with assurance that replacements required are always trackable. Included in the complete solution, is our dedicated 24-hour technical support accessibility for the final product covering both the software and hardware components – in summary, everything is taken care of by one company, in one place, making it so much easier for the customer.”*

Ongoing support and training are also issues for the DIY builder to consider. A turnkey manufacturer will know exactly what the customer is aiming to achieve with their purchase, whereas the manufacturers of individual computer hardware are unlikely to have any specialist knowledge of the demands of the broadcast industry or have the broader picture in context. The commercial success of a new installation is not just related to its technical reliability. It is also related to how that system is encompassed into the general workflow of the customer’s company. Success in this area will have a lot to do with aftersales support and user training, both of which lend the advantage to the turnkey solution.

Satellite Telecommunications Network (STN) is a heavy user of broadcast servers, offering playout facilities for hundreds of global television broadcasters. As such, they are very well placed to weigh up the advantages of home-grown technology versus the offerings of many turnkey manufacturers. Technical Director Jurij Blazin explains, *“STN’s teleport in Slovenia currently handles several hundred TV channels being received from and transmitted to, all parts of the globe. A significant number of customers have a need to use our playout services, where they can upload their content, add graphical detail and set a playlist schedule for transmission. We’ve seen significant growth for playout facilities in recent years. Finding the right equipment to meet their needs at a cost that works within their business case requirements is always a challenge.”*

STN chose PBT EU’s EXEcuter range of broadcast servers, after considering all available options. Jurij explains, *“From a technical point of view, the PBT EU EXEcuter broadcast equipment is easy to install and operate for our clients and we already have quite a number co-located in our facility. Also, PBT EU provides our customers with a training course which serves to enable the customers to come to terms with the operation of the equipment in a very short space of time. This enables our customers to work much quicker with our service offering. For example, one of our customers uses more than 25 units for their SD and HD playout systems with virtually no interaction required from our operational team on a day to day basis. The system is fully operated remotely by the client with STN purely providing hands and eyes for support.”*

Clearly, training and support were a major deciding factor for STN. But perhaps the overriding factor when deciding whether to go the DIY or turnkey route is about reliability, or more specifically, how “mission critical” is the application under consideration? Perhaps for non-critical applications, the DIY route, with its inherent bespoke tailoring and limited costs could be the way to go. But for applications upon which an enterprise relies, such as the broadcast servers employed by STN, the turnkey route is likely to be the preferred one.

If nothing else, the old maxim *"No one got fired for buying IBM"* could apply. No matter how good the intentions are of an engineer who comes up with a creative hardware/software solution in-house to save costs, the issue arises that if that system becomes the reason why a TV station goes off-air, the same engineer is in for a very difficult meeting with the boss!

PBT EU's Vladimir Stanic concludes, *"The difference in price between the original turnkey solution versus non-turnkey is insignificant compared to the risk of building your own broadcasting system equipment, and facing huge expensive risks when problems arise. My advice is that customers should honestly evaluate the risk of loss due to a system failure and factor that into the debate about choosing DIY compared to the more stable turnkey route."*

ENDS

Press Release – March 2017 Tahiti

Tahiti Nui TV (TNTV) integrates PlayBox Technology EU ‘Channel-in-a-Box’ systems with CTS Enterprise software to advance broadcast management efficiency

Tahiti Nui Television (TNTV) upgrades traffic system to boost programming capabilities

TNTV is a vibrant French Polynesian television channel that was launched in June 2000 delivering dynamic local news, sport, culture, politics, entertainment, world news and general interest programmes across the whole stretch of Polynesian islands in French and Tahitian languages.

When TNTV took the initiative to upgrade its entire broadcast management system in 2016, the television channel chose CSE, French Software Company specialising in advertising and TV scheduling, to implement with the help of partner PlayBox Technology Europe (PBTEU) an advanced broadcast solution in league with leading international industry standards. The installation was based on two powerful PlayBox Technology EU ‘Channel-in-a-Box’ platforms based on PlayBox Technology products, and on CSE’s CTS Enterprise software to drive the TV station forward, setting it apart from regional competitors.

PlayBox Technology EU’s ‘Channel-in-a-Box’ systems equip broadcasters with solutions that deliver both software-defined hardware turnkey systems, such as facilities for ingest, media management, titling, graphics, playout and scheduling, as well as a complete solution. These can perform equally outstanding results in SDI, IP, hybrid and virtualised environments. CSE’s CTS Enterprise software effectively manages linear and non-linear scheduling operating in a multi-channel environment. The system offers real-time overview of the broadcast scheduling process and its features include programme library, rights management, long-term planner, mass modification of scheduled content, promotion management, as well as quota reporting. It is also designed to interface with aspects of the broadcasting business such as ingest, automation, and airtime sales systems.

PBTEU’s TAILORED SOLUTION REVOLUTIONISES HOW A TV STATION WORKS

PBTEU created a tailored solution based on PlayBox Technology EU ‘Channel-in-a-Box’ systems to revolutionise how TNTV works providing full parallel functionality along with automated content and playlist transfer, working in 1:1 back-up mode in SD format. Every playlist was prepared and checked using a dedicated preparation station separate from the main playout platform which was considered as an advanced way of operating in the region. Furthermore, TNTV benefitted from a multi playout manager on top of the workflow throughput for remote management. This enabled content to be prepared for delivery through the pipeline via four ingest stations which are also in SD formats. Indexation and media descriptions are then completed in DataBox for which TNTV holds a full set of core and editing licenses. It is at this point that the integration with CSE’s CTS Enterprise software comes in to complete the workflow picture.

