Agile Technology. Peace of Mind.

POWERED BY jPALIO

jPALIO - Java Portal All In One

Technology Innovation
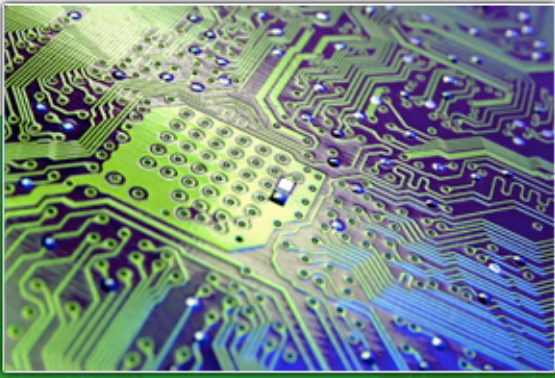
torn

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jPALIO Technology

About TORN Ltd.

jPALIO Technology was developed in 2001 as a consequence of a meticulous execution of the strategy adopted by Torn over the past fourteen years. Today Torn continues to perform its R&D function, markets & promotes the jPALIO framework via consulting, solutions design & integration for various industry sectors. Apart from developing, marketing and selling the jPALIO technology, we focus our efforts on the design and development of specialised and integrated solutions aligned with the specific business needs of our clients in several industries such as:

- Aviation and Airports
- Public Administration
- Education
- Telecommunication
- Manufacturing & Logistics
- Retail
- Insurance
- Smart Grid networks

Over the years we have developed a number of important reference solutions for clients representing all of these industries. We believe that jPALIO is just the right technology, we have the right portfolio of solutions, and that our people have just the right experience and enthusiasm. That is why our mission is to use those opportunities to become a well-known, recognised and respected player in the IT world. And to establish jPALIO Technology as a standard in the "java world".

jPALIO Technology Platform

Over the past 10 years the company has developed a unique technology platform, known as jPALIO (java Portal ALl In One). The jPALIO platform is a universal, intelligent servlet, but it is also a universal data bus and an extremely versatile environment for prototyping, designing and implementing business processes within virtually any known and recognised IT environment. jPALIO can be easily and seamlessly integrated with other systems or solutions due to a wide array of communication connectors available (databases, TCP/IP, XML, XBRL, LDAP, java components). The jPALIO platform has been designed and built in a 3-layer architecture.
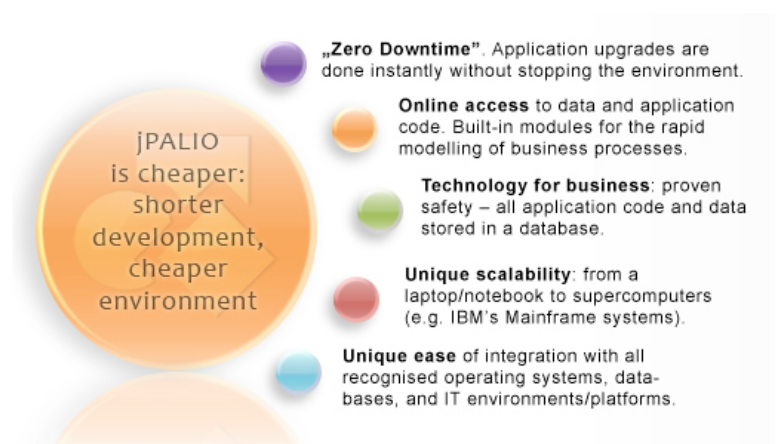
POWERED BY jPALIO

Over the years we have developed a number of important reference solutions for clients from diversified industries (aviation, telecommunication, public administration and others). All of those reference solutions prove the following key points:

- jPALIO proves to be significantly cheaper in terms of both initial investment and the overall TCO.

- jPALIO's scalability is truly unique: from a simple notebook/laptop machine to supercomputers (e.g. IBM's Mainframe systems).

- What is more important, the jPALIO's scalability combined with its online access to data and application code provides customers with the absolutely unique functionality – "zero downtime" - where upgrades (even in large and complex environments) can be done instantly.

- Due to the above projects are delivered faster – it takes significantly less time to develop and deploy solutions across the project hardware environments and platforms.

- Unique ease of integration with other systems.