PBTEU AND CSE FACE THE INTERFACE - CSE’s Sales and Marketing Manager Hugo Berthelot talks through the process, “TNTV wanted our traffic system to be interfaced with their broadcast tools. PBTEU played an important role by providing us with essential trial versions so that we could test that the interface was working properly. They also connected us with other professionals throughout the process including specialised engineers who could help respond on GUI applications. PBTEU was involved with the project from the start and always interested at every phase, meticulously following up exchanges which was critical to achieving success and ensuring every detail was nailed down.”

CSE integrated their CTS Enterprise software with PlayBox Technology EU ‘Channel-in-a-Box’ systems at TNTV. A connector was developed to automatically import technical information (Title, ID, TCs, and video file localisation) from DataBox to CTS database. Interfaces were also created between CTS Enterprise and PlayBox Technology’s software products ListBox and AirBox so that playlists can be automatically exported to the playout and as-run logs imported after broadcast. CTS Enterprise also communicates with CTS

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Publicity, CSE's airtime sales software setup one year before. Through the integration with PlayBox Technology EU 'Channel-in-a-Box' systems, the sales-house automatically recovers advertising as-run logs to establish campaign reports.

The entire implementation process took just over three months to complete, and during this period, one of the CSE's associates spent three weeks onsite in Tahiti to train users and accompany them during the software change.

Following this extensive upgrade, TNTV has secured the management of all its programmes, commercials, promotions, and secondary events, and guaranteed compliance with programme quota and distribution rights – with the peace of mind that all these processes are all safely administered automatically with a business software that is totally dedicated to TNTV's dynamic broadcast design management.

PBTEU's Sales Director and Managing Partner Alexander Stoyanov remarks, "TNTV is one of PBTEU's most important and well-respected customers in the region and we enjoy a solid relationship with them. Their team fully understands the value of maintaining their installation and they are a loyal partner. TNTV also delivers a professional and valuable service to their audience and we are very proud to support them on an ongoing basis as they continue to expand and evolve. It has been a pleasure working with CSE on this project with their in-depth knowledge of programming markets, and we look forward to many more projects ahead."

Associate and TV Project Director of CSE, Marc-Olivier Hechenblaickner notes, "When TNTV approached us to upgrade their broadcast management system to our CTS Enterprise software and to integrate it in the playout platform, we first thought about how we would streamline the workflow by developing an interface with Databox and another one with ListBox and AirBox. To do this, we immediately sent our questions to PBTEU whose answers allowed us to progress faster. Then, we remotely tested and validated the integration before coming to Tahiti so that I could focus on user training and assistance after my arrival to ensure that CSE had successfully completed the project for the deadline." Adding further, "This project fully embraced the simplified creation of programme schedules and playlists with positive results. Our partnership with PBTEU is important to us, and our combined services and efforts brings added value to our customers."

THE CUSTOMER HAS THE LAST WORD

Poerava DUVAL, Scheduling Manager at TNTV – "The installation of CTS Enterprise has improved the communication within the services of the channel. The commercial department has now a real-time overview of the playlist and can validate the proper insertion of the advertising campaigns. In the broadcast department, operators had to enter programmes manually in the playout based on documents extracted from our previous broadcast management system. Today, CTS Enterprise exports automatically a formatted computer file into PlayBox Technology EU 'Channel-in-a-Box' systems. For operators, the time saving is huge!

She continues, "I am very satisfied of the final result. The team is reactive despite the distance and is truly listening to us. They took the time to understand our organization and were able to adapt the solution to our specificities."

CSE partnered with PBTEU at their IBC stand in 2016 demonstrating the CTS software range including Enterprise, Publicity and CRM providing essential tools for efficient advertising and broadcast management. CSE has been serving major sales-houses and broadcasters for over 25 years in France and abroad through its innovative IT business solutions. Some of CSE's clients include TF1, Lagardère, beIN SPORTS.

Press Release

PBT EU partners with Additecom at BITAM

22 – 24 November 2016 - Stand 67 – BITAM

Pabellón de Cristal, Recinto Ferial de la Casa de Campo de Madrid, Spain

PlayBox Technology EU (PBT EU) is delighted to be a part of BITAM this week in Madrid and are based on the Additecom stand 67. PBT EU's team are at hand to advise visitors to the show about the advantages their own-brand EXEcutor™ turnkey broadcasting servers can bring to broadcasters, production companies and post production facilities. Other products that PBT EU provide include advanced software platform SubtitleNext and business management tool Profuz Digital's LAPIS.

"Partnering with our long-term regional partner Additecom at BITAM again this year affords us with the ideal platform to connect with our dynamic industry in Spain. It's the perfect time of year for us to have the opportunity to inform customers what is on offer to help solve the challenges they face in the broadcast sphere and prepare them for what's ahead. We appreciate their support and our strong partnership - Additecom has been an important PBTEU partner in the region for some time." Alexander Stoyanov affirms.

Additecom was established back in 1993 and is a manufacturer and developer of teleprompter systems and automated continuity for news studios adopted across the EMEA region. Over the years, the company has evolved and progressed along with all the significant emerging technological changes, incorporating innovative services and products to meet market demand. To find out more visit <http://en.additecom.com/>

BITAM is an annual industry event that brings broadcast, IT, audio and media sectors together in one space. Visit the BITAM website at <http://www.bitamshow.com/iindex.asp> to find out more about the event.

Contact Alexander Stoyanov from PBT EU on +359888899397 to meet at the show or find him on Stand 67.

Press Release - 20 October 2016, Bulgaria

The EXEcutor™ Broadcast Server line – What's New?

Investing in future-proof solutions helps meet challenges head-on

Despite the many challenges, including those caused by market contenders such as OTT video and free-to-air TV offerings, Europe's pay-tv business continues to grow. This should inspire broadcasters to think about future-ready solutions now, to help prepare them for what lies ahead. In addition, the analogue terrestrial-to-digital switch has added further weight to the burden that many broadcasters and TV stations now face. Furthermore, 4K content distribution and end-to-end IP workflows are enduring 'trends' that present broadcast engineers with significant technological concerns with no 'quick fix' solution.

Last month at IBC, PlayBox Technology Europe (PBT EU) exhibited as an autonomous entity within the PlayBox Technology group, lending a complete resolution to the market with its own-manufactured EXEcutor™ Broadcast Server range tailored to revolutionise how broadcasters, production and post-production facilities can work.

The Philosophy of the EXEcutor™ line is to specifically equip broadcasters with invaluable solutions that deliver both futureproof and software-defined hardware turnkey systems, such as facilities for ingest, media management, titling, graphics, playout and scheduling, including a complete "TV channel-in-a-box". These can perform equally outstanding results in SDI, IP, hybrid and virtualised environments.

In line with celebrating the successful consolidation with PlayBox Technology software, the comprehensive EXEcutor™ range now includes a vast array of new features and options, complemented with an extendable 2-year hardware warranty combined with a special RMA service package for premium customers.

Some of the many benefits include:

- H.265/HEVC IP streaming support now gives users unmatched viewing experiences they've been waiting for.
- The use of closed captions in the prevalent MXF and MCC v.2 file format is a real plus.
- Content insertion may also be the most prolific monetisation concept in today's linear broadcast market.
- SCTE-104 and SCTE-35 data transport support now unlocks new opportunities to further enhance budgets.

Alexander Stoyanov, Sales Director at PBT EU emphasises the importance of keeping up to date with current trends as the market experiences rapid transformation, "We have always been a client-oriented company. With a broad global footprint across a diverse range of countries, we have a remarkable and expanding customer base that entrusts our services. As a result, our clients' ongoing achievements fuels our success at the same time which makes for the solid relationships we value. In return we provide our customers with the tools to stay on top." He adds, "The bottom line is that broadcasters need to be prepared and not leave essential updates and upgrades too late and risk being left behind by their competitors. PBT EU delivers reliable and efficient solutions to remedy that risk."

General Manager of PBT EU Vladimir Stanic asserts, “Our own-made EXEcutor™ - the original turnkey server solutions based on PlayBox Technology software, brings enormous value and key advantages for various kinds of projects, workflows and budgets.” He shares further, “For quite some time we have faced the impending demand for significant technology shifts such as MS Windows 10 migration, MOS and NDI protocols support to connect with countless external devices and advanced playlist imports from third party vendors. Today these have now become a reality. With this in mind, we feel it is essential for broadcasters to stay ahead of the game by making wise, future-proof investments that they can use to their advantage now, and in the years to come.”

Exclusive interview with Profuz Digital's Developer of LAPIS

Limitless – Advanced - Powerful - Intelligent - System

Following the successful launch of brand new content management software system LAPIS for the first time at IBC2016, a look behind the scenes reveals an innovative development team. Responsible for its creation to empower a new generation for business and creative professionals, its capabilities are applicable across all industries and organisations of every size and shape. Profuz Digital optimises development resources with an agile approach that is worth taking note of.

CTO and Co-Founder of Toronto-based Profuz Digital, Kamen Ferdinandov along with his team, developed the system called by the acronym - LAPIS. It brings something different to the table to what is out there currently. This interview serves to explore how it delivers a refreshing approach to revitalise markets across a broad range of industries irrespective of company size. The motivation behind the need for a unique system in an already oversaturated marketplace is unveiled.

Q: Define LAPIS and what it does?

A: LAPIS literally was designed to empower organisations and boost business efficiency. It is a business process and information management system and streamlines distinct data related tasks, such as communications, project management and media management, into a single highly customisable “dashboard”. From this single system, the user can efficiently search and manage resources that were previously spread across independent communications, workflow, storage and sharing platforms. All modern companies work with a multitude of systems to process their day-to-day data. They have email clients and video conferencing programs for communications, spreadsheets and calendars for project management, media sharing and cloud solutions for distribution and collaboration, as well as databases for customer relationship management and storage systems for visual and audio media. LAPIS controls all these systems under one roof, ensuring massively increased operational efficiency, much simpler corporate learning curves and removal of manual processes that are prone to human error.

For broadcasters, production and post production companies, LAPIS seamlessly integrates media asset management functions with editing platforms and video sharing websites. It simplifies distributing and sharing large files and allows the creation of flexible and secure collaborative workflows.

Q: What made you develop LAPIS in the first place?

A: It became apparent that there was a gap in the market for a useful and effective data management tool that could be easily tailored to the end-user's needs. This included making it highly adaptable so that it fits the user's business, and not the other way around. It was also important that it could be interacted with in whichever way the user wanted to, such as via web and mobile access. We saw this opportunity and went for it.

Q: What is different about the Profuz Digital LAPIS approach?

A: We offer something completely different to what is out there right now. We are not restricted to one market area; the product applies to every single company and industry. There literally are no limitations.

To provide an example, typically there are two approaches to providing solutions to customers, and they are either project or custom-based or industry-specific or 'out of the box'. The custom/project based line is an extremely expensive option and can be slow moving. Also, historically from our experience, providers

of such solutions are trying to replicate or reuse software that is made for specific situations which could prove to be a nightmare for users in the long run. Their knowledge and know-how is specific as they are focused on a limited number of customers/projects.

Next, regarding the industry-specific 'out-of-the-box' option, this can lack flexibility and needs additional integration work which means that the company needs to adapt to the software and not the other way around.

Looking at both approaches, we effectively address both of and our aim is to further develop and refine them. Of course, every solution has its drawbacks, even ours. However, by building certain partnerships, we are fully equipped to deal with those. For example, if an organisation has a requirement for the 'best of breed CRM', we would be confident and flexible enough to be to connect to whichever tool the client needs and provide other functionalities much faster and at an affordable rate, at the same time

Q: What are the benefits that LAPIS brings?