- Proven and unique performance

Solutions based on the jPALIO Technology Platform presents a lot of competitive advantages:

"Zero Downtime". Application upgrades are done instantly without stopping the environment.

Online access to data and application code. Built-in modules for the rapid modelling of business processes.

Technology for business: proven safety – all application code and data stored in a database.

Unique scalability: from a laptop/notebook to supercomputers (e.g. IBM's Mainframe systems).

Unique ease of integration with all recognised operating systems, databases, and IT environments/platforms.

Why „All in One" ?

- Engine – universal data bus.
- jDesigner – application code management tool.
- CMS – content management module, WYSIWYG editor.
- Workflow – process definition and management/running.
- SQLConnector manager – JDBC connections servicing system, pooling, transactions, maintaining consistency between different databases.
- Modules for building forms, reports; PDF generator.
- Built-in authorisation, authentication, privileges and roles mechanism.
- Scheduler – running background processes, monitoring.
- Internet shop, AdServer – ad banners.
- Mail, Forum, maps, newsletter, WebServices, LDAP.
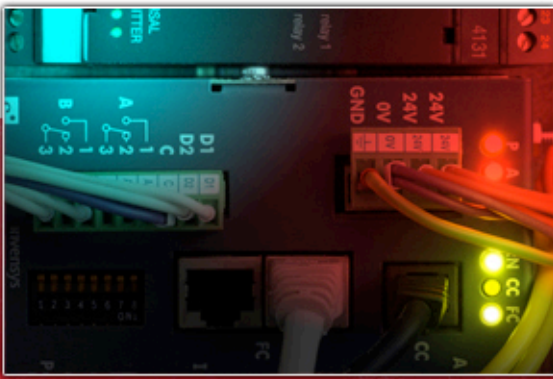
jPALIO Technology

Some system features, Technology Security, Technology Application Availability, Technology Flexibility & Scalability, Technology – jDesigner, Technology – CMS
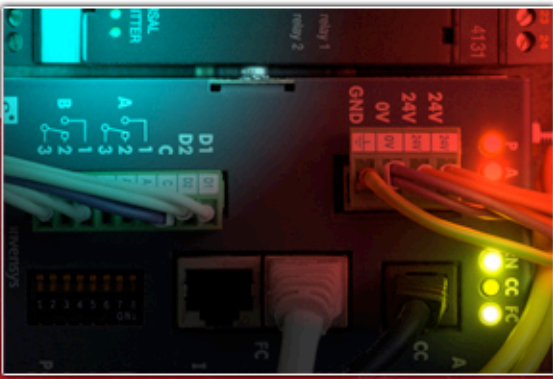
Some system features

- Content management as a separate module (CMS).
- Protection against content modifications in browser addresses bars (checksums are used to prevent tampering with variable values).
- No need for potentially unsafe cookies, which ensures that jPALIO-based systems will support all browsers.
- Support for cluster configurations with load-balancing.
- Support for hierarchical and distributed structures with automated propagation of the latest application code to subordinate servers (the propagation is limited to new versions of specific objects so that there is no need to send the entire code each time) and of the latest versions of jPALIO application servers as well.
- Access limited by roles based on privileges; roles are assigned to users in the context of regions/departments, (users can have roles limited to a specific region/department).
- The user interface is limited to a web browser (no installation necessary on client machines, ease of use on portable computers, a standardized user interface, platform-independence, no need to maintain applications on hundreds of client machines).
- Easy creation of a friendly and fully standardized user interface, a comprehensive system of tooltips (selecting data from lists, dialog boxes etc.) and data input validation (forms are built automatically with data input validation logic).
- Storing user passwords in a database in an encrypted form.
- Gzip compression can be enabled for transferred data, which is especially useful over slow connections (like dial-up) an option to use the SSL protocol for communications among jPALIO servers and between jPALIO and a client (web browser).
- Database connection pool management that ensures a high level of performance and reliability in data exchange as well as automatic restoration of broken connections.
- Support for token and smart card-based authorization.