A: Unlike other tech products that tie up users with single vendor dependencies, we prefer to give our clients the freedom to benefit from a variety of dynamic industry-specific technologies, while retaining the distinct advantages that using a single system brings, such as providing a single place to generate searches and reports even across multiple external systems.

Q: What is your relationship with PBT EU?

A: We chose to partner with PBT EU and distribute LAPIS through their well-connected channels. It also fills a vital void in broadcasting from their customers' point of view in terms of efficiency, affordability and adaptability to the business needs of a wide spectrum of organisations. What makes LAPIS so powerful is its transferability and endless possibilities for customisation which significantly reduces costs and overheads. It also complements PBT EU's latest EXEcutor™ server line by providing an additional new generation management layer. As global distributor, PBT EU introduced at IBC for the very first time, the revolutionary concepts behind LAPIS to the market which was very exciting for us to showcase our technology at a n industry platform of that size. There seemed to be an interest in the system but we still have a lot of work to do in terms of getting people to know it exists and try it out.

Q: Tell us a bit about Profuz Digital, the company and its values?

A: Profuz Digital is a software development company with our HQ based in in Toronto and an R&D centre in Sofia, Bulgaria. We develop software solutions for both small and large enterprises in a variety of industries that include media and broadcasting, outsourcing, education, health and many more.

Our team is completely obsessed and passionate about empowering businesses. We stay well-informed with trends and emerging tech, but also remain true to our vision. We pride ourselves on understanding the global mindset and remain open to various viewpoints across the spectrum, and our mission is to continuously look for a simpler and easier way for you to get things done.

Q: Can you expand on cloud services?

A: LAPIS can provide a complete cloud solution or it can be configured to work in a "hybrid" way. It would be entirely up to our customer and what their needs dictate in terms of the architecture. This adds

an additional layer of security and creates a single environment to control the management, usage, structure, storage of various data and processes.

So it is entirely up to you – if you want, you can have access to all your business-critical files from any web device whether you're at your desk, working from home or at a coffee shop halfway around the world. Businesses are more mobile today than ever before.

Some huge benefits of cloud asset management with LAPIS include easy implementation, quick adoption, great integration, an intuitive user experience and of course, security. Fast implementation frees up IT resources and allows you to get up and running right away. We also want our customers to enjoy a user-friendly interface that anyone in their organisation can understand, and LAPIS is easy to use.

Q: What else is in the pipeline and how do we find out more about LAPIS?

We have some exciting projects in the pipeline currently that involve broadcasting, VOD, subtitling with DRM and end user consumer accounting. If you would like to find out more the Profuz Digital team would be delighted to show you a demo, have a look at our website. <http://profuzdigital.com/>

ENDS

Media Information

About Profuz Digital

Profuz Digital is a software development company with Headquarters in Toronto, Canada and an R&D Center in Sofia, Bulgaria. Completely dedicated to developing software solutions that empower to the people, the company services any business from small to large enterprises across various industries, including media and broadcasting, outsourcing, education, health and many more.

The team is experienced in data and media processing, business and process automation, device control, and systems integration. For over 20 years they have adopted a seamless approach to successfully implement and introduce affordable, simple user-friendly products. Visit them at <http://profuzdigital.com/>

Press Release - 7 September 2016, Bulgaria

PBT EU technology partner CSE showcases exciting software line-up at IBC 2016

TNTV integrating CSE solutions with PBT EU to help improve broadcasting efficiency

Stand5. A02, IBC Show, The RAI, Amsterdam, 9 – 13 September 2016

PlayBox Technology EU (PBT EU) is pleased to confirm that its technology partner **CSE** will also be present at stand 5. A02 this year. CSE will demonstrate its software line-up of products “CTS Antenne”, “CTS Publicité” and “CTS CRM”, providing essential tools for efficient advertising and broadcast management. Specialists in cross-media advertising and TV programming, CSE is an established firm based in France with many of their solutions involved in improving workflows across advertising and scheduling within broadcasting companies, as well as the management of all types of purchasing, production, live and self-promotional programmes.

CSE’s customer TNTV is currently relying on the company’s expertise to upgrade their playout platforms. Still currently in progress, the project embraces the simplified creation of programme schedules and playlists. It also involves the integration of publicity sold by the sales-house in the overall emission playlist, as well as the direct transfer of playlists and the importing of playout as “Run Logs” in CTS Antenne, including the auto-recovery of advertising “As-Run” to CTS Publicité. These and many more examples, are some of the many services being delivered by CSE in line with PBT EU products in the TNTV project.

CEO of CSE, Jean-Marc Leoni confirms, “After acquiring our advertising booking system CTS Publicité in 2015, TNTV decided to replace their old system for broadcast management with the CTS Antenne software and to integrate it in the playout platform based on PlayBox products and solutions.” He adds further, “We are delighted to be in partnership with PBT EU and to have the opportunity to showcase our products at IBC alongside them this year which brings added value to customers.”

Vladimir Stanic, General Manager at PBT EU states, “It is great having a company like CSE join us on the booth as they have ideas and products that are relevant to the visitor demographic at a show such as IBC providing an ideal platform for them. Their TNTV project was the perfect opportunity to complete the integration between both of their systems. CSE has developed a user friendly GUI, which allows both technical and editorial information to flow between CTS Publicité and CTS Antenne from one side and DataBox, ListBox and AirBox on the other. A case study will be created as soon as the project has been completed to further demonstrate their capabilities and how customers can benefit.”

Press Release – 2 September 2016, Sofia, Bulgaria

PBT EU and Profuz Digital join forces to launch “LAPIS” at IBC2016

LAPIS empowers organisations and boosts business efficiency

PlayBox Technology EU (PBT EU) is delighted to announce its strategic partnership with Toronto-based software company Profuz Digital Inc., developer of the LAPIS business process and information management system. LAPIS streamlines disparate data related tasks, such as communications, project management and media management, into a single highly customisable “dashboard”. From this single system, the user can efficiently search and manage resources that were previously spread across independent communications, workflow, storage and sharing platforms. As global distributor, PBT EU will introduce at IBC the revolutionary concepts behind LAPIS.

All modern companies work with a multitude of systems to process their day-to-day data. They have email clients and video conferencing programs for communications, spreadsheets and calendars for project management, media sharing and cloud solutions for distribution and collaboration, as well as databases for customer relationship management and storage systems for visual and audio media. LAPIS brings the control of all these systems under one roof, ensuring massively increased operational efficiency, much simpler corporate learning curves and removal of manual processes that are prone to human error.

For broadcasters, production and post production companies, LAPIS seamlessly integrates media asset management functions with editing platforms and video sharing websites. It simplifies distributing and sharing large files and allows the creation of flexible and secure collaborative workflows.

CTO and Co-Founder of Profuz Digital, Kamen Ferdinandov expands on the pioneering development behind the innovation, “It became apparent that there was a gap in the market for a really useful and effective business management tool that could be easily tailored to the end-user’s needs. This included making it highly adaptable so that it fits the user’s business not the other way around, also that it could be interacted with in whichever way the user wanted to, such as via web and mobile access.”

Profuz Digital’s CEO and Co-Founder Ivanka Vassileva says, “Unlike other tech products that tie up users with single vendor dependencies, we prefer to give our clients the freedom to benefit from a variety of dynamic industry-specific technologies, while retaining the distinct advantages that using a single system brings, such as providing a single place to generate searches and reports even across multiple external systems.”

General Manager of PBT EU Vladimir Stanic states, “We chose to distribute LAPIS because it fills a vital void in broadcasting in terms of efficiency, affordability and adaptability to the business needs of a wide spectrum of organisations. What makes LAPIS so powerful is its transferability and endless possibilities for customisation which significantly reduces costs and overheads. It also complements our latest EXEcutor™ server line by providing an additional new generation management layer. Profuz Digital’s team is extremely capable and ambitious, and we are confident that they can continue to deliver flawless support and enhancements. Therefore, all of PBT EU’s existing and new customers alike, can count on the reliable integration of LAPIS along with the rest of our products.”

Press Release – 2 August 2016, Sofia, Bulgaria

PlayBox Technology EU presents “SubtitleNext” at IBC2016

PBT EU provides innovative line-up incorporating everything a broadcaster needs

IBC Stand A02, Hall 5, IBC Show, The RAI, Amsterdam, 9 – 13 September 2016

PlayBox Technology EU (PBT EU) is delighted to present its software application suite - **SubtitleNext** - for the first time at IBC. SubtitleNext is an advanced software platform for creation, management, burning, airing and conversion of subtitles, captions and other text services, for multimedia industries, including production, post-production, radio and TV, cinema, opera and theatre, commercials, entertainment, and any other genre where timed texts would be a requirement.

SubtitleNext has the capability to dramatically improve speed and efficiency, but also simplifies the processes throughout the entire work cycle. The software is suitable for both newcomers and industry professionals in highly demanding positions. SubtitleNext is a software system with a 25-year legacy behind it, in combination with the very latest trends, and expectations in the field. It also supports most of the historic and existing subtitling and media protocols, standards and formats, and is flexible enough to easily be extended with new options. The product line also includes several software licensing levels and options, ranging from entry level **SubtitleNext Novice**, right up to **SubtitleNext Expert**.

PBT EU also welcomes new technology partner and co-exhibitor ISID to IBC this year. A leading software manufacturer, ISID specialises in media solutions and develops popular media asset management (MAM) software ‘**Videoma**’. Covering the needs of professionals within broadcasting as well as education, corporations and even government security, the software allows users to organise, manage, process and edit all of their imported video, audio or image content via closed files, or captured through IP streams or video servers. The software is also able to incorporate leading innovative features and modules such as a speech-to-text recognition engine, biometric analysis, audio fingerprinting, and practically any metadata retrieval system the customer may need.

In addition, PBT EU introduces strategic partner, Toronto-based software company Profuz Digital Inc. to IBC for the first time presenting LAPIS (Limitless Advanced Powerful and Intelligent System). LAPIS is the software hub which integrates information coming from MAMs, storage, news feeds, advertising agencies, accounting and CRM, and provides a central way of searching, collaborating, reporting, managing and tracking of all the information sources in a single environment. It also manages the outgoing information and the simultaneous publishing to multiple web destinations. It tirelessly handles and schedules the materials needed for the broadcasting servers and manages the internal/external tasks, projects and processes.

Appealing to production houses, teleports and broadcasters, PBT EU chose to distribute LAPIS as it filled a void in broadcasting, in terms of efficiency, affordability and adaptability to the business needs of a wide spectrum of organisations. It helps to connect the dots within and outside an organisation with its user-friendly multi-purpose process designed to cleverly encapsulate, in a central hub, or substitute a myriad of other complex systems, such as MAMs, news, ERP, CRM, traffic, and acts as an efficient workflow management tool, enabling users to design, build and run flexible business procedures and operations. **At the same time, LAPIS is in synergy with PBT EU’s latest EXEcutor™ server line** and enhances the offering by adding a new generation management layer on top. What makes LAPIS so powerful is its transferability and endless possibilities for customisation, helping to significantly reduce costs and overheads.