Technology Security

- Preset complexity password system, cyclical enforcement of password change, one -time passwords, PKI.
- Encripted password storing.
- System's users' activity monitoring.
- No possibility to change variables sent in the address bar through the use of control sums.
- Supports SSL, electronic cards and tokens.
- Access restricted by the roles build from privileges; roles assigned to users in the context of organisational regions/units.
- No need for continuous technical supervision of a system – malfunction monitoring.
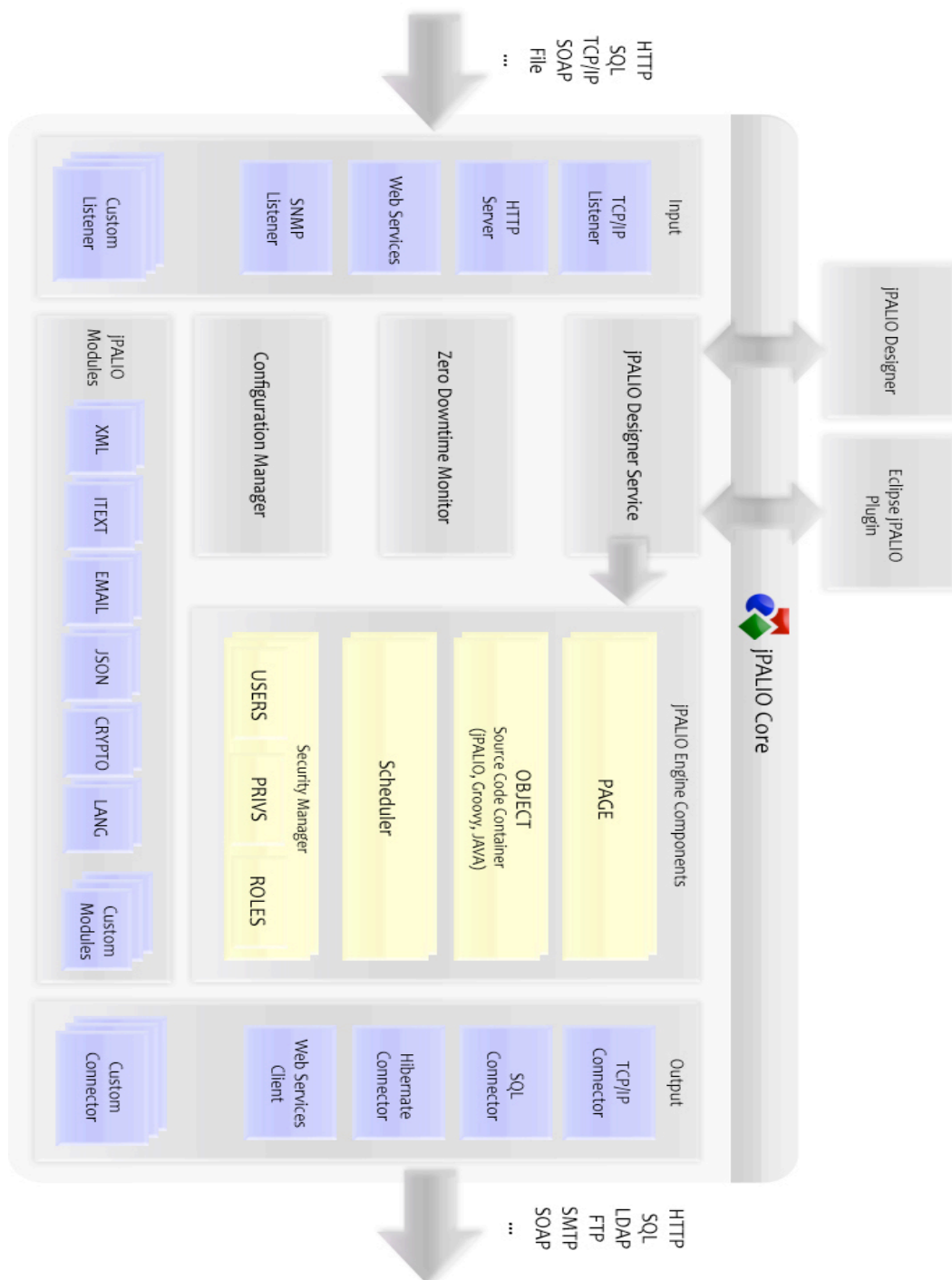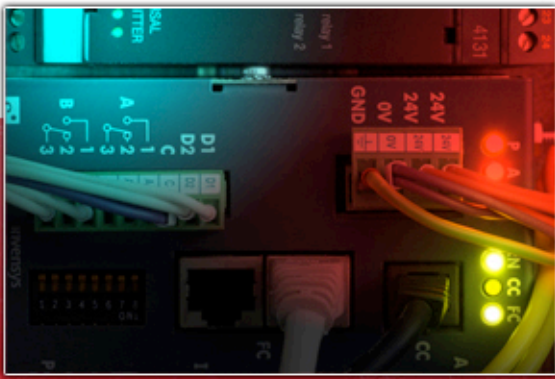- Backup Connector – data security.