Press Release – 11 July 2016, Sofia, Bulgaria

PlayBox Technology EU unleashes the EXEcutor™ product line at IBC

Driving innovation with EXEcutor™ Broadcast Servers

IBC Stand A02, Hall 5, IBC Show, The RAI, Amsterdam, 9 – 13 September 2016

Leading manufacturer and global systems integration specialist, PlayBox Technology EU (PBT EU) makes an

IBC2016 debut unleashing its extremely powerful **EXEcutor™** line of innovative broadcast servers at stand 5. A02. Designed with broadcasters, production and post-production facilities in mind, the EXEcutor™ Broadcast Server range was manufactured and rigorously tested by PBT EU to meet industry exacting standards.

The EXEcutor™ Broadcast Servers are power-efficient providing a highly customisable, robust and dependable backbone for all areas of broadcast and production installation, including television stations, production studios and post-production companies. By providing facilities for ingest and media management, titling and graphics, as well as playout and scheduling, the EXEcutor™ Broadcast Servers can provide a complete "TV channel-in-a-box" solution, or be configured to provide any combination of component services using world-renowned PlayBox software, to enable very efficient, scalable and flexible production pipelines to be created. These incorporate traditional, streaming and hybrid workflow models, even the cloud and private cloud. Content can achieve output into a multitude of IP-streaming formats or via traditional SDI connections. Resolutions from SD to 4K are all supported, including the ability to stream multiple channels simultaneously. The EXEcutor™ Broadcast Servers are also designed to interface seamlessly with many types of routers, and can be activated with LTC timecodes and GPI triggers.

Also brand-new for IBC, is the EXEcutor™ Virtual Control Panel (EVCP), PBT EU's own intuitive and virtual control panel to complement the server-line. The EVCP Control Panel is web-based allowing cross-platform and remote management of all functions of the master EXEcutor™ Broadcast Servers, including remote media uploading, content, user and playout management, as well as systems monitoring.

In addition, PBT EU is also worldwide distributor of Profuz Digital's L.A.P.I.S. (Limitless Advanced Powerful Intelligent System), and will be introducing at IBC its revolutionary concept of streamlining project management processing. It is effectively a complete company information management-hub which enables organisations to improve efficiency and have better control over their information by removing the need to use multiple software products for various data and content-related tasks. Profuz LAPIS brings together workflow management, multi-user document collaboration, content asset management, customer relation management and internal / external communications into a single, connected hub. It can connect to popular web services and allows users to search and interact with all connected applications from a central control panel.

PBT EU's General Manager Vladimir Stanic says, "We are immensely proud to showcase PBT EU's own brand of Executor™ products at IBC2016. Our customer-centred focus of simplifying processes and providing large-scale solutions within a single product, is the motivation behind these major new developments. Having a visible presence on our own stand this year at IBC, gives us the exposure to enhance our expertise and these unique service capabilities to a much wider audience than before, bringing a fresh approach to our valued customers and partners."

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Sales Director at PBT EU Alexander Stoyanov confirms, "Visitors to our stand will also be able to learn how the new EXEcutor™ Broadcast Servers and individual component PBT EU-certified software can translate into viable solutions that deliver value and quality-service for their specific needs. We never lose sight of meeting demands of single users, as well as the expectations of large organisations with more complex requirements."

Other PBT EU technology partners present on PBT EU's booth include cross-media advertising and TV programming experts CSE, SPI Labs' FunBox UHDTV Channel and DekTec, manufacturer of PC add-on cards, USB devices, IP converters and software for the professional digital television market.

Come by and meet the dedicated PBT EU team at stand 5. A02.

Contact sales@pbteu.com to book a demo and register for the show at www.ibc.org using code **21658**.

The team at PBT EU looks forward to welcoming you to their stand!

Exclusive interview with award-winning teleport STN in Slovenia

STN's teleport based in Slovenia relies on PlayBox Technology EU's (PBT EU) bespoke turnkey solutions to meet highly complex challenges.

Find out what STN's Technical Director Jurij Blazin has to say about what they do, including his views on cloud computing, PBT EU's services and EXEcutor™ broadcast server solutions, and how it all fits into their vision to meet client demand.

Q: Outline some of the challenges your company faces that PBT EU solves.

A: *"STN's teleport in Slovenia currently handles several hundred TV channels being received from and transmitted to, all parts of the globe via DTH platforms in Europe, Middle East, Africa and North America and strategic partners for Asia and Latin America. Many of our channels are simply turned around from satellite, fibre or public IP connection. However, a significant number of customers have a need to use our playout services, where they can upload their content, add graphical detail and set a playlist schedule for transmission. We've seen significant growth for playout facilities in recent years and STN offers several levels of service dependent on the customers' requirement. Finding the right equipment to meet their needs at a cost that works within their business case requirements is always a challenge. PBT EU helps us to do just that, matching capability with affordability and offering the best opportunity for our customers to grow their business."*

Q: Expand briefly on how PBT EU's turnkey services bring advantages to your business.

A: *"From a technical point of view, the PBT EU EXEcutor™ broadcast server equipment is easy to install and operate for our clients and we already have quite a number co-located in our facility. Also, PBT EU provides our customers with a training course which serves to enable them to come to terms with the operation of the equipment in a very short time. This enables users to work much quicker with our service offering. For example, one of our clients uses more than 25 units for their SD and HD playout systems with virtually no interaction required from our operational team on a day to day basis. The system is fully operated remotely by the client with STN purely providing hands and eyes for support."*

Q: What made you choose PBT EU in the first place?

A: *"Many of STN's clients are based around the Middle East and PBT EU is exceptionally well known amongst that community. By listening to our clients and their requirements we introduced them to the PBT EU's EXEcutor™ broadcasting product line. Although other playout systems are very capable, they didn't always match the business case requirements of our customers – PBT EU did though! STN received great support from PBT EU and its distributors in terms of delivery times and ongoing support."*

Q: From your viewpoint what makes PBT EU stand out from other companies?

A: *"Like all teleports around the world, STN is a 24/7 operation. It's absolutely vital to us, our customers (and their customers) that we have a full-time support when it is needed. STN delivers services globally which means that the business day changes from client to client. Not only is it important to establish the service easily and swiftly, but ongoing technical support must be available at all times. PBT EU provides this for us."*

Q: What are your thoughts on cloud services and also the pros and cons of using turnkey services compared to software/hardware-only solutions?

A: *"There is no doubt that cloud services are coming. STN are only too aware of the 'soft' nature of services. But I've heard it said that the cloud is simply a computer being used somewhere else. In many ways, that's what we bring through the physical equipment at our teleport, to our customers – it appears just like a cloud service to them. Of course, from this question's point of view you're interested in the actual processing of the information in the cloud and of course STN is already prepared to manage such approaches. We do foresee a future where physical equipment is still required but any short term expansion requirements might be covered by the cloud as an interim service. To STN, turnkey will mean both physical and cloud offerings for the future."*

Q: Any other thoughts?

A: *"We have a great relationship with the PBT EU team, from the manufacturing to the distribution. We always take the opportunity to discuss forward projects and to see what the best solution might be for the customers. It's great to work with such a flexible and collaborative team."*

Since its inception in 2004, STN, the Satellite Telecommunications Network, has significantly grown to become a leader amongst teleports on a global scale. STN is a provider of solutions for broadcast over satellite and celebrated for its quality of services that include multiple solutions, satellites and platforms and is a trusted partner of choice to hundreds of channels to date. Its specialty is tailoring services to ideally suit individual customer's requirements, making it a single state-of-the-art emporium. STN's range of expertise is diverse, enabling the company to facilitate single channel start-ups as well as transmit multiple top-tier direct-to-home satellite platforms. STN has earned a reputation that is punctuated by reliability, trustworthiness, high quality and an unrivalled turnaround time. STN is able to maximise the broadcasting possibilities by utilising the most effective technology available on the market. It is STN's cutting-edge technical infrastructure that affords complete peace of mind, as reliable, uninterrupted high-quality services are ensured.

August 2016

Come by and meet the dedicated PBT EU team at stand 5. A02. View the EXEcutor™ Broadcast Servers in action across a variety of agile workflows and broadcast environments.

Contact sales@pbteu.com to book a demo and register for the show at www.ibc.org using code 21658.

The team at PBT EU looks forward to welcoming you to their stand!

ENDS

Digital Studio Magazine Interview with PBT EU's Sales Director Alexander Stoyanov

Published 30 August 2016 - <http://www.digitalstudioindia.com/time-and-pirates-wait-for-none/>

- **What are some major threats to content security in broadcast television?**

In brief, it's about "losing or abusing". If you lose your content there is absolutely nothing to show viewers, and you not only lose viewing figures, but also income. On the other hand, you don't want somebody else taking advantage of your precious assets, for which you paid good money. By losing I am not just referring to the physical aspects only. More often, channels get lost in tons of content, and simply can't manage it all at the right time. So they either need to re-generate it or re-purchase it. This comes at a price. That's why no matter what the size of the channel, I always recommend to my customers that they obtain a decent MAM or BPM. It certainly pays off.

- **What is propelling TV broadcasters to take content security seriously in recent times? Please give instances where security lapses cost broadcasters (in India or overseas) in terms of revenues, perception and viewership.**

What pushes banks to protect their money, or trust funds their investments? For broadcasters, content is their asset to monetize and bring it to the media market. If you go to the market with an empty basket, in the end you end up only being able to sell the actual basket. And this happens with a lot of channels that have lost or undervalued their content. They simply stop generating income and either close or go up for sale. We see this especially in regions, where in the past there were a large number of channels, artificially sustained for some reason, but offering no real value for the viewer.

- **Do you think certain domains in broadcast television, like live sports, are more susceptible to content security threats or piracy?**

The more attractive the content is, the more threats it will face. Actually there are a lot of additional aspects to be considered. Nowadays, concerning piracy, for example, we see how timing plays a key role as the most important aspect, as it is not just about pirates getting their hands on the latest movie or football match, but getting hold of it before anyone else does. Time is a dominant criterion in digital content – right from the time of content creation to distribution, through to the time of expiry...and time is money after all.

- **As broadcasters deliver on multi-platform content, like social media, OTT and radio, how can they ensure that they have the highest levels of content security integrated within the core of their business operations and across various delivery platforms?**

101% security is a myth. We often joke that even planet earth can be viewed as a SPOF (Single Point Of Failure). Yet the best tool to keep your content safe with is one's very own mindset. It all starts there. Mentality, along with the attitude within the corporate/workflow culture are vital elements. Security must not mean restriction above all. Once it becomes a drawback and causes inefficiency, people start to dislike it intensely. Once they feel negatively about it, they become negligent in respecting it. This results in insecurity. No matter what top level systems you implement, the human factor can always let you down. So it is essential to bear this in mind.

- **Please outline some latest innovations in content security in the broadcasting domain.**

Watermarking, encrypting, cloud storage – they're all out there. Although there are nevertheless a lot of broadcasters for which having a digital copy of its taped version is quite an invention.

- **What were some traditional content protection security models adopted by TV broadcasters? What were its advantages and limitations?**

From the good old locker room with tapes to the highly reliable storage / LTO clusters - we've seen them all. Frankly, the main advantages of those models gave TV people a sense of security. Having a second copy may sound archaic, but it certainly saves the day. Also, limitations can still kick-in. "Where did I store that second copy...or when?"

- **Increasingly, broadcasters are opting for various cloud services as it ensures lower investments in equipment, lower operating expenses and smaller teams to deliver their channels. Can they opt for the same when it comes to content security as well? Explain why.**

Content security can be compared to putting the right lock on your vault. With cloud technologies becoming more and more mainstream now, you can put the lock on somebody's else vault as well, hoping that the owner doesn't have a spare key. In terms of OPEX, the price of the lock is always expected to be lower than the value of the vault.