jPALIO Technology

Technology Application Availability

- Through WWW browser and Java applications.
- No need to install and maintain applications on hundreds of user computers.
- Access to other IT systems through: JDBC, Java, files, LDAP, XML, TCP/IP, SMTP.
- Independence from operating systems (Windows,Unix,Linux).
- Dynamic content and multimedia management through specialised modules.
- jPALIO as the integration platform for other solutions – data bus.
- Can be managed by users equipped with the basic understanding of IT.

Technology – CMS

CMS as a system for Virtual Newsroom (editing):
- Content management for non-IT professionals;
- Definition of documents access rights.
- Many documents' attributes (validity dates, status, destination locations, etc)

Technology Flexibility & Scalability

- Includes RAD – type tools (Rapid Application Development) – rapid development and implementation of new functionalities.
- Application code stored a database automatic versioning.
- Running of a new version of an application or a patch does not require system restart.
- Full monitoring of threads states.
- Possibility to work in a cluster structure with load balancing.
- Communicates with any database, ensures high performance and robustness – connection pooling (Oracle, DB2, Postgres, SQL).
- Ease of modification and further development of application code – automatic recompilation.
- Groovy as the language for creating business logic.

Technology – jDesigner

jDesigner as a tool for rapid application development and prototyping:
- Website definition;
- Application code development from objects;
- Priviledge and access definition.

jPALIO – Functional Architecture

jPALIO – Functional Architecture

jPALIO Application Layer	CMS	EDOX	UNIBOX	Virtual Classroom
jPALIO Extensions Layer	ESB	Workflow	MVC	jPALIO Plugins