- **What are the limitations of using cloud services when it comes to content security?**

Probably connectivity in the first place. I was involved in a considerable number of projects where infrastructure was an issue. Not only in terms of non-developed countries, but as well as in exaggerated security networks, which were pure isolators. Again, this is followed by the psychological perception that your content is "somewhere, far, beyond" and is vulnerable to bad intentions. To what extent can you trust your cloud provider? Is it the same provider of your main competitor as well?

- **Who are the leading cloud providers when it comes to content security?**

In theory, private clouds sound more secure. Practice is another thing though and sometimes; the fact is that it is not always the most avant-garde or intensely marketed providers that prove to be the best.

- **Does using cloud content security service give broadcasters a competitive edge?**

It depends on the method of working as well as the business model of the channel. Yet always keep in mind that content security is a chain with a lot of linked elements. Using cloud content security service for one element, does not necessarily mean you have secured it end-to-end.

- **Despite the presence of so many solutions and technologies, piracy and theft of valuable media content assets is still on the rise. Is there any fool proof way for broadcasters, production houses and content creators to stay a step ahead of content pirates? If yes, then please list some steps they can ensure to safeguard their content assets.**

As mentioned previously, you can't eliminate piracy and security leaks altogether, but you can help to limit and moderate them. My advice is to look at the big picture and discard the fragmented approach when looking for potential holes in your wall. For example, there is a little known fact that statistically one of the major protected content leaks comes from dubbing and subtitling houses/services. Which are often foreseen from TV people as external bodies, out of reach and under little security control. To fill this gap, in the latest release about our subtitling software, we plan to introduce a new security feature which will help limit this particular leak considerably. (SubtitleNext)

- **Do you think that forensic watermarking could be the step in the right direction when it comes to content security? Please give reasons for your answer.**

At least in terms of preventing professional misuse, this is a really great idea. It also helps tremendously in indexing and searching the stored content, which in huge volumes, can really be a nightmare.

- **Is it possible for broadcasters to work independently to secure their content assets, or do they have to work in tandem with government agencies for to be able to curb piracy?**

Government agencies and authorities in general must create a suitable juridical environment with a regulations framework in place from the outset. The broadcast industry is highly dynamic in nature. Governmental departments tend to walk at a different pace though. Therefore, positioning a useful intermediary in place, such as another NGO, or even better, a professional broadcast association dedicated to the task, seems like a much more effective approach.

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Courtesy of Digital Studio India –The interview was published online at Digital Studio magazine - <http://bit.ly/2bR7enw>

TV Technology Europe's Manufacturer Musings 2016 with PBT EU's GM Vladimir Stanic

(Contact editor Neal Romanek at nromanek@nbmedia.com) Published 2 September 2016

Name: Vladimir Stanic

Job title: General Manager

Company: PlayBox Technology EU (PBTEU – short name)

Number of IBCs you've attended?

For me personally, this IBC is my ninth! For PlayBox Technology EU though, as an independent company from the PlayBox group, this IBC marks its first year as an exhibitor, and we are very excited about that.

What do think will be the big technology trends at this year's IBC?

Definitely virtualisation, cloud, private cloud and hybrid models. Also, software-based broadcasting elements as well as a replacement for the traditional H/W-based. Safety and protection is a big topic right now, also in consideration for disaster recovery workflows. I also see IP streaming and IP-SDI hybrid models for delivery being hot trends, as well as UHD and HDR formats, data, asset and process management.

What's will your company be highlighting at IBC?

We are proud to showcase our EXEcutor Broadcasting Server product lines, original turnkey server solutions based on PlayBox software, which bring enormous value and key advantages for various kinds of projects, workflows and budgets. Secondly, we are also presenting our Subtitle Next line of products and software for the creation, preparation, formatting and delivery of subtitles in almost all broadcasting formats. Thirdly, a product we feel has a bright future ahead is Profuz Lapis. **Profuz LAPIS** is a Business Process and Information Management System. Its purpose is to **replace and/or integrate** in a single system, all processes and data with which an organisation operates. PBTEU is the worldwide and exclusive distributor of this product.

What do you think is the biggest challenge facing the TV industry right now?

IP streaming standardisation as well as virtualisation which includes cloud solutions and developing this model further. Also the OPEX vs CAPEX model of business presents challenges.

Given that the RAI is two meters below sea level, what is your business doing to address climate change?

We have a great respect for the environment and consciously try to develop products which can work in virtual and cloud environments, which in turn encourages and allows for the use of modern power efficiency and green data centres for processing and storage capacity. We are going in this direction to minimise the number of physical server units. Also, the EXEcutor broadcasting server line is designed to be “green” and power and heat-efficient, with costly research and certified new power efficient components.

What are your top tips for trade show survival?

IBC is an excellent show, as it provides the right setting and platform to meet most of your clients and partners, and to make new business. In terms of survival tips, the usual common sense rules apply, such as drink plenty of water, wear comfortable shoes and also plan out your meetings in advance as much as possible. It is all about preparing adequately leading up to the show so that you can get the most out of it when you are there.

What are your favourite place(s) in Amsterdam to unwind and why?

With IBC's timing taking place during the active sport season, I personally enjoy heading over to the Pancake corner restaurant of Leidseplein after the show, were it's possible to watch almost every kind of sport you can ever imagine along with a rather unhealthy spare ribs dinner! Other places where I also enjoy unwinding are the Rembrandt and Van Gogh museums, where you can just appreciate the art and relax.

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<http://www.tvtechnologyeurope.com/interview/manufacturer-musings-vladimir-stanic-playbox-technology/01442>