jPALIO Core Layer

jPALIO Core

Application Server	Servlet Container Tomcat, JBoss, IBM WebSphere, BEA Weblogic
Runtime Environment	Java Virtual Machine Oracle/Sun, IBM
Operating System	zVM, zOS, Linux, Unix, Windows
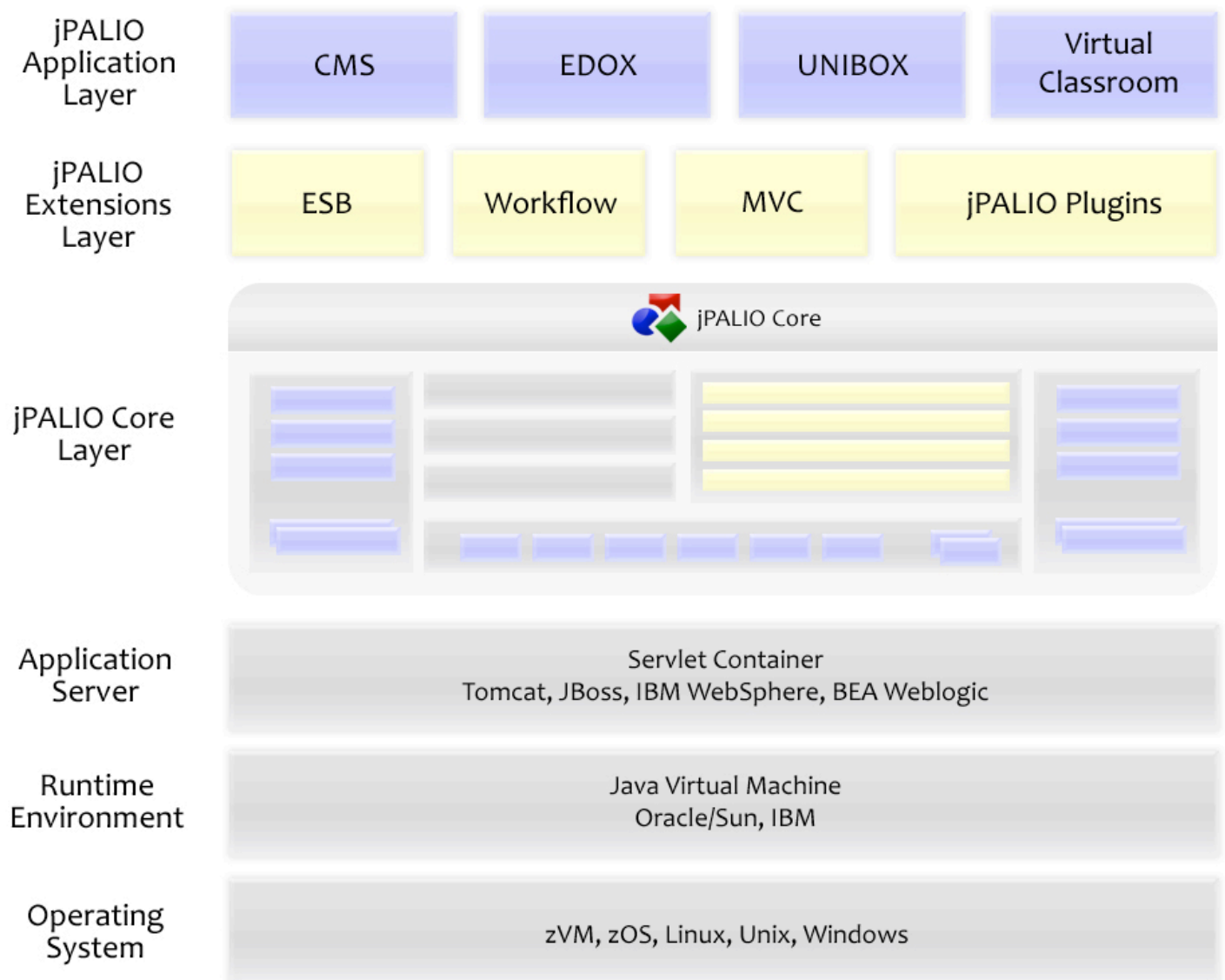
# Selected References

jPALIO in Technical Supervision Office

- Features:
  - Full inventory of computer hardware in Poland
  - Control purchasing, liquidation and enhancement with full history
  - On-line reports on H/W status, value, license control
  - Expense planning based on precisely calculated needs

jPALIO in the Polish Hunting Association

- Headquarters, Research Station in Czempiń.
- 49 Regional Management Centers, 2.5k Local Branches.
- Around 70 breading centers.
- 100k hunters.
- Organisation of Outdoor shooting championships – notebook with jPALIO & PostgreSQL, min. Pentium II 1GHz, 512 RAM
- Synchronization with the central systems via export files
- Automated support for the import conflict resolution

jPALIO in Education

- **Academy of Humanities in Pułtusk**
  - 6000 students, every student and academic is a user of the system
  - Full candidate management process
  - Modules: teaching, personal data, payments/fees, stipends/grants, etc.
  - Our own anti-plagiarist system
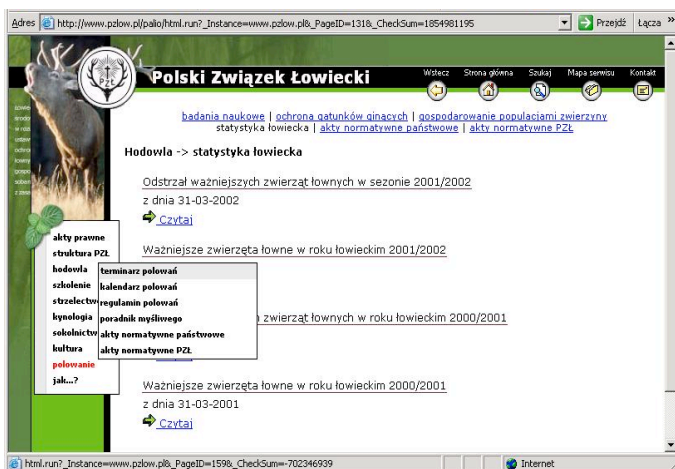
- **iTelemetria – smart grid data gathering**